

Date: 22.08.2022

**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **Aeronautical Engineering**

The 9th Board of Studies meeting of Regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-23 was conducted on 22.08.2022 (Monday) at 2.45 P.M. in the Board room, HICET, Coimbatore through online Mode (Google Meet Link: <https://meet.google.com/ghd-uvad-cuv> )

The following members were present.

S.No	Name of the Person	Department	Position
1	Dr. V.T. Gopinathan	Associate Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Chairman
2	Dr. M.Sakthivel	Associate Professor, Department of Mechanical Engineering, Anna University, Regional campus, Coimbatore.	University Nominee
3	Dr. S.Venkatachalam	Associate Professor, Department of Aerospace Engineering, Karunya University, Coimbatore.	Subject Expert
4	Dr. R.Arravind	Professor & Head, Department of Aeronautical Engineering, Paavai Engineering College, Namakkal.	Subject Expert
5	Wg.Cdr.Sathishkumar	CEO, Planet-X Aerospace, Madurai.	Industry Expert
6	Dr. A.S. Ganapathy	Assistant Professor, University of Bristol, UK.	Member from QIS rated Institution
7	Mr.M.Moscs Devaprasanna	Assistant Professor, Department of Aeronautical Engineering, Hindusthan Institute of Technology, Coimbatore.	Member from HITECH
8	Mr. Alexander A	Deputy Manager, Market Research & Competitive Intelligence, Quest Global, Bengaluru.	Alumni Member

9	Mr. Veeramanikandan R	Assistant Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Member
10	Mr. Saravanan R	Assistant Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Member
11	Mr. Saravanakumar V	Assistant Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Member
12	Dr. Ganesh M	Associate Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Autonomous Coordinator
13	Mr. Kiruthik Aditya	IV year, Department of Aeronautical Engineering	Student Member
14	Mr.M.Akask Lourdes	III year, Department of Aeronautical Engineering	Student Member
15	Mr.Bharanidharan	II year, Department of Aeronautical Engineering	Student Member

- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- Followed by, Chairman presented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 02.02.2022, was approved.
- The chairman discussed the scheme of curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**


1. All the BOS members, appreciated the Curriculum scheme of 2022 regulations.
2. Members suggested that, Internship can be evaluated in later semester not in 4<sup>th</sup> semester.
3. Drone technology related courses can be included more towards employability perspective.

4. Course content and exercises shall be balanced properly while framing the Syllabus for Aircraft Design Project.
5. Alumni expert suggested that, Data exploration and problem solving by using PYTHON can be included in curriculum.
6. Japanese language can be preferred as a foreign language VAC (if any) in mechanical related domain.
7. DO 178 contents can be included in Avionics Subject.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.E. Aeronautical Engineering and the same were presented and discussed. It was suggested to move on to Academic council.
- The syllabus for the Semester – I under regulation 2022 passed by the Board of Science and Humanities, Information Technology, Mechanical Engineering for the students admitted during the academic year 2022 – 2023 are permitted to move on Academic Council.
- The syllabi of III semester of the UG Programmes for the students admitted during the academic year 2021 - 2022 and onwards was passed and permitted to move on Academic Council.
- The syllabi of V semester of the UG Programmes for the students admitted during the academic year 2020 - 2021 and onwards was passed and permitted to move on Academic Council.
- The syllabi of VII semester of the UG Programmes for the students admitted during the academic year 2019 - 2020 and onwards was passed and permitted to move on Academic Council.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting came to an end at 04.00 pm with vote of thanks.

  
Chairman  
(Board of Studies)  
**Chairman - BoS  
AERO - HiCET**

**Enclose:**

1. Previous BoS Minutes-ATR
2. Copy of Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



**Action Taken Report on BoS**

Name of the Department: Aeronautical Engineering

The meeting of 9th Board of Studies of Regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 ODD semester was conducted on 22.08.2022 (Monday) at 2.45 P.M. **in the Online Mode (Google Meet).**


(Meet Link: <https://meet.google.com/ghd-uvad-cuv> )

**(i) Courses Introduced under Regulation 2022:**

S.No.	Regulation	Course code with name	Credits
1	2022	22MA1101-Matrices and Calculus	4
2	2022	22ME1201-Engineering Drawing	3
3	2022	22HE1151-English for Engineers	3
4	2022	22PH1151-Physics for Non-Circuit Engineering	3
5	2022	22IT1151-Python Programming and Practices	3
6	2022	22HE1071-Universal Human Values	2
7	2022	22HE1072-Entrepreneurship & Innovation	1
8	2022	22MC1091-அறிவியல் தமிழ்	0
9	2022	22MC1092-Indian Constitution	0

**General Recommendations:**

S.No.	Suggestion given in the BoS experts	Action taken
1	Japanese language can be preferred as a foreign language VAC (if any) in mechanical related domain.	Considered
2	Members suggested that, Internship can be evaluated in later semester not in 4 <sup>th</sup> semester.	Considered

  
CHAIRMAN  
BoS/AERO  
**Chairman - BoS**  
**AERO - HiCET**



Date: 15.02.2023

**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
**MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **Aeronautical Engineering**

The 10th Board of Studies meeting of Regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-23 was conducted on 15.02.2023

(Wednesday) at 10.00 A.M. in the Boardroom, HICET, Coimbatore through online

Mode (Google Meet Link: <https://meet.google.com/acb-wtyz-gbh> )

The following members were present.

S.No	Name of the Person	Department	Position
1	Dr. V.T. Gopinathan	Associate Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Chairman
2	Dr. M.Sakthivel	Associate Professor, Department of Mechanical Engineering, Anna University, Regional campus, Coimbatore.	University Nominee
3	Dr. S.Venkatachalam	Associate Professor, Department of Aerospace Engineering, Karunya University, Coimbatore.	Subject Expert
4	Dr. R.Arravind	Professor & Head, Department of Aeronautical Engineering, Paavai Engineering College, Namakkal.	Subject Expert
5	Mr. Asvath Arunraj	Manager, Vibrant NDT Services Pvt.Ltd, Chennai.	Industry Expert
6	Dr. S. Gurusideswar	Assistant Professor, Department of Aerospace Engineering, SRM Institute of Science and Technology, Chennai.	Member from QIS rated Institution
7	Mr.Maheswaran N	Assistant Professor, Department of Aeronautical Engineering, Hindusthan Institute of Technology, Coimbatore.	Member from HiTECH
8	Mr. Alexander A	Deputy Manager, Market Research & Competitive Intelligence, Quest Global, Bengaluru.	Alumni Member

9	Mr. Veeramanikandan R	Assistant Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Member
10	Mr. Saravanan R	Assistant Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Member
11	Mr. Saravanakumar V	Assistant Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Member
12	Dr. Ganesh M	Associate Professor, Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Autonomous Coordinator
13	Mr. Suhail Ahmed S	IV year, Department of Aeronautical Engineering	Student Member
14	Ms. Gopika G Nair	III year, Department of Aeronautical Engineering	Student Member
15	Mr. Francis Immanuael	II year, Department of Aeronautical Engineering	Student Member

- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- Followed by, Chairman presented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 22.08.2022, was approved.
- The chairman discussed the scheme of curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2019 Curriculum**

- As per Regulations 2019, The Students are permitted to undergo one Professional Elective Course in NPTEL/SWAYAM/MOOCs etc.as a Credit transfer course.
- For credit transfer course, Aircraft Design will be included in PE-IV (8<sup>th</sup> semester), which was introduced for FastTrack students during VI semester.

### **For the Regulations 2022 Curriculum**

1. All the BOS members appreciated the Curriculum scheme of 2022 regulations.
2. Airline and Airport operation, Supply chain management related subjects can be included.
3. After marketing Technical publication courses, PLM courses can be introduced as a mandatory course.
4. Programming languages can be strengthened. (Business analyst for Aero applications, data exploration)
5. 22AE7201 Computational Fluid Dynamics could be offered as a professional elective course (PEC).
6. Digital Avionics subject can be offered as a mandatory paper during VII semester.
7. Industry-oriented courses may be offered by providing lectures by industry experts, Example: NDT Techniques, UAV, Additive Manufacturing etc.
8. Composite materials fabrication related experiments can be included.
9. In PE vertical –II, Helicopter Theory can be replaced by Helicopter Aerodynamics.
10. Lean manufacturing subject can be included in PE Vertical VI.
11. In minor degree courses, Fundamentals of UAV and Introduction to Quadcopter can be combined.
12. In PE vertical –II, Experimental Aerodynamics and Industrial Aerodynamics can be combined.

**The following resolutions were made in the Board of Studies meeting,**

#### **For Regulations 2019:**

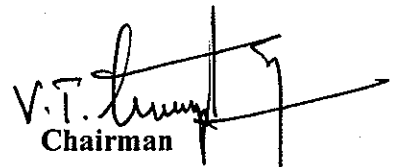
- In almost all the courses, changes have been made as per the Local, Regional, National and Global needs.
- The curriculum and syllabi of R2019/2019R for the IV semester subjects of B.E Aeronautical Engineering program for the students admitted during the academic year 2021 - 2022 and onwards was permitted to move on to Academic Council.
- The curriculum and syllabi for VI semesters of R2019 were introduced for B.E Aeronautical Engineering program for the students admitted in the academic year 2020-21 and onwards was permitted to move on to Academic Council.
- The curriculum and syllabi for VIII semesters of R2019 were introduced for B.E Aeronautical Engineering program for the students admitted in the academic year 2019-20 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that; the Suggestions given by the Board of Studies members are to be incorporated in R2019/2019R.

- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

**For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.E. Aeronautical Engineering and the same were presented and discussed. It was suggested to move on to Academic council.
- The syllabus for the Semester – II under regulation 2022 passed by the Board of Science and Humanities, Information Technology, Mechanical Engineering are permitted to move on Academic Council by the members of Aeronautical Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended at 12.00 P.M with vote of thanks.

  
Chairman  
(Board of Studies)  
**Chairman - BoS  
AERO - HiCET**

**Enclose:**

1. Previous BoS Minutes-ATR
2. Copy of Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
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**Hindusthan College of Engineering and Technology**  
Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Othakalmandabam Post, Coimbatore

**Department of Aeronautical Engineering**

Date: **27.02.2023**

**Action Taken Report on BoS**

Name of the Department: Aeronautical Engineering

The 10th Board of Studies meeting of Regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-23 was conducted on 15.02.2023 (Wednesday) at 10.00 A.M. in the Boardroom, HICET, Coimbatore through online Mode

(Google Meet Link: <https://meet.google.com/acb-wtyz-gbh>)

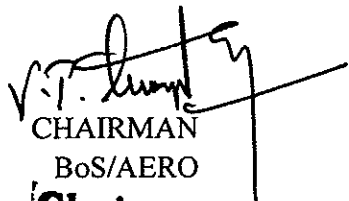
**(i) Courses Introduced under Regulation 2022:**

S.No.	Regulation	Course code with name	Credits
1	2022	22MA2101- Differential Equations and Complex Analysis	4
2	2022	22CY2101-Environmental Studies	2
3	2022	22PH2101-Basics Of Material Science	2
4	2022	22ME2101-Engineering Mechanics	3
5	2022	22CY2152-Applied Chemistry	3
6	2022	22HE2151-Effective Technical Communication	3
7	2022	22ME2001-Engineering Practices	2
8	2022	22HE2071-Design Thinking	2
9	2022	22HE2072-Soft Skills -1	1
10	2022	22MC2091-தமிழர்மரபு	0
11	2022	22MC2093-NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	0

**General Recommendations:**

S.No.	Suggestion given in the BoS experts	Action taken
1	Airline and Airport operation, Supply chain management related subjects can be included.	Considered
2	Industry-oriented courses may be offered by providing lectures by industry experts, Example: NDT Techniques, UAV, Additive Manufacturing etc.	Considered
3	Programming languages can be strengthened. (Business analyst for Aero applications, data exploration)	Considered

4	Composite materials fabrication related experiments can be included.	Considered
5	Digital Avionics subject can be offered as a mandatory paper during VII semester.	Considered

  
 CHAIRMAN  
 BoS/AERO  
**Chairman - BoS**  
**AERO - HICET**



**DEPARTMENT OF AUTOMOBILE ENGINEERING**

Date: 23.08.2022

**NINETH BOS MEETING MINUTES**

The Ninth BOS meeting of regulation R2022 and R2019 for the academic year 2022 – 23 was conducted on 23.08.2022 in hybrid mode (online using Google Meet and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for first semester and R2019 with all professional elective courses, open elective courses and newly added courses.

The following members were present

S.No.	Name of the Expert	Affiliation	Nomination
1	Dr Sabarinathan C	Professor and Head / Automobile Engineering, Hindusthan College of Engineering and Technology	Chairman
2	Dr Sakthivel M	Associate Professor, Department of Mechanical Engineering, Anna University, Regional Campus Coimbatore	University Nominee
3	Dr Somasundaram P	Professor and Head, Department of Automobile Engineering, Kongu Engineering College, Erode.	Subject Expert
4	Dr Bharathi Mohan M P	Assistant Professor (SG), Department of Automobile Engineering, PSG College of Technology, Coimbatore.	Subject Expert
5	Mr Manikandan G	Senior Manager - Controlling, Daimler India Commercial Vehicles, Chennai	Industry Expert
6	Mr Sivakumar P K	Regional Training Manager, Volvo Eicher Commercial vehicles Pvt. Ltd.	Industry Expert – Special Invitee
7	Mr Arun R,	Senior Section Manager, Sales and marketing, John Deere tractors Pvt. Ltd, Kanchipuram	Alumni Expert
8	Dr Adel Ahmed	Academic President Birmingham City University, UK.	QS Ranked # 87 Institution – Special Invitee



9	Mr Dharmaraj N (F/o Praveen Sri Raam, IV Yr)	Lab Instructor, Department of Mechanical Engineering, PSG College of Technology, Coimbatore	Parent
10	Mrs Anitha Kumari P (M/o Ambadi A, III yr)	Teacher, - Govt Town UP school Kayamkulam, Alappuzha district, Kerala.	Parent
11	Dr Jeyalakshmi P	Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
12	Dr.Sankar Ganesh R	Associate Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
13	Mr Yogaraja J	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
14	Mr Krishnaraj J	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
15	M Samuel Gemsprim M	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
16	Mr Ragu S	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
17	Mr Naveen Raj D	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
18	Mr Mujiburrahman K	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
19	Mr Prabhu G	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
20	Mr Satheesh Kumar K	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
21	Mr Prakash R S	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
22	Mr Barathkannan P	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
23	Mr Sasikumar S	Final Year Automobile Engineering	Student Member



24	Mr. Gowtham T	Third Year Automobile Engineering	Student Member
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The chairman of the BOS, welcomed all the dignitaries for the meeting. He has presented the department vision and mission statements to the forum. Also, he has given an outline of the institution and department and salient features of the new Regulation 2022 Curriculum and Syllabi.

Followed by he has also presented the suggestions given by the experts and the action taken during the eighth BOS meeting which was held during 04.02.2022 and action taken report on the suggestions.

The chairman has presented the curriculum and syllabus of R2019 and curriculum of R2022 with syllabus of I semester courses.

**Comments given by BoS members:**

**Dr Sakthivel M (AU Nominee):**

- He has appreciated the curriculum design and addition of new professional elective courses.
- Also, he expressed his appreciation for the minor degree and honors degree verticals.

**Dr Somasundaram P (Subject Expert):**

- He suggested to add some exercises related to computational fluid dynamics in any of the designing courses

**Dr Bharathi Mohan M P (Subject Expert):**

- He suggested to add topics related to Rapid prototyping and product innovation.
- Further, he suggested to engage the students in activities related to three-dimensional printing, using the Idea lab.

**Dr. Adel Ahamed:**

- He appreciated the curriculum and regulation of R2022.
- He has suggested to add some real-time problem identification in automobiles which should make the students industry ready.

**Mr Manikandan G (Industry Expert):**



- From his experience, Mr.Manikandan has mentioned about inclusion of EV technology in any of the suitable courses.
- Especially, he has mentioned about comparison of electric vehicles and its IC powered counterparts.

**Mr Siva P K (Industry Expert):**

- He has suggested to add some latest courses related to electric vehicles.
- He also suggested to add 'Principles of Management' course in any of these semesters.

**Dr.P.Jeyalakshmi (Faculty Member):**

- She has suggested to add a course in professional elective related to green technology.

**Mr.J.Krishnaraj (Faculty Member):**

- He has suggested to add a course in professional elective related to Vehicle ECU Tuning and Remapping

**Mr.Gowtham T (Student Member):**

- He has suggested to add latest emerging technologies to the courses wherever possible.

**Recommendations by BoS members (Subject Related)**

**The following points were summarized by chairman as per the suggestions of BoS members**

**In Semester IV**

- In Two and Three-wheeler technology (21AU4203) the following topics are to be added
  - Electric Vehicle Design Consideration
  - Electric Vehicle Layout & ergonomics
  - Electric Vehicle Parts, Drives & Drive Modes
  - Electric Vehicle Safety and Charging Systems
  - Regenerative Braking Systems
- In Computer Aided Automotive Engine Components Design Lab (21AU4001) the following experiment to be removed
  - Design and Assembly of Intake and Exhaust Manifolds



The following experiments to be added

- Surface air flow analysis of the automotive vehicle body
- Fluid flow analysis of internal pipe line of vehicle fuelling systems
- Introduction to Rapid Prototyping
- Prototype of Developing the Automotive Components / Body
- In Two and Three-wheeler technology (21AU4002) the following experiments to be added
  - Study of Electric Two-Wheeler Chassis layout and its Components
  - Study of Electric Three-wheeler Chassis and body trims with its associated electrical and electronics components
  - Comparative study of electric two-wheeler with ICE powered two-wheeler

#### **In Professional Electives**

- The two following courses to be in Professional electives
  - Principles of Management
  - Rapid Prototyping and Reverse Engineering

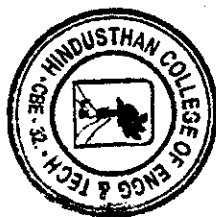
After the presentation over, the chairman shared the syllabus of the new implementation subjects.

- The following courses are introduced in the academic year 2019 – 2020 under autonomous regulation R2019 with approval of BoS members.

Semester	Course Code	Course Name
VIII	21AU8313	Principles of Management
	21AU8314	Rapid Prototyping and Reverse Engineering

**The following resolutions were made in the Board of Studies meeting,**

- Department Vision and Mission - The vision and mission statements of the department were found to be good and accepted without any changes.
- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of Regulation 2020 for the 1 semester subjects were passed by the Science and Humanities board and permitted to move on Academic Council by the BoS



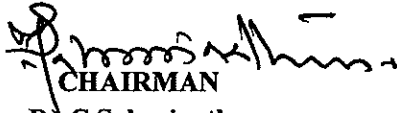
members of Automobile Engineering for the students admitted during the academic year 2022-2023 and onwards.

- The curriculum and syllabi of R2019 for the IV semester subjects onwards of B.E Automobile Engineering program for the students admitted during the academic year 2021 - 2022 and onwards was permitted to move on to Academic Council.
- As per the suggestion of CDC, the professional elective verticals such as 'Modern Mobility Systems', 'Product and Process Development', 'Robotics and Automation', 'Digital and Green Manufacturing', 'Clean and Green Energy Technologies', 'Logistics and Supply Chain Management' to be added to the professional electives of R2019 regulation students admitted during the academic year 2021 - 2022.
- Also, the minor degree program and honors degree program to be added to the regulation of students admitted during the academic year 2021 - 2022.
- The Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in all years of R2019 curriculum.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

With these words the chairman thanked the gathering for their presence in the BOS meeting.

**Overall Percentage of New Concepts Introduced – 25%**



  
CHAIRMAN  
Dr. C. Sabarinathan  
**Chairman - BoS**  
**AUTO - HICET**

Date: 02.09.2022

**ACTION TAKEN REPORT on Nineth BoS**

Name of the Department: **Automobile Engineering**

The Nineth BOS meeting of regulation R2022 and R2019 for the academic year 2022 – 23 was conducted on 23.08.2022 in hybrid mode (online using Google Meet and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for first semester and R2019 with all professional elective courses, open elective courses and newly added courses.

**(I) Syllabus Revision for the regulation 2019**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21AU4203 - Two and Three-wheeler technology	Incorporated	2.8%
2	21AU4001 - Computer Aided Automotive Engine Components Design Lab	Incorporated	5.6%
3	21AU4002 - Two and Three-wheeler technology laboratory	Incorporated	5.6%

**Overall Syllabus Revision: 25 %**

**(II) Courses Introduced under Regulation 2019**

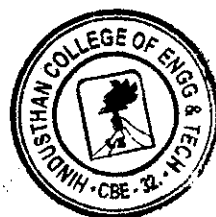
S.No.	Regulation	Course code with name		Credits
1.	2019	21AU8313	Principles of Management	3
2.	2019	21AU8314	Rapid Prototyping and Reverse Engineering	3

**(III) Courses Introduced under Regulation 2022**

S.No.	Regulation	Course code with name		Credits
1.	2022	22AU3201	Manufacturing Technology	3
2.	2022	22AU3202	Automotive Thermodynamics	4
3.	2022	22AU3203	Automotive Structures and Design	4

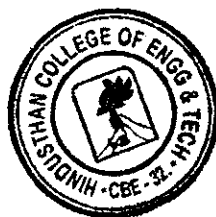


4.	2022	22AU3251	Fundamentals of Automotive systems	3
5.	2022	22AU3001	Manufacturing Technology Lab	2
6.	2022	22AU3002	Automotive Structures and Design Lab	2
7.	2022	22AU3072	Computer Aided Drawing Laboratory	2
8.	2022	22AU4201	Automotive Chassis components Design	3
9.	2022	22AU4202	Automotive Electricals and Electronics systems	3
10.	2022	22AU4203	Mechanics of Machines	4
11.	2022	22AU4204	Fluid and Pneumatic systems	3
12.	2022	22AU4251	Fundamentals of Heat Transfer	3
13.	2022	22AU4001	Automotive Electricals and Electronics Laboratory	2
14.	2022	22AU4002	Computer Aided Engine components design Laboratory	2
15.	2022	22AU5201	Vehicle design and data characteristics	4
16.	2022	22AU5202	Automotive Fuels and Lubricants	3
17.	2022	22AU5251	Two and Three-wheeler technology	3
18.	2022	22AU5001	Automotive Fuels and Lubricants Laboratory	2
19.	2022	22AU6201	Vehicle Dynamics	3
20.	2022	22AU6001	Computer Aided Engineering Laboratory	2
21.	2022	22AU6002	Engine Performance and Emission testing laboratory	2
22.	2022	22AU7201	Design of Automotive Transmission systems	3
23.	2022	22AU7202	Engine and Vehicle Management systems	4
24.	2022	22AU7001	Vehicle Maintenance Laboratory	2
25.	2022	22AU6401	Recent Trends in Automotive Technology	3
26.	2022	22AU6402	Automotive Vehicle Safety	3
27.	2022	22AU7401	Automotive Fault diagnosis systems	3
28.	2022	22AU5301	Automotive Materials, Components, Design & Testing	3
29.	2022	22AU5302	Conventional and Futuristic Vehicle Technology	3

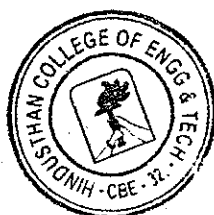




30.	2022	22AU5303	Renewable Powered Off Highway Vehicles and Emission Control Technology	3
31.	2022	22AU6301	Vehicle Health Monitoring, Maintenance and Safety	3
32.	2022	22AU6302	Hybrid and Electric Vehicle Technology	3
33.	2022	22AU7301	Thermal Management of Batteries and Fuel Cells	3
34.	2022	22AU5304	Value Engineering	3
35.	2022	22AU5305	Additive Manufacturing	3
36.	2022	22AU5306	CAD/CAM	3
37.	2022	22AU6303	Ergonomics in Design	3
38.	2022	22AU6304	New Product Development	3
39.	2022	22AU7302	Product Life Cycle Management	3
40.	2022	22AU5307	Value Engineering	3
41.	2022	22AU5308	Additive Manufacturing	3
42.	2022	22AU5309	CAD/CAM	3
43.	2022	22AU6305	Ergonomics in Design	3
44.	2022	22AU6306	New Product Development	3
45.	2022	22AU7303	Product Life Cycle Management	3
46.	2022	22AU5310	Digital Manufacturing and IoT	3
47.	2022	22AU5311	Lean Manufacturing	3
48.	2022	22AU5312	Modern Robotics	3
49.	2022	22AU6307	Green Manufacturing Design and Practices	3
50.	2022	22AU6308	Environment Sustainability and Impact Assessment	3
51.	2022	22AU7304	Green Supply Chain Management	3
52.	2022	22AU5313	Bioenergy Conversion Technologies	3
53.	2022	22AU5314	Carbon Footprint estimation and reduction techniques	3
54.	2022	22AU5315	Energy Conservation in Industries	3
55.	2022	22AU6309	Energy Efficient Buildings	3




56.	2022	22AU6310	Renewable Energy Technologies	3
57.	2022	22AU7305	Equipment for Pollution Control	3
58.	2022	22AU5316	Automation in Manufacturing	3
59.	2022	22AU5317	Material Handling Equipment, Repair and Maintenance	3
60.	2022	22AU5318	Robotics	3
61.	2022	22AU6311	Container Logistics	3
62.	2022	22AU6312	Logistics in Manufacturing, Supply Chain and Distribution	3
63.	2022	22AU7306	Data Science	3
64.	2022	22AU5231	Automotive Engines	3
65.	2022	22AU6231	Automotive Chassis	3
66.	2022	22AU6232	Automotive Transmission	3
67.	2022	22AU7231	Automotive Electronics	3
68.	2022	22AU7232	Intelligent vehicular systems	3
69.	2022	22AU8231	Electric and Hybrid vehicles	3
70.	2022	22AU5203	Automotive Embedded systems	3
71.	2022	22AU6202	Advanced automotive safety systems	3
72.	2022	22AU6203	Electric Vehicles fault diagnosis system	3
73.	2022	22AU7203	Fundamentals of Electric and Hybrid Vehicles	3
74.	2022	22AU7204	Battery Technology	3
75.	2022	22AU8201	Electric and Hybrid vehicle design and data characteristics	3
76.	2022	22AU7701	Internship	2
77.	2022	22AU8901	Project Work/Granted Patent	10



**(IV) General Recommendations:**

S.No.	Suggestions / Comments given by the Members for 2019 Regulation	Action Taken	Report
1.	The following new courses in the semester VIII were recommended to be included in the Regulation 2019: 21AU8213 - Principles of Management 21AU8214 - Rapid Prototyping and Reverse Engineering	Suggestion passed	Suggestion approved
2.	Some changes were proposed to the BoS committee in following courses 21AU4203 - Two and Three Wheeler Technology 21AU4001 - Computer Aided Automotive Engine Components Design Lab 21AU4002 - Two and Three Wheeler Technology Lab	Suggestion passed on the standing committee	Suggestion Approved
S.No	Suggestions / Comments given by the Members for 2022 Regulation	Action Taken	Report
1.	University Nominee and subject experts suggested to add more courses based on Electric vehicles	Suggestion passed on the standing committee	Suggestion Approved
2.	The Industry experts suggested to add comparison of electric vehicles and its IC powered counterparts.	Suggestion passed on the standing committee	Suggestion Approved



  
Chairman  
(Board of Studies)  
**Chairman - BoS  
AUTO - HICET**

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T301H - 010A



## DEPARTMENT OF AUTOMOBILE ENGINEERING

Date: 17.02.2023

### TENTH BOS MEETING MINUTES

The Tenth BOS meeting of regulation R2022 and R2019 for the academic year 2022 – 23 was conducted on 17.02.2023 in hybrid mode (online using Google Meet) and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for Second semester and R2019 with all professional elective courses, open elective courses and newly added courses.

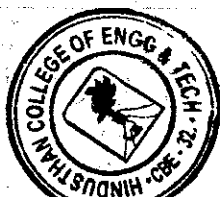
Note: Google meeting link: <https://meet.google.com/uge-igpk-cbm>

The following members were present

S.No.	Name of the Expert	Affiliation	Nomination
1	Dr Sabarinathan C	Professor and Head / Automobile Engineering, Hindusthan College of Engineering and Technology	Chairman
2	Dr Sakthivel M	Associate Professor, Department of Mechanical Engineering, Anna University, Regional Campus Coimbatore	University Nominee
3	Dr Somasundaram P	Professor and Head, Department of Automobile Engineering, Kongu Engineering College, Erode.	Subject Expert
4	Dr Bharathi Mohan M P	Assistant Professor (SG), Department of Automobile Engineering, PSG College of Technology, Coimbatore.	Subject Expert
5	Mr Manikandan G	Senior Manager - Controlling, Daimler India Commercial Vehicles, Chennai	Industry Expert



6	Mr Sivakumar P K	Regional Training Manager, Volvo Eicher Commercial vehicles Pvt. Ltd.	Industry Expert – Special Invitee
7	Mr Arun R,	Senior Section Manager, Sales and marketing, John Deere tractors Pvt. Ltd, Kanchipuram	Alumni Expert
8	Dr Adel Ahmed	Academic President Birmingham City University, UK.	QS Ranked # 87 Institution – Special Invitee
9	Mr Dharmaraj N (F/o Praveen Sri Raam, IV Yr)	Lab Instructor, Department of Mechanical Engineering, PSG College of Technology, Coimbatore	Parent
10	Mrs Anitha Kumari P (M/o Ambadi A, III yr)	Teacher, - Govt Town UP school Kayamkulam, Alappuzha district, Kerala.	Parent
11	Mrs. Mekalai R (M/o. Siddharth S M, II yr)	Headmistress - Lisieux CMI International School, Coimbatore – 641 011	Parent
12	Dr Jeyalakshmi P	Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
13	Dr.Sankar Ganesh R	Associate Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
14	Mr Dhayananthan N	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
15	Mr Yogaraja J	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
16	Mr Krishnaraj J	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
17	M Samuel Gemsprim M	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
18	Mr Ragu S	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member



19	Mr Naveen Raj D	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
20	Mr Mujiburrahman K	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
21	Mr Prabhu G	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
22	Mr Satheesh Kumar K	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
23	Mr Prakash R S	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
24	Mr Barathkannan P	Assistant Professor / Automobile Engg., Hindusthan College of Engineering and Technology	Member
25	Mr. Gowtham T	Third Year Automobile Engineering	Student Member
26	Mr. Balaji C	Second Year Automobile Engineering	Student Member

\*Due to preoccupied schedule, Dr Sakthivel M, Anna University nominee could not attend the meeting.

The chairman of the BOS, welcomed all the dignitaries for the meeting. He has presented the department vision and mission statements to the forum. Also, he has given an outline of the institution and department and salient features of the new Regulation 2022 Curriculum and Syllabi.

Followed by he has also presented the suggestions given by the experts and the action taken during the eighth BOS meeting which was held during 23.08.2022 and action taken report on the suggestions.

The chairman has presented the curriculum and syllabus of R2019 and curriculum of R2022 with syllabus of II semester courses.



**Comments given by BoS members:**

**Dr Somasundaram P (Subject Expert):**

- He suggested to add some electric vehicle embedded system-based courses.

**Dr Bharathi Mohan M P (Subject Expert):**

- He suggested to add 'battery maintenance' topic in electric and hybrid vehicles domain.
- Further, he suggested to extend the environmental science course to III semester students, since the lateral entry students are admitted only in that semester.

**Mr Manikandan G (Industry Expert):**

- He has suggested to add the 'Flex-fuel engines' and 'Hydrogen fuel cells' technologies in alternate fuels-based courses.
- He has also recommended to showcase the recent and future skill requirements for automobile engineers.

**Mr Siva P K (Industry Expert):**

- He has suggested to add the latest and upcoming emission norms and technology in any of the suitable courses.
- He also suggested to add 'Liquified Natural Gas' and 'Compressed Natural Gas' technology in any of suitable courses.

**Mr.Arun R (Alumni):**

- He found that many areas in the fundamental courses are basic and obsolete. He as requested to modernize the respective topics.

**Mr.Gowtham T (Student Member):**

- He has suggested to add latest emerging technologies to the courses wherever possible.





### **Recommendations by BoS members (Subject Related)**

**The following points were summarized by chairman as per the suggestions of BoS members and stakeholders**

#### **In R2022:**

- The following courses are approved for II semester
  - 22MA2101 - Differential equations and complex analysis
  - 22PH2101 - Basics of material science
  - 22CY2101 - Environmental science
  - 22ME2101 - Engineering Mechanics
  - 22CY2152 - Applied Chemistry
  - 22HE2151 - Effective Technical Communication
  - 22ME2001 - Engineering Practices
  - 22HE2071 - Design Thinking
  - 22HE2072 - Soft Skills -1
  - 22MC2091 - தமிழ்மரபு
  - 22MC2092 - Essence of Indian Traditional Knowledge
  - 22MC2191 - NCC \*/NSS / YRC / Sports / Clubs / Society Service
- The following practical courses are approved for III semester
  - 22AU3251 - Fundamentals of Automotive systems
  - 22AU3001 - Manufacturing Technology Lab
  - 22AU3002 - Automotive Structures and Design Lab
  - 22AU3072 - Computer Aided Drawing Laboratory
- The following practical courses are approved for III semester
  - 22AU4251 - Fundamentals of Heat Transfer
  - 22AU4001 - Automotive Electricals and Electronics Laboratory
  - 22AU4002 - Computer Aided Engine components design Laboratory



**In R2019:**

As per the directions of Anna University,

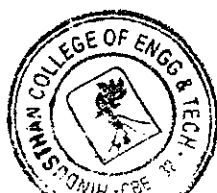
- B E (Hons),
- B E (Hons) with specialization and
- B E with minor degree

Are approved for the academic batch (2021 - 2025) admitted in the academic year 2021 – 2022 under Regulation 2019.

For the same, three specialization verticals for B E (Hons) degree and one vertical for B E with Automobile Engineering minor degree are approved by the Board of Studies.

**Verticals for B E (Hons) in Automobile Engineering**

<b>Semester in which courses are offered</b>	<b>Vertical I Electric and hybrid vehicle development</b>	<b>Vertical II Motorsport Engineering</b>	<b>Vertical III Vehicle research and validation</b>
<b>Semester V</b>	Automotive Embedded systems	Vibration, Noise & Racecar Dynamics	Advanced Automotive Materials
<b>Semester VI</b>	Advanced automotive safety systems	High performance engine design	Noise, Vibration and Harshness
<b>Semester VI</b>	Electric Vehicles fault diagnosis system	Design of High-performance chassis and suspension	Automotive Instrumentation
<b>Semester VII</b>	Fundamentals of Electric and Hybrid Vehicles	Composite materials for Motorsport applications	Testing and Measurement Systems
<b>Semester VII</b>	Battery Technology	Race Electronics and Control Systems	Homologation
<b>Semester VIII</b>	Electric and Hybrid vehicle design and data characteristics	Racing Terminologies	IC Engine Process Modelling



### Verticals for B E with minor degree

Semester in which courses are offered	Vertical offered by Automobile Engineering	Verticals common to all departments		
		Vertical I Fintech and Block Chain	Vertical II Entrepreneurship	Vertical III Environment and Sustainability
<b>Semester V</b>	Automotive Engines	Financial Management	Foundations of Entrepreneurship	Sustainable infrastructure Development
<b>Semester VI</b>	Automotive Chassis	Fundamentals of Investment	Team Building & Leadership Management for Business	Sustainable Agriculture and Environmental Management
<b>Semester VI</b>	Automotive Transmission	Banking, Financial Services and Insurance	Creativity & Innovation in Entrepreneurship	Sustainable Bio Materials
<b>Semester VII</b>	Automotive Electronics	Introduction to Blockchain and its Applications	Principles of Marketing Management for Business	Materials for Energy Sustainability
<b>Semester VII</b>	Intelligent vehicular systems	Fintech Personal Finance and Payments	Human Resource Management for Entrepreneurs	Green Technology
<b>Semester VIII</b>	Electric and Hybrid vehicles	Introduction to Fintech	Financing New Business Ventures	Environmental Quality Monitoring and Analysis

### The following resolutions were made in the Board of Studies meeting,

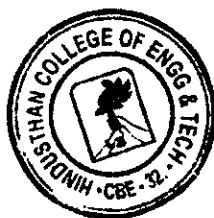
- Department Vision and Mission - The vision and mission statements of the department were found to be good and accepted without any changes.
- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of Regulation 2022 for the II semester subjects were passed by the Science and Humanities board and permitted to move on Academic Council by the BoS members of Automobile Engineering for the students admitted during the academic year 2022-2023 and onwards.




- As per the suggestion of CDC, the Honors degree verticals such as 'Electric and hybrid vehicle development', 'Motorsport Engineering', 'Vehicle research and validation' and minor degree vertical of Automobile Engineering are to be added to the R2019 regulation students admitted during the academic year 2021 - 2022.
- Also, the minor degree program and honors degree program to be added to the regulation of students admitted during the academic year 2021 - 2022.
- The Chairman conveyed that; the Suggestions given by the Board of Studies members are to be incorporated in all years of R2019 curriculum.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

With these words the chairman thanked the gathering for their presence in the BOS meeting.

**Overall Percentage of New Concepts Introduced – 25%**



  
 CHAIRMAN  
 Dr.C.Sabarinathan  
**Chairman - BoS**  
**AUTO - HiCET**

Date: 24.02.2023

**Action taken report on Tenth BoS**

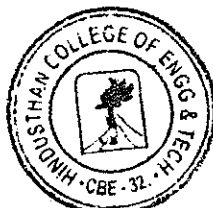
Name of the Department: **Automobile Engineering**

The Tenth BOS meeting of regulation R2022 and R2019 for the academic year 2022 – 23 was conducted on 17.02.2023 in hybrid mode (online using Google Meet) and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for Second semester and R2019 with all professional elective courses, open elective courses and newly added courses.

Note: Google meeting link: <https://meet.google.com/uge-igpk-cbm>

**(I) Courses Introduced under Regulation 2019**

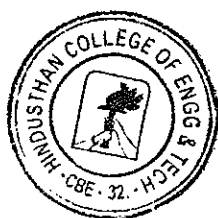
S.No.	Regulation	Course name		Credits
1	2019	21AU52XX	Automotive Embedded systems	3
2	2019	21AU62XX	Advanced automotive safety systems	3
3	2019	21AU62XX	Electric Vehicles fault diagnosis system	3
4	2019	21AU72XX	Fundamentals of Electric and Hybrid Vehicles	3
5	2019	21AU72XX	Battery Technology	3
6	2019	21AU82XX	Electric and Hybrid vehicle design and data characteristics	3
7	2019	21AU52XX	Vibration, Noise & Racecar Dynamics	3
8	2019	21AU62XX	High performance engine design	3
9	2019	21AU62XX	Design of High-performance chassis and suspension	3
10	2019	21AU72XX	Composite materials for Motorsport applications	3
11	2019	21AU72XX	Race Electronics and Control Systems	3
12	2019	21AU82XX	Racing Terminologies	3
13	2019	21AU52XX	Advanced Automotive Materials	3



14	2019	21AU62XX	Noise, Vibration and Harshness	3
15	2019	21AU62XX	Automotive Instrumentation	3
16	2019	21AU72XX	Testing and Measurement Systems	3
17	2019	21AU72XX	Homologation	3
18	2019	21AU82XX	IC Engine Process Modelling	3
19	2019	21AU5231	Automotive Engines	3
20	2019	21AU6231	Automotive Chassis	3
21	2019	21AU6232	Automotive Transmission	3
22	2019	21AU7231	Automotive Electronics	3
23	2019	21AU7232	Intelligent vehicular systems	3
24	2019	21AU8232	Electric and Hybrid vehicles	3

**(III) Courses Introduced under Regulation 2022**

S.No.	Regulation	Course code with name		Credits
1.	2022	22MA2101	Differential equations and complex analysis	4
2.	2022	22PH2101	Basics of material science	2
3.	2022	22CY2101	Environmental science	2
4.	2022	22ME2101	Engineering Mechanics	3
5.	2022	22CY2152	Applied Chemistry	3
6.	2022	22HE2151	Effective Technical Communication	3
7.	2022	22ME2001	Engineering Practices	2
8.	2022	22HE2071	Design Thinking	2
9.	2022	22HE2072	Soft Skills -I	1
10.	2022	22MC2091	தமிழர்மரபு	-
11.	2022	22MC2092	Essence of Indian Traditional Knowledge	-
12.	2022	22AU3251	Fundamentals of Automotive systems	3
13.	2022	22AU3001	Manufacturing Technology Lab	2
14.	2022	22AU3002	Automotive Structures and Design Lab	2



15.	2022	22AU3072	Computer Aided Drawing Laboratory	2
16.	2022	22AU4251	Fundamentals of Heat Transfer	3
17.	2022	22AU4001	Automotive Electricals and Electronics Laboratory	2
18.	2022	22AU4002	Computer Aided Engine components design Laboratory	2

**(IV) General Recommendations:**

S.No.	Suggestions / Comments given by the Members for 2019 Regulation	Action Taken	Report
1	Suggested to add some electric vehicle embedded system-based courses	Suggestion accepted	To be incorporated in higher semesters
2	Suggested to add 'battery maintenance' topic in electric and hybrid vehicles domain	Suggestion accepted	To be incorporated in higher semesters
3	Suggested to add the 'Flex-fuel engines' and 'Hydrogen fuel cells' technologies in alternate fuels-based courses	Suggestion accepted	To be incorporated in higher semesters
4	Suggested to add the latest and upcoming emission norms and technology in any of the suitable courses.	Suggestion accepted	To be incorporated in higher semesters
5	Suggested to add 'Liquified Natural Gas' and 'Compressed Natural Gas' technology in any of suitable courses	Suggestion accepted	To be incorporated in higher semesters



*[Signature]*  
Chairman  
(Board of Studies)

**Chairman - BoS  
AUTO - HiCET**







**HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY**

An Autonomous Institution

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

Accredited with 'A' Grade by NAAC, Accredited by NBA (ECE, MECH, EEE, IT & CSE)

Coimbatore - 641 032



**DEPARTMENT OF CIVIL ENGINEERING**

**DETAILS OF CHANGES CARRIED OUT IN CURRICULUM & SYLLABUS**

**CBCS PATTERN**

**UNDERGRADUATE PROGRAMMES**

**(Tenth Board of studies Meeting)**

No of Course revised in the Tenth Board of studies Meeting	
Total No of Course	50
No of Course revised	24
Percentage of Course revised	48%

**Chairman**

**(Board of Studies)**



Date: 30.08.2022

**BOARD OF STUDIES MEETING**

Name of the Department: Civil Engineering

The Ninth Board of Studies meeting of civil engineering to discuss the curriculum & syllabus of Regulation 2022R for the academic year 2022-2023 was conducted on 29.08.2022 at 02.30 pm in the ONLINE mode through Google Meet.

(Meeting Link: <https://meet.google.com/oe-sc-yk-pvs>)

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr. K. Akil	Professor and Head, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	Chairman
2	Dr. G. Arun Kumar	Associate Professor (CAS), Government College of Engineering, Salem.	University Nominee
3	Dr. S. Shantha Kumar	Professor, School of Civil Engineering, Vellore Institute of Technology (VIT), Vellore.	Academic Expert
4	Dr. V. M. Shanthi	Principal, Government College of Engineering, Srirangam.	Academic Expert
5	Dr. J. Jegan	Professor, Department of Civil Engineering, Anna University, University College of Engineering, Ramanathapuram.	Academic Expert
6	Mr. J. Prem Kumar	Principal Consultant, M/s Infinustech, Coimbatore.	Special invitee
7	Dr. A. Sudhahar	CEO - Dimensions Structural Designs, #57, KrishnasamyMudhaliar Street, Brooke Bond Road, R S Puram, Coimbatore	Industry Member

8	<b>Dr. S. Deepa Shri</b>	Professor Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Member</b>
9	<b>Mr. R. Senthil Kumar</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
10	<b>Mr. A. Alex Livingston Raja</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
11	<b>Ms. K. Saraswathi</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
12	<b>Ms. V. Suresh</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
13	<b>Mr. B. Thamizhinian</b>	Research Scholar, Indian Institute of Technology, Roorkee, Haridwar, Uttarakhand	<b>Alumni Member</b>
14	<b>Ms. R. Sakthi Shree</b>	IV Year Student Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Student Member</b>
15	<b>Ms. K. Nivetha</b>	III Year Student Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Student Member</b>
16	<b>Mr. K. Arun</b>	II Year Student Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Student Member</b>

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the ninth Board of Studies meeting.
- Chairman disseminated Vision and Mission of the Institution and Department Programme Educational Objectives (PEOs), Programme Specific Outcomes (PSOs), Programme Outcomes (POs)
- Chairman also presented the new regulation 2022 and the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).

**Following are the Comments put forth by the Experts:**

S. No	Title of the course viewed by experts	Experts suggestion and comments
1.	Basic Building Services	New course may be introduced in Third semester
2.	Mechanics of Fluids	To be converted as Theory with Lab Component
3.	Applied Hydraulics and Hydraulic Machinery	To be converted as Theory with Lab Component
4.	Fluid Mechanics and Machinery Lab	To be removed
5.	Soil Mechanics	To be converted as Theory with Lab Component
6	Computer Aided Analysis of Structures	New course may be introduced in seventh semester
7	Survey Camp and Internship	Survey Camp with 1 credit in the fourth semester & Internship in seventh semester

- Chairman conveyed that the suggestions given by the Board of Studies members shall be incorporated with the approval of standing committee.

The meeting ended with thanks by the Chairman at 4.30 p.m.

  
Chairman  
(Board of Studies)

**Enclosure :**

1. DAC meeting Minutes
2. Curriculum and Syllabi
3. ATR-Previous BoS



Date: 20.09.2022

**Action Taken Report on 9<sup>th</sup> BOS**

Name of the Department: CIVIL ENGINEERING

The Ninth Board of studies meeting of the Department Civil Engineering was conducted on 29.08.2022. The Board of studies members Reviewed Regulation 2022, Curriculum 2022 of Civil Engineering for the academic year 2022 - 2023. This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

Courses in the Curriculum 2022

S.No	Regulation	Course Code & Name of the Course	Credits
1.	2022	22MA1101 Matrices and Calculus	4
2.	2022	22ME1201 Engineering Drawing	3
3.	2022	22PH1151 Physics for non-circuit engineering	3
4.	2022	22HE1151 English for Engineers	3
5.	2022	22IT1151 Python Programming and Practices	3
6.	2022	22HE1071 Universal Human Values	2
7.	2022	22HE1072 Entrepreneurship & Innovation	1
8.	2022	22MC1091/ 22MC1092 அறிவியல் தமிழ் / Indian Constitution	0
9.	2022	22MA2107 Statistics and Numerical Methods	4
10.	2022	22CY2101 Environmental Studies	2
11.	2022	22PH2101 Basics Material Science	2
12.	2022	22ME2101 Engineering Mechanics	3
13.	2022	22CY2152 Applied Chemistry	3
14.	2022	22HE2151 Effective Technical Communication	3
15.	2022	22ME2001 Engineering Practices	2
16.	2022	22HE2071 Design Thinking	2
17.	2022	22HE2072 Soft Skills – I	1
18.	2022	22MC2091 / 22MC2092 தமிழர்மரபு / Essence of Indian Traditional Knowledge	2
19.	2022	22MC2093 NCC/NSS/YRC/Sports/Clubs Enrolment	0
20.	2022	22MA3108 Transforms and Partial Differential Equations	4

21.	2022	22CE3201	Basic Building Services	2
22.	2022	22CE3202	Construction Materials and Techniques	3
23.	2022	22CE3203	Water Supply and Wastewater Engineering	3
24.	2022	22CE3251	Strength of Materials	4
25.	2022	22CE3252	Fluid Mechanics	3
26.	2022	22CE3001	Water and Wastewater Testing Lab	3
27.	2022	22HE3071	Soft Skills – II	1
28.	2022	22CE3072	Computer Aided Building Drawing	2
29.	2022	22HE4101	IPR and Start-ups	2
30.	2022	22CE4201	Structural Analysis	4
31.	2022	22CE4202	Concrete Technology	3
32.	2022	22CE4203	Highway and Railway Engineering	3
33.	2022	22CE4251	Surveying and Levelling	3
34.	2022	22CE4252	Soil Mechanics	3
35.	2022	22CE4253	Hydraulic Engineering	3
36.	2022	22CE4001	Concrete and Highway Engineering Lab	3
37.	2022	22HE4071	Soft Skills – III	1
38.	2022	22CE5201	Design of RC Elements	4
39.	2022	22CE5202	Foundation Engineering	3
40.	2022	22CE5251	Construction Project Management	3
41.	2022	22CE5001	Design and Drawing of RC Structures	3
42.	2022	22HE5071	Soft Skills – IV / Foreign Language	1
43.	2022	22CE5072	Survey Camp*	3
44.	2022	22CE6201	Design of Steel Elements	4
45.	2022	22HE6071	Soft Skills - V	2
46.	2022	22CE6001	Design and Drawing of Steel Structures	3
47.	2022	22CE7201	Estimation, Costing and Valuation	4
48.	2022	22CE7202	Water Resources and Irrigation Engineering	3
49.	2022	22CE7001	Computer Aided Analysis of Structures	3
50.	2022	22CE7701	Internship – I *	1
51.	2022	22CE8901	Project Work / Granted Patent	10



# Professional Elective Courses in the Curriculum 2022

S.No	Regulation	Course Code & Name of the Course	Credits
1.	2022	22CE5301 Concrete Structures	3
2.	2022	22CE5302 Steel Structures	3
3.	2022	22CE5303 Pre-fabricated Structure	3
4.	2022	22CE6301 Pre stressed concrete Structures	3
5.	2022	22CE6302 Rehabilitation / Heritage Restoration	3
6.	2022	22CE7301 Dynamics and Earthquake Resistant Structures	3
7.	2022	22CE7302 Introduction to Finite Element Method	3
8.	2022	22CE5304 Formwork Engineering	3
9.	2022	22CE5305 Construction Equipment and Machinery	3
10.	2022	22CE5306 Sustainable Construction and Lean Construction	3
11.	2022	22CE6303 Construction Safety and Risk Management	3
12.	2022	22CE6304 Advanced Construction Techniques	3
13.	2022	22CE7303 Energy Efficient Buildings	3
14.	2022	22CE7304 Green Buildings	3
15.	2022	22CE5307 Geo-Environmental Engineering	3
16.	2022	22CE5308 Ground Improvement Techniques	3
17.	2022	22CE5309 Soil Dynamics and Machine Foundations	3
18.	2022	22CE6305 Rock Mechanics	3
19.	2022	22CE6306 Earth and Earth Retaining Structures	3
20.	2022	22CE7305 Pile Foundation	3
21.	2022	22CE7306 Tunneling Engineering	3
22.	2022	22CE5310 Total Station and GPS Surveying	3
23.	2022	22CE5311 Remote Sensing Concepts	3
24.	2022	22CE5312 Satellite Image Processing	3

25.	2022	22CE6307	Cartography and GIS	3
26.	2022	22CE6308	Photo grammetry	3
27.	2022	22CE7307	Airborne and Terrestrial laser Mapping	3
28.	2022	22CE7308	Hydrographic Surveying	3
29.	2022	22CE5313	Airports and Harbours	3
30.	2022	22CE5314	Traffic Engineering and Management	3
31.	2022	22CE5315	Urban Planning and Development	3
32.	2022	22CE6309	Smart cities	3
33.	2022	22CE6310	Intelligent Transport Systems	3
34.	2022	22CE7309	Pavement Engineering	3
35.	2022	22CE7310	Transportation planning Process	3
36.	2022	22CE5316	Climate Change Adaptation and Mitigation	3
37.	2022	22CE5317	Air and Noise Pollution Control Engineering	3
38.	2022	22CE5318	Environmental Impact Assessment	3
39.	2022	22CE6311	Industrial Wastewater Management	3
40.	2022	22CE6312	Solid and Hazardous Waste Management	3
41.	2022	22CE7311	Environmental Policy and Legislations	3
42.	2022	22CE7312	Environment, Health and Safety	3
43.	2022	22CE5319	Hydrology	3
44.	2022	22CE5320	Groundwater Engineering	3
45.	2022	22CE5321	Water Resources Systems Engineering	3
46.	2022	22CE6313	Watershed Conservation and Management	3
47.	2022	22CE6314	Integrated Water Resources Management	3
48.	2022	22CE7313	Urban Water Infrastructure	3
49.	2022	22CE7314	Water Quality and Management	3

### Open Elective Courses offered by Civil Engineering in the Curriculum 2022

S.No	Regulation	Course Code & Name of the Course	Credits
1.	2022	22CE5231 Surveying Practices	3
2.	2022	22CE6231 Construction Technology	3
3.	2022	22CE6401 Climate Change and its Impact	3
4.	2022	22CE6402 Environment and Social Impact Assessment	3

### B.E. (Minor) Civil Engineering Degree Courses in the Curriculum 2022

S.No	Regulation	Course Code & Name of the Course	Credits
1.	2022	22CE5231 Surveying Practices	3
2.	2022	22CE6231 Construction Technology	3
3.	2022	22CE6232 Soil and Foundations	3
4.	2022	22CE7231 Structural Analysis and Design	3
5.	2022	22CE7232 Water and Wastewater Treatment	3
6.	2022	22CE8231 Quantity Estimation and Valuation	3

### B.E. (HONS) Civil Engineering Degree Courses in the Curriculum 2022

S.No	Regulation	Course Code & Name of the Course	Credits
1.	2022	22CE5203 Elementary Theory of Elasticity and Introduction to Plasticity	3
2.	2022	22CE6202 Industrial Structures	3
3.	2022	22CE6203 Pavement Construction and Management	3
4.	2022	22CE7203 Soil Dynamics and Machine Foundations	3
5.	2022	22CE7204 Biological Treatment of Wastewater	3
6.	2022	22CE8201 Advanced Remote Sensing Techniques	3

# General Recommendations:

S. No	Title of the course viewed by experts	Experts suggestion and comments	Action Taken	Report
1.	Basic Building Services	New course may be introduced in Third semester	Suggestion passed on the standing committee	Suggestion Approved
2.	Mechanics of Fluids	To be converted as Theory with Lab Component	Suggestion passed on the standing committee	Suggestion Approved
3.	Applied Hydraulics and Hydraulic Machinery	To be converted as Theory with Lab Component	Suggestion passed on the standing committee	Suggestion Approved
4.	Fluid Mechanics and Machinery Lab	To be removed	Suggestion passed on the standing committee	Suggestion Approved
5.	Soil Mechanics	To be converted as Theory with Lab Component	Suggestion passed on the standing committee	Suggestion Approved
6.	Computer Aided Analysis of Structures	New course may be introduced in seventh semester	Suggestion passed on the standing committee	Suggestion Approved
7.	Survey Camp and Internship	Survey Camp with 1 credit in the fourth semester & Internship in seventh semester	Suggestion passed on the standing committee	Suggestion Approved

S. No	Suggestions / Comments given by the Members for 2022 Regulation	Action Taken	Report
1.	University Nominee and subject experts suggested to plan field visits, Industry training, guest lecturers (Industry and academicians) and so on to the students for the upcoming Academic Year 2022-2023.	Suggestion passed on the standing committee	Suggestion Approved
2.	Suggested to create opportunities for the students to participate in many online certification courses, project contest.	Suggestion passed on the standing committee	Suggestion Approved

  
Chairman of BoS

  
Dean Academics



## HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institution

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai  
Accredited with 'A' Grade by NAAC, Accredited by NBA (ECE, MECH, EEE, IT & CSE)  
Coimbatore - 641 032



### DEPARTMENT OF CIVIL ENGINEERING

Date: 20.02.2023

#### BOARD OF STUDIES MEETING

Name of the Department: Civil Engineering

The Tenth Board of Studies meeting of civil engineering to discuss the curriculum & syllabus of Regulation 2019 & 2022 for the academic year 2022-2023 (Even Semester) was conducted on 17.02.2023 at 02.30 pm in the ONLINE mode through Google Meet.

(Meeting Link: <https://meet.google.com/oe-sc-yk-pvs>)

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr. K. Akil	Professor and Head, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	Chairman
2	Dr. G. Arun Kumar	Associate Professor (CAS), Government College of Engineering, Salem.	University Nominee
3	Dr. S. Shantha Kumar	Professor, School of Civil Engineering, Vellore Institute of Technology (VIT), Vellore.	Academic Expert
4	Dr. V. M. Shanthi	Principal, Government College of Engineering, Srirangam.	Academic Expert
5	Dr. J. Jegan	Professor, Department of Civil Engineering, Anna University, University College of Engineering, Ramanathapuram.	Academic Expert
6	Mr. J. Prem Kumar	Principal Consultant, M/s Infinustech, Coimbatore.	Special invitee
7	Dr. A. Sudhakar	CEO - Dimensions Structural Designs, #57, KrishnasamyMudhaliar Street, Brooke Bond Road, R S Puram, Coimbatore	Industry Member

8	<b>Dr. S. Deepa Shri</b>	Professor Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Member</b>
9	<b>Mr. R. Senthil Kumar</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
10	<b>Mr. A. Alex Livingston Raja</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
11	<b>Ms. K. Saraswathi</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
12	<b>Ms. V. Suresh</b>	Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology.	<b>Member</b>
13	<b>Mr. B. Thamizhinian</b>	Research Scholar, Indian Institute of Technology, Roorkee, Haridwar, Uttarakhand	<b>Alumni Member</b>
14	<b>Ms. R. Sakthi Shree</b>	IV Year Student Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Student Member</b>
15	<b>Ms. K. Nivetha</b>	III Year Student Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Student Member</b>
16	<b>Mr. K. Arun</b>	II Year Student Department of Civil Engineering, Hindusthan College of Engineering and Technology	<b>Student Member</b>

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the ninth Board of Studies meeting.
- Chairman disseminated Vision and Mission of the Institution and Department, Programme Educational Objectives (PEOs), Programme Specific Outcomes (PSOs), Programme Outcomes (POs)
- Chairman also presented the new regulation 2022 and the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 23.08.2022 was approved.

**For Regulations 2022 :**

- In Semester II – Two Employability Enhancement Subjects (Design Thinking & Soft Skills and Aptitude I) added within the curriculum as Employability Enhancement Courses with two and one credit respectively.
- In Semester II – Two Subjects ( தமிழ்மரபு / Essence of Indian Traditional Knowledge & NCC/NSS/YRC/Sports/Clubs Enrolment ) added within the curriculum as Mandatory Courses with Zero Credit .
- NCC/NSS/YRC/Sports/Clubs Enrolment-All the students shall enroll in any one of the personality and character development programmes and undergo training for about 80 hours.
- In Semester III – Theory with Practical Component courses syllabus
- Chairman conveyed that the suggestions given by the Board of Studies members shall be incorporated with the approval of standing committee.
- The curriculum and syllabus of Regulation 2022 for the I & II semester subjects that were passed by the Science and Humanities, Computer Science and Engineering, Mechanical Engineering and Electrical and Electronics Engineering were permitted by board to move on to Academic Council by the BoS members of Civil Engineering for the students admitted during the academic year 2022 - 2023 and onwards
- The curriculum of R2022 for the I to VIII semester subjects of B.E Civil Engineering program for the students admitted during the academic year 2022 - 2023 and onwards was permitted to move on to Academic Council.

**For Regulations 2019:**

- Changes have been done as per the current needs in curriculum and syllabus of Regulation 2019.
- Based on Regulation 2019, the revised curriculum and syllabi for VI and VIII semesters of R2019 were reviewed for the B.E Civil Engineering program for the students admitted in the academic year 2019 - 2020 & 2020 - 2021 and onwards and permitted to move on to the Academic Council.

**Value added Courses:**

- Building Information Modeling using Autodesk AutoCAD 3D & Modeling, Analysis and Design of Elements using Bentley STAAD.Pro to be introduced as value added courses for IV Semester & VI Semester respectively.

**Following are the Comments put forth by the Experts:**

S.No	Title of the course viewed by experts	Experts suggestion and comments
1.	22CE2101 Engineering Mechanics	The title of the course may be changed to Engineering Mechanics and solid mechanics with the change of Unit 4 & Unit 5.
2.	22MC1091 அறிவியல் தமிழ்	These courses may be taught by Tamil Professors
	22MC2091 தமிழர்மரபு	
3	22HE5071 Foreign Language	For Civil Engineering students, Hindi may be a foreign language.
4.	22CE3202 Construction Materials and Techniques	Fire & Safety topics can be added
5.	22CE8901 Project Work / Granted Patent	The experts are appreciated for including the granted patent in R2022
6.	Open Elective Courses	Waste Management, Disaster Management and Fire & Safety subjects may be added.
7.	<b>Honors Degree Course.</b>	Number of courses should be increased.
8.	<b>Minor Degree Courses.</b>	In this course, the Design Part can be removed.
	22CE7231 Structural Analysis and Design	(or) New course Mechanics of solid can be replace with Structural Analysis and Design

- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks by the Chairman at 4.30 p.m.

  
**Chairman**  
**(Board of Studies)**



Date: 21.02.2023

### **ACTION TAKEN REPORT ON BOS**

Name of the Department: **CIVIL ENGINEERING**

The Tenth Board of Studies meeting of Regulation 2019 & 2022 for the academic year 2022 - 2023 was conducted on 17.02.2023 at 02.30 p.m. at ONLINE mode thorough Google Meet. (Meeting Link: <https://meet.google.com/lookup/d54asfwigr>). This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	22CE2101 Engineering Mechanics	Suggestion passed on the standing committee	40%
2.	22MC1091 அறிவியல் தமிழ்	Suggestion passed on the standing committee	-
3.	22MC2091 தமிழர் மரபு	Suggestion passed on the standing committee	-
4.	22CE3202 Construction Materials and Techniques	Suggestion passed on the standing committee	2 %

**(ii) New courses Introduced:**

B.E. (Minor) Civil Engineering Degree Courses in the Curriculum 2022

S.No.	Course Code	Vertical I	Vertical II
1	21CE5231	Principles of Surveying	Sustainable infrastructure Development
2	21CE6231	Construction Technology	Sustainable Agriculture and Environmental Management
3	21CE6232	Soil and Foundations	Sustainable Bio Materials
4	21CE7231	Structural Analysis and Design	Materials for Energy Sustainability
5	21CE7232	Water and Wastewater Treatment	Green Technology
6	21CE8231	Quantity Estimation and Valuation	Environmental Quality Monitoring and Analysis
7		Transportation Engineering	Integrated Energy Planning for Sustainable Development

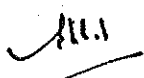
S.No	Regulation	Course Code & Name of the Course	Credits
1.	2019	21CE5203 Elementary Theory of Elasticity and Introduction to Plasticity	3
2.	2019	21CE6202 Industrial Structures	3
3.	2019	21CE6203 Pavement Construction and Management	3
4.	2019	21CE7203 Soil Dynamics and Machine Foundations	3
5.	2019	21CE7204 Biological Treatment of Wastewater	3
6.	2019	21CE8201 Advanced Remote Sensing Techniques	3

**(iii) General Recommendations:**

S.No.	Suggestion given by Bos Experts	Action taken
1	Update the references with the latest edition	Suggestion incorporated

- Chairman conveyed that the suggestions given by the Board of Studies members shall be incorporated with the approval of standing committee.

The meeting ended with thanks by the Chairman at 4.30 p.m.

  
**CHAIRMAN**  
 BoS / Civil

**Academic Year: 2022-2023**

**9th Board of Studies Meeting Minutes**

The meeting of 9th Board of Studies in the Department of Mechanical Engineering Undergraduate programme for the academic year 2022-23 was conducted on 23.08.2022 at 02.30 a.m in Online Mode through Google Meet. (Meeting Link: <https://meet.google.com/ddc-ecxh-szt>)

The following members were present:

S.No.	Name of the Expert	Nomination	Remarks
1	<b>Dr. K. Siva</b> Professor and Head, Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Chairman	Present
2	<b>Dr. M. Sakthivel</b> Associate Professor, Department of Mechanical Engineering, Anna University, Regional Campus, Coimbatore.	Anna University Nominee	Present
3	<b>Dr.P.K. Palani</b> Professor of Mechanical Engineering, Vice Principal & Controller of Examinations, Government College of Technology, Coimbatore- 641 013.	Academic Expert	Present
4	<b>Dr. Anbuudayasankar S. P</b> Associate Professor, Department of Mechanical Engineering, Amrita Vishwa Vidyapeetham, Coimbatore.	Academic Expert	Present
5	<b>Dr. VS Saravanan</b> Vice President at Indoshell Cast private limited Coimbatore.	Industry Member	Present
6	<b>Dr. M.S. Bobji</b> Professor Department of Mechanical Engineering, Indian Institute of Science, Bangalore.	Members from QS Rated Institutions	Absent
7	<b>Dr. S. Sekar</b> Associate Professor Mechanical Engineering Department, Hindusthan Institute of Technology	Members from Sister Concern – HiTECH	Present
8	<b>Dr. M. Mohanraj</b> Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present
9	<b>Dr. C.Nithyanandam</b> Associate Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present

10	<b>Dr. V. Senthilmurugan</b> Associate Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present
11	<b>Dr. Y. Rasmathew</b> Associate Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present
12	<b>Mr. M. Vigneshwar,</b> Proprietor Pie Bags Private Limited, Madurai.	Alumnus	Present
13	<b>Mr. N. Subramonia Pillai,</b> Deputy General Manager, Liquid Rocket Engine Test Facility Instrumentation, ISRO Propulsion Complex, Mahendragiri, Tirunelveli.	Parent	Present
14	<b>Arun Rathnavel.C</b> <b>19-23 Batch Student</b> Mechanical Engineering Department, Hindusthan College of Engineering and Technology	19-23 Batch Student	Present
15	<b>Rono George Roy</b> <b>20-24 Batch Student</b> Mechanical Engineering Department, Hindusthan College of Engineering and Technology	20-24 Batch Student	Present

The chairman of the BOS, welcomed all the dignitaries for the meeting. He introduced the BoS members. Also, he has given an outline of the institution and department along with the salient features of the Curriculum and Syllabi.

During the presentation he emphasized the importance of employability enhancement courses, life skill, soft skill, design thinking and IPR related subjects.

Further, the following points are discussed

- The Chairman –BoS (Dr.K.Siva) welcomed all the members for the 9th Board of Studies meeting. Also chairman welcomed the new internal members in the BoS.
- The Chaiman, BoS elaborated the Regulations 2022 Curriculum scheme to the members also he explained the new inclusion categories in the curriculum like Professional elective verticals, Minor Degree , Honours degree , SEC, AEC etc., with internal mark weightage system.

**Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- **Dr. M. Sakthivel** – Member from QS Rated Institution, appreciated the Curriculum scheme of 2022 regulations and accepted the R2019 subject revision.
- **Dr.P.K.Palani** – Subject Expert suggested that, in the subject“22ME1101 – Engineering Drawing (Sem-I) / Engineering Graphics” (Sem-II) Suggested changes in Course Objectives and Course Outcomes.
- **Dr. VS Saravanan** Subject Expert suggested that, in the subject“22ME2101 – Engineering Mechanics ”(Sem-II) member recommended to add Types of Beams in unit II.
- The Chairman, BoS and all members accepted to incorporate the above said modification.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of I and II semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.

Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 04.30 A.M.

  
**Chairman (BoS)**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi (R2019)

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



Date: 23.08.2022

**Action Taken Report**

The meeting of the 9<sup>th</sup> Board of Studies for the Department of Mechanical Engineering Undergraduate Programme was conducted on 23<sup>rd</sup> August 2022 at 02.30 a.m. in Online Mode (Google Meet Link : <https://meet.google.com/ddc-ecxh-szt>).

**Syllabus related Recommendations:**

S. No	Course Code & Course Name	Suggestions given by BoS experts	Action taken
1.	22ME1101 - Engineering Drawing (Non Circuit Branches) / Engineering Graphics (Circuit Branches)	Suggested changes in Course Objectives and Course Outcomes.	Suggestion passed and to be incorporated in the forthcoming Odd semester of Academic year 2022-23.
2.	Engineering Mechanics	Add Types of Beams in unit II.	Suggestion passed and to be incorporated in the forthcoming Odd semester of Academic year 2022-23.

**General Recommendations:**

S.No.	Course Code & Course Name	Suggestion given in the BoS experts	Action taken
1.	22ME1101 - Engineering Drawing (Non Circuit Branches) / Engineering Graphics (Circuit Branches)	Suggested changes in Course Objectives and Course Outcomes.	Suggestion Approved
2.	22ME2101 - Engineering Mechanics	Add Types of Beams in unit II.	Suggestion Approved

S. No	Course Code & Course Name	Suggestions given by BoS experts	Remarks	Percentage of Syllabus Revision
1.	22ME1101 - Engineering Drawing (Non Circuit Branches) / Engineering Graphics (Circuit Branches)	Suggested changes in Course Objectives and Course Outcomes.	Suggestion Approved	-
2.	22ME2101 - Engineering Mechanics	Add Types of Beams in unit II.	Suggestion Approved	20%

CHAIRMAN  
BoS/MECH



Date: 23.08.2022

**Action Taken Report on 9<sup>th</sup> BoS**

The meeting of the 9<sup>th</sup> Board of Studies for the Department of Mechanical Engineering Undergraduate programme was conducted on 23.08.2022 at 02.30 a.m in Online Mode through Google Meet. (Meeting Link: <https://meet.google.com/ddc-ecxh-szt>)

**(i) Syllabus Revision:**

S. No	Course Code & Course Name	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	22ME2101 - Engineering Mechanics	Add Types of Beams in unit II.	Suggestion Approved	20%

**(ii) Courses Introduced:**

S.No.	Regulation	Course Code	Course Name	Credits
1	2022	22MA1101	Matrices and Calculus	4
2	2022	22HE1151	English for Engineers	3
3	2022	22PH1151	Physics for Non Circuit Engineering	3
4	2022	22IT1151	Python Programming and practices	3
5	2022	22ME1101	Engineering Drawing	3
6	2022	22HE1071	Universal Human Values –II	2
7	2022	22HE1072	Entrepreneurship & Innovation	1
8	2022	22MC1091/ 22MC1092	அறிவியல்தமிழ்/ Indian Constitution	0
9	2022	22MA2101	Complex Analysis and Differential Equations	4
10	2022	22CY2101	Environmental Studies	2
11	2022	22PH2101	Basics of Material Science	2
12	2022	22ME2101	Engineering Mechanics	3
13	2022	22HE2151	Effective Technical Communication	3
14	2022	22CY2152	Applied Chemistry	3
15	2022	22ME2001	Engineering Practices	2
16	2022	22HE2071	Design Thinking	2
17	2022	22HE2072	Soft Skills -1	1
18	2022	22MC2093	NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	0
19	2022	22MA3105	Fourier Series and Transforms	4
20	2022	22ME3201	Engineering Thermodynamics	3
21	2022	22ME3202	Engineering Materials and Metallurgy	3

S.No.	Regulation	Course Code	Course Name	Credits
23	2022	22ME3204	Manufacturing Technology-I	3
24	2022	22ME3251	Fluid Mechanics and Machinery	4
25	2022	22ME3001	Manufacturing Technology Laboratory-I	2
26	2022	22ME3002	Computer Aided Modeling Lab	2
27	2022	22HE3071	Soft Skills -2	1
28	2022	22HE4101	IPR and Start-ups	3
29	2022	22ME4201	Kinematics of Machinery	3
30	2022	22ME4202	Hydraulic and Pneumatic Systems	3
31	2022	22ME4203	Manufacturing Technology – II	3
32	2022	22ME4204	Thermal Engineering	3
33	2022	22ME4251	Strength of Materials	3
34	2022	22ME4001	Manufacturing Technology Laboratory-II	2
35	2022	22ME4002	Thermal Engineering Lab	2
36	2022	22ME4003	Mini Project	1
37	2022	22HE4071	Soft Skills -3	1
38	2022	22ME5201	Automobile Engineering	3
39	2022	22ME5202	Internet of Things for Mechanical Engineers	2
40	2022	22MT53XX	Professional Elective-1	3
41	2022	22MT53XX	Professional Elective-2	3
42	2022	22MT53XX	Professional Elective-3	3
43	2022	22ME5251	Dynamics of Machines	3
44	2022	22ME5001	Heat Transfer Lab	2
45	2022	22ME5072	Machine Drawing	2
46	2022	22HE5071	Soft Skills -4/Foreign languages	1
47	2022	22HE6101	Professional Ethics	3
48	2022	22ME6201	Principles of Management	2
49	2022	22MT63XX	Professional Elective-4	3
50	2022	22MT63XX	Professional Elective-5	3
51	2022	22XX64XX	Open Elective – 1*	3
52	2022	22XX64XX	Open Elective – 2*	3
53	2022	22ME6251	Metrology and Quality control	2
54	2022	22ME6001	CAD/CAM Lab	3
55	2022	22HE6071	Soft Skills - 5	2
56	2022	22ME7201	Engineering Economics and Finance Management	3
57	2022	22ME7202	Artificial Intelligence for Mechanical Engineering	3
58	2022	22MT73XX	Professional Elective-6	3
59	2022	22XX74XX	Open Elective – 3*	3
60	2022	22XX74XX	Open Elective – 4*	3
61	2022	22ME7251	Finite Element Analysis	3
62	2022	22ME7701	Internship	2
63	2022	22ME8901	Project Work/Granted Patent	10
64	2022	22AI6401	Artificial Intelligence and Machine Learning Fundamentals	3
65	2022	22CS6401	Blockchain Technology	3
66	2022	22EC6401	Cyber security	3
67	2022	22EC6402	IoT Concepts and Applications	3
68	2022	22IT6401	Data Science and Analytics	3
69	2022	22BM6401	Augmented and Virtual Reality	3

S.No.	Regulation	Course Code	Course Name	Credits
70	2022	22AE6401	Space Science	3
71	2022	22MT6401	Introduction to Industrial Engineering	3
72	2022	22MT6402	Industrial Safety and Environment	3
73	2022	22CE6401	Climate Change and its Impact	3
74	2022	22CE6402	Environment and Social Impact Assessment	3
75	2022	22ME6401	Renewable Energy System	3
76	2022	22ME6402	Additive Manufacturing systems	3
77	2022	22EI6401	Introduction to Industrial Instrumentation and Control	3
78	2022	22EI6402	Graphical Programming using Virtual Instrumentation	3
79	2022	22AU6401	Fundamentals of Automobile Engineering	3
80	2022	22AU6402	Automotive Vehicle Safety	3
81	2022	22EE6401	Digital Marketing	3
82	2022	22EE6402	Research Methodology	3
83	2022	22FT6401	Traditional Foods	3
84	2022	22AG6401	Urban Agriculture and Organic Farming	3
85	2022	22CH6401	Biomass and Biorefinery	3
86	2022	22ME7402	Hybrid and Electric Vehicle Technology	3
87	2022	22MT7401	Project Management (Must in the list)	3
88	2022	22ME7401	Total Quality Management (Must in the list)	3
89	2022	22LS7401	General studies for competitive examinations	3
90	2022	22LS7402	Human Rights, Women Rights and Gender equity	3
91	2022	22LS7403	Indian ethos and Human values	3
92	2022	22LS7404	Financial independence and management	3
93	2022	22LS7405	Yoga for Human Excellence	3
94	2022	22LS7406	Democracy and Good Governance	3
95	2022	22LS7407	NCC Level - II	3
96	2022	22ME3231	Basic Mechanical Engineering	3
97	2022	22ME5301	Design of Machine Elements	3
98	2022	22ME5302	Heat and Mass Transfer	3
99	2022	22ME5303	Additive Manufacturing systems	3
100	2022	22ME6301	Design of Transmission systems	3
101	2022	22ME6302	CAD/CAM	3
102	2022	22ME7301	Entrepreneurship Development and Business Concepts	3
103	2022	22ME5304	Automotive Materials, Components, Design & Testing	3
104	2022	22ME5305	Conventional and Futuristic Vehicle Technology	3
105	2022	22ME5306	Renewable Powered Off Highway Vehicles and Emission Control Technology	3
106	2022	22ME6303	Vehicle Health Monitoring, Maintenance and Safety	3
107	2022	22ME6304	CAE and CFD Approach in Future Mobility	3
108	2022	22ME7302	Thermal Management of Batteries and Fuel Cells	3
109	2022	22ME5307	Value Engineering	3
110	2022	22ME5308	Quality and Reliability Engineering	3

S.No.	Regulation	Course Code	Course Name	Credits
111	2022	22ME5309	Production and Operations Management	3
112	2022	22ME6305	Ergonomics in Design	3
113	2022	22ME6306	New Product Development	3
114	2022	22ME7303	Product Life Cycle Management	3
115	2022	22ME5310	Sensors and Instrumentation	3
116	2022	22ME5311	Electrical Drives and Actuators	3
117	2022	22ME5312	Embedded Systems and Programming	3
118	2022	22ME6307	Robotics	3
119	2022	22ME6308	Smart Mobility and Intelligent Vehicles	3
120	2022	22ME7304	Haptics and Immersive Technologies	3
121	2022	22ME5313	Digital Manufacturing and IoT	3
122	2022	22ME5314	Lean Manufacturing	3
123	2022	22ME5315	Green Manufacturing Design and Practices	3
124	2022	22ME6309	Environment Sustainability and Impact Assessment	3
125	2022	22ME6310	Energy Saving Machinery and Components	3
126	2022	22ME7305	Green Supply Chain Management	3
127	2022	22ME5316	Automation in Manufacturing	3
128	2022	22ME5317	Warehousing Automation	3
129	2022	22ME5318	Material Handling Equipment, Repair and Maintenance	3
130	2022	22ME6311	Container Logistics	3
131	2022	22ME6312	Robotics in Logistics	3
132	2022	22ME7306	Data Science	3
133	2022	22ME5231	Sem 5: Computer Aided Design	3
134	2022	22ME6231	Sem 6: Manufacturing Processes	3
135	2022	22ME6232	Sem6: Fundamental of Thermodynamics	3
136	2022	22ME7231	Sem 7: Design of Machine Elements	3
137	2022	22ME7232	Sem 7: Computer Integrated Manufacturing	3
138	2022	22ME8231	Sem 8: Basics of Heat Transfer	3
139	2022	22MB5231	Financial Management	3
140	2022	22MB6231	Fundamentals of Investment	3
141	2022	22MB6232	Banking, Financial Services and Insurance	3
142	2022	22MB7231	Introduction to Blockchain and its Applications	3
143	2022	22MB7232	Fintech Personal Finance and Payments	3
144	2022	22MB8231	Introduction to Fintech	3
145	2022	22MB5232	Foundations of Entrepreneurship	3
146	2022	22MB6233	Team Building & Leadership Management for Business	3
147	2022	22MB6234	Creativity & Innovation in Entrepreneurship	3
148	2022	22MB7233	Principles of Marketing Management For Business	3
149	2022	22MB72334	Human Resource Management for Entrepreneurs	3
150	2022	22MB8232	Financing New Business Ventures	3
151	2022	22CE5232	Sustainable infrastructure Development	3
152	2022	22AG6233	Sustainable Agriculture and Environmental Management	3
153	2022	22BM6233	Sustainable Bio Materials	3
154	2022	22ME7233	Materials for Energy Sustainability	3
155	2022	22CE7233	Green Technology	3

156	2022	22CE8232	Environmental Quality Monitoring and Analysis	3
157	2022	22ME5203	Sem 5: New Product Development	3
158	2022	22ME6203	Sem 6: Ergonomics in Design	3
159	2022	22ME6204	Sem 6: Advances in Composite Materials	3
160	2022	22ME7203	Sem 7: Logistics and Supply Chain Management	3
161	2022	22ME7204	Sem 7: EV Technologies	3
162	2022	22ME8201	Sem 8: Heating , Ventilation and Air Conditioning Systems	3

  
 CHAIRMAN  
 BoS/MECH



# Hindusthan College of Engineering and Technology

(An Autonomous Institution, Affiliated to Anna University, Chennai  
Approved by AICTE, New Delhi & Accredited by NAAC with 'A' Grade)  
Valley Campus, Pollachi Highways, Coimbatore, Tamilnadu.



**Academic Year: 2022-2023**

## 10th Board of Studies Meeting Minutes

The meeting of 10th Board of Studies in the Department of Mechanical Engineering Undergraduate programme for the academic year 2022-23 was conducted on 22.02.2023 at 02.30 a.m in Online Mode through Google Meet.  
(Meeting Link: <https://meet.google.com/ufw-uxjt-njj>)

The following members were present:

S.No.	Name of the Expert	Nomination	Remarks
1	<b>Dr. K. Siva</b> Professor and Head, Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Chairman	Present
2	<b>Dr. M. Sakthivel</b> Associate Professor, Department of Mechanical Engineering, Anna University, Regional Campus, Coimbatore.	Anna University Nominee	Absent
3	<b>Dr.P.K. Palani</b> Professor of Mechanical Engineering, Vice Principal & Controller of Examinations, Government College of Technology, Coimbatore- 641 013.	Academic Expert	Absent
4	<b>Dr. Anbuudayasankar S. P</b> Associate Professor, Department of Mechanical Engineering, Amrita Vishwa Vidyapeetham, Coimbatore.	Academic Expert	Present
5	<b>Dr. VS Saravanan</b> Vice President at Indoshell Cast private limited Coimbatore.	Industry Member	Present
6	<b>Dr. M.S. Bobji</b> Professor Department of Mechanical Engineering, Indian Institute of Science, Bangalore.	Members from QS Rated Institutions	Absent
7	<b>Dr. S. Sekar</b> Associate Professor Mechanical Engineering Department, Hindusthan Institute of Technology	Members from Sister Concern – HITECH	Present
8	<b>Dr. M. Mohanraj</b> Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present
9	<b>Dr. C.Nithyanandam</b> Associate Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present

10	<b>Dr. V. Senthilmurugan</b> Associate Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present
11	<b>Dr. Y. Rasmathew</b> Associate Professor Mechanical Engineering Department, Hindusthan College of Engineering and Technology	Member	Present
12	<b>Mr. M. Vigneshwar,</b> Proprietor Pie Bags Private Limited, Madurai.	Alumnus	Present
13	<b>Mr. N. Subramonia Pillai,</b> Deputy General Manager, Liquid Rocket Engine Test Facility Instrumentation, ISRO Propulsion Complex, Mahendragiri, Tirunelveli.	Parent	Present
14	<b>Arun Rathnavel.C</b> <b>19-23 Batch Student</b> Mechanical Engineering Department, Hindusthan College of Engineering and Technology	19-23 Batch Student	Present
15	<b>Rono George Roy</b> <b>20-24 Batch Student</b> Mechanical Engineering Department, Hindusthan College of Engineering and Technology	20-24 Batch Student	Present

The chairman of the BOS, welcomed all the dignitaries for the meeting. He introduced the BoS members. Also, he has given an outline of the institution and department along with the salient features of the Curriculum and Syllabi.

During the presentation he emphasized the importance of employability enhancement courses, life skill, soft skill, design thinking and IPR related subjects.

Further, the following points are discussed

- The Chairman –BoS (Dr.K.Siva) welcomed all the members for the 10th Board of Studies meeting. Also chairman welcomed the new internal members in the BoS.
- The Chaiman, BoS elaborated the Regulations 2022 Curriculum scheme to the members also he explained the new inclusion categories in the curriculum like Professional elective verticals, Minor Degree , Honours degree , SEC, AEC etc., with internal mark weightage system.

#### **Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- **Dr. Anbuudayasankar S. P–** Academic Expert appreciated the Curriculum scheme of 2022 regulations and accepted the R2019 subject revision.
- **Dr. Anbuudayasankar S. P–** Academic Expert suggested to introduce the topic in 19ME8183 Logistics and Supply Chain Management “IOT Can be included, Loading and unloading time” topic can be added



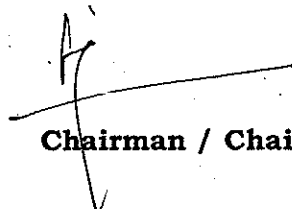
- **Dr. VS Saravanan**– Industry Member suggested to introduce the topic in 19ME8201 Engineering Economics and Cost Estimation “Activity based costing can be considered instead of Marginal Cost” topic can be added
- **Dr. VS Saravanan**– Industry Member suggested to introduce the topic in 21ME4201 Manufacturing Technology – II “Laser cutting and plasma cutting topic can be included in Unit I. Burnishing topic can be added in Unit IV”
- **Dr. VS Saravanan**– Industry Member suggested to introduce the CAD/CAM course in Minor Degree Courses
- The Chairman, BoS and all members accepted to incorporate the above said modification.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of II semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.
- The Laboratory syllabi of III & IV semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed and permitted to move on Academic Council.

Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 04.30 A.M.

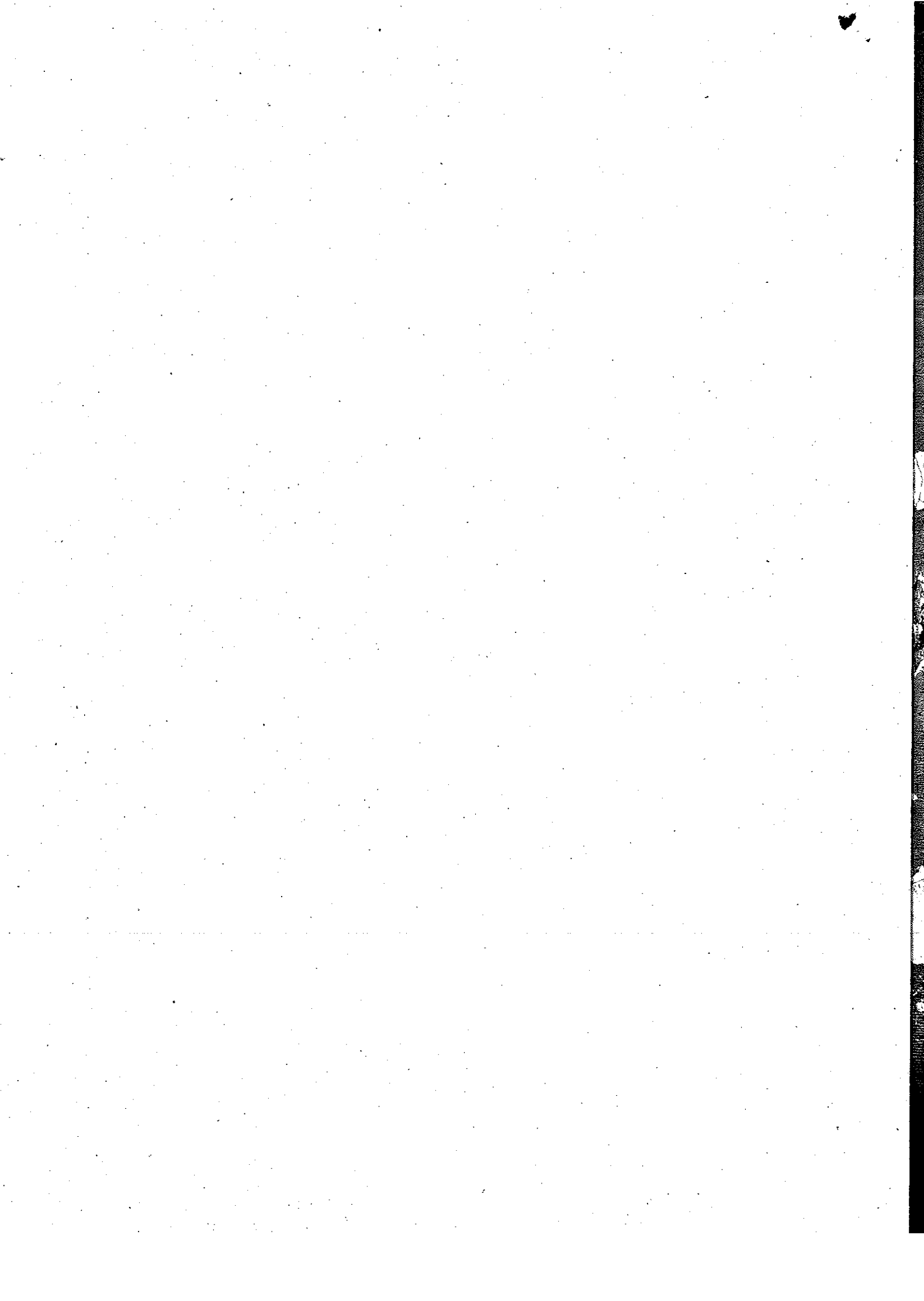
  
**Chairman / Chairperson (BoS)**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi (R2019)
4. Curriculum and Syllabi (R2022)

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



Date: 23.08.2022

**Action Taken Report**

The meeting of the 10<sup>th</sup> Board of Studies for the Department of Mechanical Engineering Undergraduate Programme was conducted on 22<sup>nd</sup> February 2023 at 02.30 a.m. in Online Mode (Google Meet Link : <https://meet.google.com/ufw-uxjt-njj>).

**Syllabus related Recommendations:**

S. No	Course Code & Course Name	Suggestions given by BoS experts	Action taken
1.	19ME6201 CAD/CAM	3D Scanning and 3D Printing Topic topics can be added. CIM Topic can be removed. NC Code generation can be discussed.	Suggestion passed and to be incorporated in the forthcoming Even semester of Academic year 2022-23.
2.	19ME8201 Engineering Economics and Cost Estimation	Activity based costing can be considered instead of Marginal Cost	
3	19ME8183 Logistics and Supply Chain Management	IOT Can be included, Loading and unloading time topic can be added	
4	21ME4201 Manufacturing Technology – II	Laser cutting and plasma cutting topic can be included in Unit I. Burnishing topic can be added in Unit IV	

  
Chairman BOS/Mech



# Hindusthan College of Engineering and Technology

(An Autonomous Institution, Affiliated to Anna University, Chennai  
Approved by AICTE, New Delhi & Accredited by NAAC with 'A' Grade)  
Valley Campus, Pollachi Highways, Coimbatore – 641 032

Date: 17.08.2022

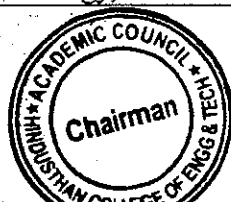
## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Mechatronics Engineering**

The Ninth Board of Studies meeting of Regulation 2019 & 2022 for the academic year 2022-23 was conducted on 17.08.2022 at 10.00 a.m. in the Video Conference Hall, Central Library.

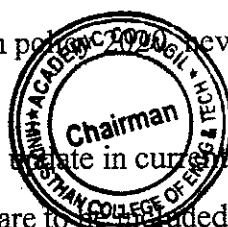
The following members were present:

S.No	Name of the Person	Department	Position
1	Dr. P.T.Saravanakumar	Professor & Head, Department of Mechatronics Engineering ,Hindusthan College of Engineering and Technology, Coimbatore	Chairman
2	Dr. M. Sakthivel	Associate Professor, Department of Mechanical Engineering, Anna University, Regional Campus Coimbatore.	University Nominee
3	Dr.M.Poongothai	Associate professor, Department of Electronics and communication Engineering, Coimbatore Institute of Technology, Coimbatore	Subject Expert (1)
4	Dr.S.Saravanan	Professor & Associate Dean – Autonomous Functioning, Department of Production Engineering, PSG College of Technology, Peelamedu, Coimbatore.	Subject Expert (2)
5	Dr.K.Selvaraj	Senior Member IEEE, Solution Architect at DXC Technology, Bangalore.	Representative from Industry
6	Dr.A.Arockia Rajan	Professor Solid Mechanics Division, Department of Applied Mechanics, Indian Institute of Technology Madras, Chennai – 600 036.	Member from QS Rated Institution
7	Dr.B.Paulchamy	Professor and Head, Department of Electronics and communication Engineering Hindusthan College of Technology, Coimbatore	Member from Sister Concern (HiTech)
8	Dr.R.Madhusudhanan	Associate Professor, Department of Mechatronics Engineering , Hindusthan College of Engineering and Technology, Coimbatore	Internal Member



9	Dr.T.Vandarkuzhali	Associate Professor, Department of Mechatronics Engineering , Hindusthan College of Engineering and Technology, Coimbatore	Internal Member
10	Dr.Pradeep Johnson	Associate Professor, Department of Mechatronics Engineering , Hindusthan College of Engineering and Technology, Coimbatore	Internal Member
11	Mr.S.PremAnand	Assistant Professor,Department of Mechatronics Engineering ,Hindusthan College of Engineering and Technology, Coimbatore	Internal Member
12	Mr.C.P.Jeyakishan	Chief Executive Engineer, MEG , Ganapathy, Coimbatore-641006	Alumni Member
13	Ms.A.Swetha	Third year Department of Mechatronics Engineering , Hindusthan College of Engineering and Technology, Coimbatore	Current Student Member

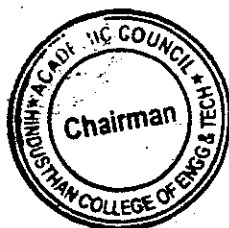
- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- The chairperson briefly explained the Salient features of Regulation 2019 & 2022 to all the BoS members
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- The Chairman also mentioned the revision of Regulation 2019 Syllabus which meets on higher order thinking levels based on the recommendations from stakeholder.
- Chairman also presented the Suggestions given by the Curriculum Development Cell meeting held on 20.01.2022, Ideation skills, Soft skills & Intellectual Property Rights (IPR) to be introduced in sixth semester. And also proposed to have a ICT Academy Learnathon course as value added Course in ODD semester and Nasscom, Future skills course in EVEN semester.
- The Chairman also mentioned the New Regulation 2022 for the upcoming year with consideration of changes in Continuous Internal Assessment marks as per the guidelines of Anna University.
- As per guidance of National education policy 2020, new curriculum for the new R2022 to be frame.
- New Era Technologies courses can be integrate in current curriculum of R2019.
- Employability Enhancement Courses are to be included in new curriculum



- As per guidance of Anna university, the continuous internal assessment will carry 40 marks while the End Semester University examination will carry 60 mark for the upcoming R2022.
- Vision & Mission of the department are discussed.
- Skill Enhancement courses are opted as a value added course in upcoming Odd/Even Semester
- Followed by, Chairman presented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 02.02.2022, was approved.

#### **Recommendations by BoS members (Subject Related)**

- Experts suggested, 3<sup>rd</sup> Semester - 21MT3201- Mechanics of solids-25% syllabus revision made with relevant topics. In Unit 1, Add the topic "Stress and Strain diagram for ferrous and non-ferrous materials". In Unit 3, And the topic "Theories of Failures". In Unit 4, Remove the topic "Macaulay's Method". In Unit 5 Remove the topic s applications and case studies, instead of that add "Lami's Equation for radial and hoop stress distribution".
- Experts suggested, 4th Semester - 21MT4203-Theory of Machines-20% syllabus revision made with relevant topics. In Unit 1, remove the topic "Acceleration diagram for simple mechanism". In Unit 2, remove the topic "Compound Epicyclic gear trains".
- Experts suggested, 4th Semester - 21MT4251-Sensors and Signal Conditioning- 20% syllabus revision made with relevant topics. In Experimental setups, Thermistor to be replace with "Thermocouple", Servo position control to be replace with "Load cell "and Voltage to Frequency convertor to be replace with Differential Amplifier".
- Experts suggested, 7<sup>th</sup> Semester-21MT7301-Mobile Robotics -50% syllabus revision made with relevant topics. In Professional elective III, Course "Mobile Robotics" to be replaced with "Mobile and Soft Robotics" for 2019,2020 & 2021 batches.
- Experts suggested, 8<sup>th</sup> Semester-21MT8181-In Professional elective IV, Course "Principles of Management" to be replaced with "Renewable Energy Resources" for 2019, 2020 & 2021 batches, 100% syllabus revision made with relevant topics.
- Constitution of Board Members are approved the suggestions given by our Curriculum Development Cell about the Ideation skills, Soft skills, Intellectual Property Rights (IPR) and Value Added Courses (Learnathon & Nasscom).\



### General Recommendations

1. University Nominee suggested to include a common sentence "The students will be able to" before course outcome for all subjects.
2. Chairman conveyed that; the Suggestions given by the Board of Studies members to be incorporated in R2019.
3. Based on R2019 Curriculum for I – VIII semesters of B.E, Mechatronics Engineering program for the students admitted in the academic year 2021-22 onwards and the same were presented and discussed.
4. Chairman conveyed about the Consideration of MOOC courses like NPTEL/Coursera / Edx etc as Additional credit courses so that students can get wide exposure on knowledge sharing.
5. The Chairman also mentioned the New Regulation 2022 for the upcoming year with consideration of changes in Continuous Internal Assessment marks as per the guidelines of Anna University. As per guidance of National education policy 2020, new curriculum for the new R2022 to be frame.

### **The following resolutions were made in the Board of Studies meeting:**

The syllabi of I and II semester of the UG Programmes for the students admitted during the academic year 2022-2023 and onwards was passed by S&H Board of studies and permitted to move on Academic Council.

Chairman conveyed that, suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the chair at 12.30 pm.

*P. S. S. S.*  
Chairman  
(Board of Studies)

**Chairman - BoS**  
**MCT - HiCET**

### Enclose:

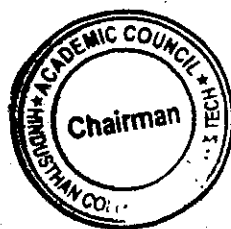
1. Previous BoS Minutes-ATR
2. Copy of Regulation 2016R
3. Curriculum and Syllabus

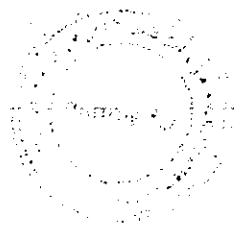




**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File





## Action Taken Report on BoS

The meeting of Ninth Board of Studies of Regulation 2019 for the Department of Mechatronics Engineering Undergraduate programme was conducted on 17.08.2022 at 11.30 am in the Video Conference Hall, Central Library.

### (i) Syllabus Revision:

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21MT3201- Mechanics of solids	Modified	25%
2.	21MT4203-Theory of Machines	Modified	20%
3.	21MT4251-Sensors and Signal Conditioning	Modified	20%
4.	21MT7301-Mobile Robotics	Modified	50%
5.	Professional elective IV -Renewable Energy Resources	Introduced	100%

Overall Percentage of syllabus revision made in the BoS: 50 %

### (ii) New courses Introduced:

S.No.	Regulation	Course code with name	Credits
1.	2019R	Renewable Energy Resources	3

### General Recommendations:

S.No.	Suggestion given in the BoS experts	Action taken
1	University Nominee suggested to include a common sentence "The students will be able to" before course outcome for all subjects.	Considered
2	Chairman conveyed that; the Suggestions given by the Board of Studies members to be incorporated in R2019.	Considered
3	Based on R2019 Curriculum for I – VIII semesters of B.E, Mechatronics Engineering programme the students admitted in the academic year 2021-22 onwards and the same were presented and	Incorporated

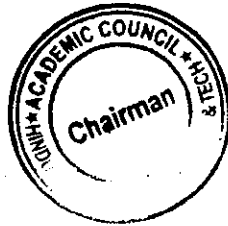
Chairman



	discussed.	
4	Chairman conveyed about the Consideration of MOOC courses like NPTEL/Coursera / Edx etc as Additional credit courses so that students can get wide exposure on knowledge sharing.	Incorporated
5	The Chairman also mentioned the New Regulation 2022 for the upcoming year with consideration of changes in Continuous Internal Assessment marks as per the guidelines of Anna University. As per guidance of National education policy 2020, new curriculum for the new R2022 to be frame.	Considered

*P. Suresh*  
**CHAIRMAN**  
**BoS/MCT**

**Chairman - BoS**  
**MCT - HiCET**



*[Signature]*  
**DEAN ACADEMICS**  
**Dean (Academics)**  
**HiCET**

3025  
MCB

TRANSITIONING UNIT  
MCB



UNIT COMMANDER  
MCB



# **Hindusthan College of Engineering and Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

## **DEPARTMENT OF MECHATRONICS ENGINEERING**

### **MINUTES OF BOARD OF STUDIES MEETING**

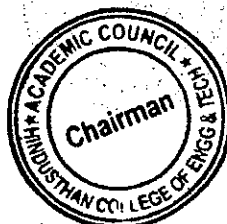
Name of the Department: **Mechatronics Engineering**

Date: **10.02.2023**

The Tenth Board of Studies meeting of regulation R2022 for the academic year 2022-2023 Even Semester was conducted on 10.02.2023 at 10.00a.m. in Simulation Lab, Hindusthan College of Engineering and Technology.

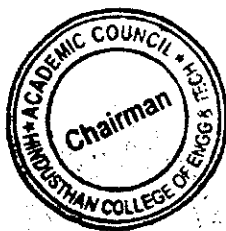
The following members were present:

S.No.	Name of the Member	Position
1.	Dr. P.T.Saravanakumar Professor & Head, Department of Mechatronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Chairman
2.	Dr. M. Sakthivel Associate Professor, Department of Mechanical Engineering, Anna University, Regional Campus Coimbatore.	University Nominee
3.	Dr.M.Poongothai Associate professor, Department of Electronics and communication Engineering, Coimbatore Institute of Technology, Coimbatore	Academic Expert
4.	Dr.S.Saravanan Professor & Associate Dean – Autonomous Functioning, Department of Production Engineering, PSG College of Technology, Coimbatore.	Academic Expert
5.	Dr.K.Selvaraj Senior Member IEEE, Solution Architect at DXC Technology, Bangalore.	Industry Expert
6.	Dr.A.Arockia Rajan Professor Solid Mechanics Division, Department of Applied Mechanics, Indian Institute of Technology Madras, Chennai – 600 036.	Member from QS Rated Institution
7.	Dr.B.Paulchamy Professor and Head, Department of Electronics and communication Engineering Hindusthan College of Technology, Coimbatore	Member from Sister Concern (HiTech)
8.	Dr.T.Vandarkuzhali Professor, Department of Mechatronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Internal Member



9.	Dr.R.Madhusudhanan Associate Professor, Department of Mechatronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Internal Member
10.	Dr.Pradeep Johnson Associate Professor, Department of Mechatronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Internal Member
11.	Mr.S.PremAnand Assistant Professor, Department of Mechatronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Internal Member
12.	Mr.C.P.Jeyakishan Chief Executive Engineer, MEG, Ganapathy, Coimbatore-641006	Alumni Member
13.	Ms.A.Swetha Third year Department of Mechatronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore	Student Member

- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- The chairperson briefly explained the Salient features of Regulation 2019& 2022 to all the BoS members
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- As per guidance of National education policy 2020, new curriculum for the new R2022 to be frame.
- New Era Technologies courses can be update in current curriculum of R2022.
- As per the direction of Curriculum Development Cell (CDC), B.Tech honor courses of single vertical can be reframed to three verticals for the R2022 & R2019 (Batch 2021-2025) and also we introduce for minor degrees for R2019 (Batch 2021-2025).
- Employability Enhancement Courses are to be included in new curriculum
- As per guidance of Anna university, the continuous internal assessment will carry 40 marks while the End Semester University examination will carry 60 marks for the upcoming R2022.
- Vision & Mission of the department are discussed.
- Skill Enhancement courses are opted as a value-added course in upcoming Odd/Even Semester





- Followed by, Chairman presented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 17.08.2022, was approved.

**The following are the recommendations put forth by the BoS members,**

1. For R2019 (Batch 2020-2024) "19MT8302-Industrial IOT" can be replaced with NPTEL Courses "Introduction to Industry 4.0 and Industrial Internet of Things" and This course is offered for the fast-track students of 6th semester during the academic year 2022-2023, under the regulation 2019 with amendments Clause 5.10 – Credit Transfer Course Category.
2. In 22MT3072, Home Automation Ability Enhancement Course, Experiment 8: "Speed control of a FAN with a temperature sensor" title to be changed as "Speed control of a FAN with an analog sensor"
3. In 22MT4002, CAD Laboratory, study of software packages can be added in experiment list

**General Recommendations:**

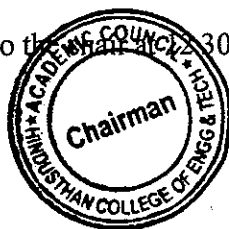
1. Chairman conveyed that; the Suggestions given by the Board of Studies members to be incorporated in R2022.
2. Chairman conveyed about the Consideration of MOOC courses like NPTEL/Coursera / Edx etc as Additional credit courses so that students can get wide exposure on knowledge sharing.
3. The Chairman also mentioned the New Regulation 2022 for the upcoming year with consideration of changes in Continuous Internal Assessment marks as per the guidelines of Anna University. As per guidance of National education policy 2020, new curriculum for the new R2022 to be frame.

**The following resolutions were made in the Board of Studies meeting,**

The syllabi of I and II semester of the UG Programmes for the students admitted during the academic year 2022-2023 and onwards was passed by S&H Board of studies and permitted to move on Academic Council.

Chairman conveyed that, suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chairman at 2:30 pm.



*P. Suman*  
Chairman

(Board of studies)

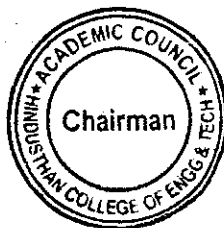
**Chairman - BoS**  
**MCT - HICET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File





# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date:13.02.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: Mechatronics Engineering

The meeting of Tenth board of studies of Regulation 2019& Regulation 2022 for the Department of Mechatronics Engineering, Under Graduate Programme was conducted on 10.02.2023 at 10.00 am, in Simulation Lab, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1.	NPTEL Courses "Introduction to Industry 4.0 and Industrial Internet of Things"	Incorporated	100%

Overall Percentage of revision made in the BoS: 50%

### (III) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1	R2022	22PH2102-Applied Mechanics	2
2	R2022	22MT2251-Fundamentals of Mechatronics	3
3	R2022	22MT3001-Industrial Motor Control Lab	2
4	R2022	22MT3002-Solid and Fluid Mechanics Lab	2
5	R2022	22MT3072-Home Automation	2
6	R2022	22MT4001-Processor and controller Laboratory	2
7	R2022	22MT4002-CAD Laboratory	2

### (IV) B Tech (Minor Degree)

S. No	Course Code with Name
1	22MT5231 -Basics of Mechatronics System
2	22MT6231- Sensors and Interfacing
3	22MT6232- Hydraulics and Pneumatics
4	22MT7231- PLC and SCADA
5	22MT7232- Industrial Robotics
6	22MT8231- Design of Mechatronics System
1	22MT5231- Basics of Mechatronics System
2	22MT6231- Sensors and Interfacing





**(V) Additional Courses for Minor Degree common to all branches**

<b>Vertical I</b> <b>Fintech and Block Chain</b>	<b>Vertical II</b> <b>Entrepreneurship</b>	<b>Vertical III</b> <b>Environment and Sustainability</b>
Financial Management	Foundations of Entrepreneurship	Sustainable infrastructure Development
Fundamentals of Investment	Team Building & Leadership Management for Business	Sustainable Agriculture and Environmental Management
Banking, Financial Services and Insurance	Creativity & Innovation in Entrepreneurship	Sustainable Bio Materials
Introduction to Blockchain and its Applications	Principles of Marketing Management for Business	Materials for Energy Sustainability
Fintech Personal Finance and Payments	Human Resource Management for Entrepreneurs	Green Technology
Introduction to Fintech	Financing New Business Ventures	Environmental Quality Monitoring and Analysis

**(VI) B Tech (HONS) Mechatronics Engineering**

<b>Vertical I</b> <b>Industrial Automation</b>	<b>Vertical II</b> <b>Medical Mechatronics</b>	<b>Vertical III</b> <b>Thermal engineering</b>
22MT5203 Concepts of Machines and Mechanisms	22MT5204 Robotics in Medicine	22MT5205 Thermal Engineering
22MT6202 Drives and Actuators for Automation	22MT6204 Brain Computer Interface and its Applications	22MT6206 Heat and Mass Transfer
22MT6203 Power Electronics	22MT6205 Digital Image Processing	22MT6207 Alternative Fuels for IC Engines
22MT7203 Advanced PLC	22MT7205 Radiological Equipment	22MT7207 Power Plant Engineering





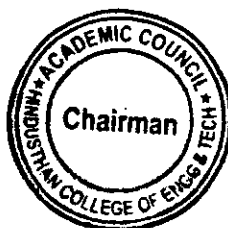
22MT7204 Distributed Control System	22MT7206 Biomaterials	22MT7208 Environmental Engineering and Pollution Control
22MT8201 HMI & SCADA	22MT8202 Bionics	22MT8203 Energy Management in Thermal System

**(VII). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	For R2019 (Batch 2020-2024) "19MT8302-Industrial IOT" can be replaced with NPTEL Courses "Introduction to Industry 4.0 and Industrial Internet of Things" and This course is offered for the fast-track students of 6th semester during the academic year 2022-2023, under the regulation 2019 with amendments Clause 5.10 – Credit Transfer Course Category.	Considered
2.	In 22MT3072, Home Automation Ability Enhancement Course, Experiment 8: "Speed control of a FAN with a temperature sensor" title to be changed as "Speed control of a FAN with an analog sensor"	Considered
3.	In 22MT4002, Processor and Controller Laboratory, few experiments can be replaced with the Arm Processor and Case studies of Data sheet of current trends controllers.	Considered
4.	In 22MT4002, CAD Laboratory, study of software packages can be added in experiment list	Considered

*P. S. Kumar*  
Chairman  
(Board of Studies)

**Chairman - BoS  
MCT - HiCET**



*[Signature]*  
Dean Academics

**Dean (Academics)  
HiCET**

SECRET  
U.S. DEPARTMENT OF AGRICULTURE  
(Chemical Division)



SECRET  
U.S. DEPARTMENT OF AGRICULTURE  
(Chemical Division)





# Hindusthan College of Engineering And Technology

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Coimbatore – 641 032

## DEPARTMENT OF AGRICULTURE ENGINEERING

### MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Agriculture Engineering**

Date: 29.08.2022

The Seventh Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 ODD Semester was conducted on 29.08.2022 at 2.30 p.m. in the Board Room (Virtual mode), Hindusthan College of Engineering and Technology.

Google Meet: <https://meet.google.com/gvq-uyfq-hqj>

The following members were present:

S.No.	Name of the Member	Position
1	Dr Sridhar N Associate Professor & Head, Department of Agriculture Engineering, HiCET.	Chairman
2	Dr.M.Krishnaveni Professor (Agrl. Engg), Centre for Water Resources Anna University, Chennai.	University Nominee
3	Mr. C.Mayilsamy Professor & Head Dept of Agrl. Engg, Karunya Institute of Technology and Sciences, Coimbatore.	Academic Expert
4	Dr.M. Singaravelu Professor Dept of Agrl. Engg SNS College of Engineering Coimbatore.	Academic Expert
5	Dr.Manickavasagan Annamalai Associate Professor, University of Guelph, Ontario, Canada	Academic Expert
6	Mr.C.V.Madeeswaran Managing Director, KSNM Marketing, BME Industrial Expert, SF NO 29/1B Onapalayam Coimbatore- 641 190.	Industry Expert
7	Er.Rangitha S Manager-Farm Operations Greenzy- Krishirishi Agrofarms LLP, Coimbatore.	Alumni

8	Mrs Chinju Saju Assistant Professor Department of Agriculture Engineering, HiCET.	Member
9	Mrs.Ramya K Assistant Professor Department of Agriculture Engineering, HiCET.	Member
10	Mr.Seerangurayar T Assistant Professor Department of Agriculture Engineering, HiCET.	Member
11	Mr.DineshKumar S Assistant Professor Department of Agriculture Engineering, HiCET.	Member
12	Ms.Meena S Assistant Professor Department of Agriculture Engineering, HiCET.	Member
13	Mr.Dhayalan V Assistant Professor Department of Agriculture Engineering, HiCET.	Member
14	Ms.Ramya N Assistant Professor Department of Agriculture Engineering, HiCET.	Member
15	Mr.Amaran V Assistant Professor Department of Agriculture Engineering, HiCET.	Member
16	Dr.Rajaravi C Associate Professor Department of Agriculture Engineering, HiCET.	Member
17	Mrs.K.GuruLakshimi -HSC Teacher – Thiruppur	Parents
18	Mrs.Leema jaya Rose House Wife	Parents
19	Sanjay M Department of Agriculture Engineering, HiCET.	Student Member
20	Vidhya S Department of Agriculture Engineering, HiCET.	Student Member

The university nominee Dr.M.Krishnaveni and all the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Seventh Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 14.02.2022. Members of the BoS approved the same.
- The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS

- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- Chairman explained about the integration of curriculum with RCPSDC (The Rubber, Chemical & Petrochemical Skill Development Council, under the aegis of National Skill Development Corporation (NSDC), GOI) under regulation 2019 for skill development and its importance to BoS members.
- Chairman indicated that two electives in the current curriculum related to RCPSDC for skill development and explained the value added courses.
- As recommended by DAC members, syllabus revision/updation under regulation 2019 (ODD SEM) in Theory, Theory with lab components and laboratory experiments for agriculture Engineers were discussed in the meeting.
- The curriculum and syllabus for the new courses under VII semester was presented by the Chairman and discussed.
- The Chairman discussed the scheme of curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards.

**The following are the recommendations put forth by the BoS members,**

#### **For the Regulations 2022 Curriculum**

1. Suggested to have six verticals for Agriculture Engineering" as Professional Elective course.
2. Suggested to include advances in agriculture and employability course in the curriculum.
3. Suggested to allow the students for internship in fourth semester onwards and evaluating their report in seventh semester.

#### **For the Regulations 2019 curriculum and Syllabus**

1. In "21AG3202 - FLUID MECHANICS AND HYDRAULICS" recommended 25% revisions and updates in Unit – II, III and V (For the Batch 2021 – 2025).
2. In "21AG3204- PRINCIPLES AND PRACTICES OF CROP PRODUCTION", 35 % syllabus revision has been recommended. (CROP SELECTION AND ESTABLISHMENT under Unit-II, cultivation practices for important groups of field crops under Unit – IV and more revision cum update in Unit-V) , For the Batch 2021 – 2025.
3. In "21AG3251 - UNIT OPERATIONS IN AGRICULTURAL PROCESSING" recommended to add three additional Practical experiment with 15 percent of revision " Unit-I ( Problems related to single and multiple effect evaporator ) Unit

-II ( Study on Jaw crusher for size reduction of maize ) Unit V (Problems related to Distillation ).

4. In "19AG5201- FARM MACHINERY AND EQUIPMENT" 30 % revision has been recommended for replacing the course content " Types of metering mechanism , cup feed mechanization , internal double run , fluted feed roller mechanism ", by "Devices for metering seeds" in Unit – III. Also recommended to update the course content in Unit-IV and V. (For the Batch 2020 – 2024 onwards)
5. In "19AG5203 - THEORY OF MACHINES" 15 % revision has been recommended for replacing the course content "In Unit I, II and V (For the Batch 2020 – 2024 onwards).
6. In "19AG5001 - OPERATION AND MAINTENANCE OF FARM MACHINERY LABORATORY" recommended to change two practical experiments ( To measure the internal components of Mould board Plough and disc plough with neat sketch , Performance and evaluation of paddy combine harvester) with 10 percent of revision.
7. The new courses introduced, (19AG7201) Agricultural Extension, Remote Sensing and Geographical Information System (19AG7202), Precision Farming and Protected Cultivation (19AG7251), Renewable Energy Laboratory (19AG7001), GIS Laboratory for Agricultural Engineers(19AG7002), Innovative Project (19AG7901) as Professional Core Courses and Post-Harvest Technology (19AG7301) Dairy Process Technology (19AG7302), Storage and Packaging Technology (19AG7303), Process Engineering of Fruits and Vegetables (19AG7304), Fat and Oil Processing (19AG7305), and Urban Agriculture and organic farming (19AG7401) and Quality analysis in rubber industry (19AG7402) as open Elective and Practicing PLC.Ardino for agricultural machinery Automation (19VAAG04) as additional Credit Courses are recommended.

#### **General Recommendations:**

1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.
2. Recommended to arrange more internship opportunities for the students.

**The following resolutions were made in the Board of Studies meeting,**

#### **For Regulations 2019:**

- The curriculum and syllabus for the VII semester was passed by the Agriculture Engineering board and permitted to move on Academic Council by the BoS members of Agriculture Engineering for the students admitted during the academic year 2019-2020 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the III,V semester Courses of B.E Agriculture Engineering program for the students

admitted during the academic year 2020-2021 and onwards was suggested to move on to Academic Council.

**For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.Tech Agricultural Engineering and the same were presented and discussed. It was suggested to move on to Academic Council.
- The syllabus for Semester – I under regulation 2022 passed by the Board of Science and Humanities, Mechanical Engineering are permitted to move on Academic Council by the members of Agricultural Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 4.30PM.

  
Chairman  
(Board of studies)

**Enclose:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 with amendments
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File





# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 02.09.2022

## ACTION TAKEN REPORT ON 7<sup>th</sup> BOS

Name of the Department: **Agriculture Engineering**

The meeting of seventh board of studies of Regulation 2019 and Regulation 2022 for the Department of **Agriculture Engineering** Under Graduate Programme was conducted on 29.08.2022 at 2.30 pm in the Board Room, Hindusthan College of Engineering and Technology.

Meeting Link:

### (I) Syllabus Revision for the Regulations 2019

S.No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21AG3202 - FLUID MECHANICS AND HYDRAULICS	Modified	25%
2.	21AG3204- PRINCIPLES AND PRACTICES OF CROP PRODUCTION	Modified	35%
3.	21AG3251 - UNIT OPERATIONS IN AGRICULTURAL PROCESSING	Included	15 %
4.	19AG5201-FARM MACHINERY AND EQUIPMENT	Included	30%
5.	19AG5203 - THEORY OF MACHINES	Modified	15%
6.	19AG5001 - OPERATION AND MAINTENANCE OF FARM MACHINERY LABORATORY	Incorporated	10%

Overall Percentage of revision made in the BoS : 20.35%

### (II) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1	2019	19AG7201-Agricultural Extension	3
2	2019	19AG7202-Remote Sensing and Geographical Information System	3
3	2019	19AG7251-Precision Farming and Protected Cultivation	4

4	2019	19AG7001-Renewable Energy Laboratory	1.5
5	2019	19AG7002-GIS Laboratory for Agricultural Engineers	1.5
6	2019	19AG7901-Innovative Project	3
7	2019	19AG7301-Post-Harvest Technology	3
8	2019	19AG7302-Dairy Process Technology	3
9	2019	19AG7303-Storage and Packaging Technology	3
10	2019	19AG7304-Process Engineering of Fruits and Vegetables	3
11	2019	19AG7305-Fat and Oil Processing	3
12	2019	19AG7401-Urban Agriculture and organic farming	3
13	2019	19AG7402-Quality analysis in rubber industry	3

**(III) Additional Credit Courses Introduced:**

S.No.	Course Code with Name
1.	19VAAG04-Practicing PLC,Ardino for agricultural machinery Automation

**(IV) Courses in the curriculum under Regulation 2022**

S.No	Regulation	Course Code with Name	Credits
1	2022	22MA1101-MATRICES AND CALCULUS	4
2	2022	22ME1201- ENGINEERING DRAWING	3
3	2022	22PH1151- PHYSICS FOR NON-CIRCUIT ENGINEERING	3
4	2022	22HE11510- ENGLISH FOR ENGINEERS	3
5	2022	22HE1071- UHV II	2
6	2022	22MC1091- அறிவியல்தமிழ்	0
7	2022	22CY2151- CHEMISTRY FOR BIOLOGICAL SCIENCES	3
8	2022	22HE2151- EFFECTIVE TECHNICAL COMMUNICATION	3
9	2022	22MC2091- தமிழ்மரபு	0
10	2022	22MC2092- ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE	0
11	2022	22MC2093- NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment	
12	2022	22MA3109- TRANSFORMS AND APPLICATIONS	4
13	2022	22AG3253- BASIC ELECTRICAL, ELECTRONICS AND INSTRUMENTATION ENGINEERING	3
14	2022	22HE4101- IPR AND START-UPS	2
15	2022	22MA4101- APPLIED PROBABILITY AND STATISTICS FOR AGRICULTURAL ENGINEERING	3
16	2022	22AG4251- SOIL AND WATER CONSERVATION	3



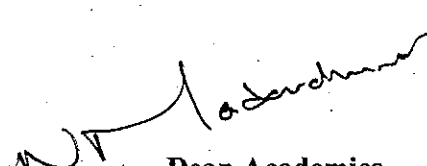
		ENGINEERING	
17	2022	22AG4252- STRENGTH OF MATERIALS FOR AGRICULTURAL ENGINEERING	3
18	2022	22HE4071- SOFT SKILLS -3	1
19	2022	22AG5201- TRACTORS AND ENGINE SYSTEMS	4
20	2022	22HE5071-SOFT SKILLS -4 /FOREIGN LANGUAGES	1
21	2022	22HE6701- SOFT SKILLS - 5	2
22	2022	22AG7202- WASTE AND BY PRODUCT UTILIZATION	4
23	2022	22AG7707- INTERNSHIP -II	2
24	2022	22AI6401- Artificial Intelligence and Machine Learning Fundamentals	3
25	2022	22CS6401- Blockchain Technology	3
26	2022	22EC6401- Cyber security	3
27	2022	22EC6402- IoT Concepts and Applications	3
28	2022	22IT6401-Data Science and Analytics	3
29	2022	22BM6401- Augmented and Virtual Reality	3
30	2022	22EI7401- Smart Sensors for Engineering Applications	3
31	2022	22EI7402- Electrical Energy Management and Audit	3
32	2022	22LS7406- Democracy and Good Governance	3
33	2022	22AG5301- <u>Farm Power &amp; Machinery Management</u>	3
34	2022	22AG5302- <u>Tractor Systems and Controls</u>	3
35	2022	22AG5303- Tractor Design and Testing	3
36	2022	22AG6301- Hydraulic Control system and design	3
37	2022	22AG6302- Testing and evaluation of farm machinery and equipment	3
38	2022	22AG7301- Human Engineering and Safety in Farm Machinery Operations	3
39	2022	22AG5304- Watershed planning and Management	3
40	2022	22AG5306- Design of Micro-irrigation system	3
41	2022	22AG6303- Protected Cultivation	3
42	2022	22AG7302- Irrigation Water Quality and Waste Water Management	3
43	2022	22AG5307- Biomass Management for Fodder & Energy	3
44	2022	22AG5308- <u>Renewable Energy Sources</u>	3
45	2022	22AG53090- <u>Renewable Energy Technology</u>	3
46	2022	22AG6305- Solar and Wind energy system	3
47	2022	22AG6306- Biochemical and Thermo chemical Conversion of biomass	3
48	2022	22AG7303- Energy Audit	3
49	2022	22AG5311- Food Process Equipment and Design	3
50	2022	22AG5312- Food Plant Design and Management	3
51	2022	22AG7304- Emerging Technologies in Food Processing	3
52	2022	22AG5313- Integrated Farming System	3
53	2022	22AG5314- Agri Business Management	3
54	2022	22AG6310- IT in Agricultural System	3
55	2022	22AG7305- <u>Design and Maintenance of Green House</u>	3
56	2022	22AG5316- Automation in Agriculture	3
57	2022	22AG5317- Electric and Hybrid Vehicle	3

58	2022	22AG5318- Foundation of Robotics and Drone	3
59	2022	22AG6311- Applications of RS & GIS in Resource Management	3
60	2022	22AG6312- Fundamentals of Nano Technology in Agriculture	3
61	2022	22AG7306- Gender and Integrated water Resource Management	3

**(V). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1	Suggested to create awareness among students related to MOOC Courses and credit transfer.	Considered
2	Recommended to arrange more internship opportunities for the students	Considered

  
Chairman  
(Board of Studies)

  
Dean Academics

# Hindusthan College of Engineering and Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Valley Campus, Pollachi Highway, Coimbatore – 641 032

## DEPARTMENT OF AGRICULTURAL ENGINEERING

### MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Agricultural Engineering**

Date: 21.02.2023

The Eighth Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 Even Semester was conducted on 21.02.2023 at 3.00 p.m. in the Board Room (Virtual mode), Hindusthan College of Engineering and Technology.

Google Meet: <https://meet.google.com/gvq-uyfq-hqj>

The following members were present:

S.No.	Name of the Member	Position
1.	Dr Sridhar N Associate Professor & Head, Department of Agricultural Engineering, HiCET.	Chairman
2.	Dr.M.Krishnaveni Professor (Agrl. Engg), Centre for Water Resources Anna University, Chennai.	University Nominee
3.	Mr. C.Mayilsamy Professor & Head Dept of Agrl. Engg, Karunya Institute of Technology and Sciences, Coimbatore	Academic Expert
4.	Dr.M. Singaravelu Professor Dept of Agrl. Engg SNS College of Engineering Coimbatore.	Academic Expert
5.	Dr.Manickavasagan Annamalai Associate Professor, University of Guelph, Ontario, Canada	Academic Expert
6.	Mr.C.V.Madheswaran Managing Director, KSNM Marketing, Coimbatore BME Industrial Expert; SF NO 29/1B Onapalayam Coimbatore- 641190.	Industry Expert
7.	Er.Ranjitha S Manager-Farm Operations Greenzy- Krishirishi Agrofarms LLP.	Member (Alumni/Industry Expert)

	Coimbatore.	
8.	Mrs Chinju Saju Assistant Professor Department of Agricultural Engineering, HiCET.	Member
9.	Mrs.K.Ramya Assistant Professor Department of Agricultural Engineering, HiCET.	Member
10.	Mr.Seerangurayar T Assistant Professor Department of Agricultural Engineering, HiCET.	Member
11.	Mr.DineshKumar S Assistant Professor Department of Agricultural Engineering, HiCET.	Member
12.	Ms.Meena S Assistant Professor Department of Agricultural Engineering, HiCET.	Member
13.	Mr.Dhayalan V Assistant Professor Department of Agricultural Engineering, HiCET.	Member
14.	Ms.Ramya N Assistant Professor Department of Agricultural Engineering, HiCET.	Member
15.	Mr.Amaran V Assistant Professor Department of Agricultural Engineering, HiCET.	Member
16.	Dr.Rajaravi C Associate Professor Department of Agricultural Engineering, HiCET.	Member
17.	Mrs.K.GuruLakshimi HSSC Teacher – Thiruppur	Parents
18.	Mrs.Leema jaya Rose House Wife	Parents
19.	Sanjay M Department of Agricultural Engineering, HiCET.	Member (Student Nominee)
20.	Vidhya S Department of Agricultural Engineering, HiCET.	Member (Student Nominee)

The university Nominee Dr.M.Krishnaveni and all the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Eighth Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 29.08.2022. Members of the BOS approved the same.



- The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS
- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- As recommended by DAC members, syllabus revision/updation under regulation 2019 (EVEN Sem) in Theory, Theory with lab components and laboratory experiments for agriculture Engineers were discussed in the meeting.
- The curriculum and syllabus for the IV and VI semester was presented by the Chairman and discussed.
- The curriculum and syllabus for the new courses under VIII semester and MOOC (NPTEL- SWAYAM) in Professional Elective IV was discussed by the Chairman.
- The Chairman discussed the syllabus and curriculum for the new courses under regulation 2022 of II semester, laboratory components of III and IV semester and adding three more vertical in B.Tech (Hons) and B.Tech (Hons with Specialization) for the students admitted from the academic year of 2022-2023 onwards.

**The following are the recommendations put forth by the BoS members,**

#### **For the Regulations 2022 Curriculum**

1. Suggested to have three verticals for Agricultural Engineering as B.Tech (Hons) and B.Tech (Hons with Specialization) course.
2. Suggested to include advances in agriculture and employability course in the curriculum.
3. The new courses introduced and passed in Agri.Engg board has 22AG2252- Principles and Practices of Crop Production , 22AG 3002 - Soil Science Laboratory and 22AG4001- Operation and Maintenances of Farm Machinery and Engines Laboratory, similarly in S&H and Mech.Engg board has 22MA2102-Differential Equations and Complex Variables., 22CY2101-Environmental Studies 22PH2101- Basics of Material Science, 22CY2151- Chemistry For Biological Sciences, 22HE2151- Effective Technical Communication , 22ME2001-Engineering Practices , 22HE2071- Design Thinking, 22HE2072- Soft Skills -1, 22MC2091- தமிழர் மரபு, 22MC2092- Essence of Indian Traditional Knowledge, 22MC2093- NCC \*/NSS / YRC / Sports / Clubs / Society Service – Enrollment are recommended.

#### **For the Regulations 2019 curriculum and Syllabus**



1. In "21AG4251-Bio - Energy Resource Technology" recommended 40 % revisions and updates in Unit – I, II, IV and V (For the Batch 2021 – 2025).
2. In "21AG4252-Surveying and Levelling", 25 % syllabus revision in Unit V Lab component (GPS and Total Station) has been recommended for the Batch 2021 – 2025.
3. In "21AG4203-Irrigation and Drainage Engineering" recommended have 25% of revision in Unit V on Nature and extend of Drainage problems.
4. In "19AG6302-Heat and Mass Transfer for Agricultural Engineers" 30 % revision has been recommended by replacing the course content External flow, Inter flow in Unit – II. Also recommended to update the course content in Unit-IV. (For the Batch 2020 – 2024 onwards)
5. In "19AG6401 -Modern Agricultural Practices" 40 % revision has been recommended for changing the course content "In Unit I (High yield varieties), IV (Ground digger) and V (Agriculture Innovation) (For the Batch 2020 – 2024 onwards).
6. In "19AG6251 -Food and Dairy Engineering" recommended to change in Unit II, III and IV with 30 percent of revision.
7. The new courses introduced and recommended which is 19AG8301-Agricultural Business Management and Entrepreneurship, 19AG8302-On-Farm Water Management, 19AG8303-Application of drone and robotics technology in agriculture, 19AG8304-Agricultural Waste Management, 19AG8305-Energy Conservation in Agro based Industry, 19AG8306-Special Farm Equipment's, 19AG8307-Mechanics of Tillage and Traction, 19AG8308-Watershed Hydrology and Management, 19AG8309-Micro Irrigation System, 19AG8310-Agriculture Economics and Farm Management and 19AG8901-Project work .
8. The MOOC ( NPTEL- SWAYAM) courses introduced under Professional Elective IV discussed and recommended, which is 19AG8306 --- Cooling Technology: Why and How utilized in Food Processing and alied industries, 19AG8307 --- Novel Technologies for Food Processing and Self life Extension, 19AG8308 --- Machine Learning for soil and crop management.

#### **General Recommendations:**

1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.



1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.
2. Recommended to arrange more internship opportunities for the students.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- The curriculum and syllabus for the VIII semester was passed by the Agricultural Engineering board and permitted to move on Academic Council by the BoS members of Agricultural Engineering for the students admitted during the academic year 2019-2020 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the IV, VI semester Courses of B.E Agricultural Engineering program for the students admitted during the academic year 2020-2021 and onwards was suggested to move on to Academic Council.
- The curriculum and syllabus for the MOOC (NPTEL- SWAYAM) courses introduced under Professional Elective V for fast track students was passed by the Agricultural Engineering board and permitted to move on Academic Council by the BoS members of Agricultural Engineering for the students admitted during the academic year 2020-2021 and onwards.

**For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.Tech Agricultural Engineering and the same were presented and discussed. It was suggested to move on to Academic Council.
- The syllabus for Semester – II and Laboratory components of III and IV under regulation 2022 passed by the Board of Agri.Enng , Science and Humanities and Mechanical Engineering are permitted to move on Academic Council by the members of Agricultural Engineering.



- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 4.30 PM.

  
Chairman

(Board of studies)

**Chairman - BoS  
AGRI - HICET**

Enclose:

1. Previous BoS Minutes- ATR
2. Regulation 2019 with amendments
3. Curriculum and Syllabi

Copy:

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File







# Hindusthan College of Engineering and Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 22.02.2023

## ACTION TAKEN REPORT ON 8<sup>th</sup> BOS

Name of the Department: **Agricultural Engineering**

The meeting of Eighth board of studies of Regulation 2019 and Regulation 2022 for the Department of **Agricultural Engineering** Under Graduate Programme was conducted on 21.02.2023 at 2.30 pm in the Board Room, Hindusthan College of Engineering and Technology.

Google Meet: <https://meet.google.com/gvq-uyfq-hqi>

### (I) Syllabus Revision for the Regulations 2019

S.No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21AG4251-Bio - Energy Resource Technology	Modified	30 %
2.	21AG4252-Surveying and Levelling	Modified	40 %
3.	21AG4203-Irrigation and Drainage Engineering	Included	15 %
4.	19AG6302-Heat and Mass Transfer for Agricultural Engineers	Included	40 %
5.	19AG6401 -Modern Agricultural Practices	Modified	25 %
6.	19AG6251 -Food and Dairy Engineering	Incorporated	25 %

Overall Percentage of revision made in the BoS : 21 %

### (II) New Course Introduced under 2019 Regulation

S. No	Regulation	Course Code with Name	Credits
1	2019	19AG8301-Agricultural Business Management and Entrepreneurship	3
2	2019	19AG8302-On-Farm Water Management	3
3	2019	19AG8303-Application of drone and robotics technology in agriculture	3
4	2019	19AG8304-Agricultural Waste Management	3
	2019	19AG8305-Energy Conservation in Agro based Industry	3



6	2019	19AG8306-Special Farm Equipment's	3
7	2019	19AG8307-Mechanics of Tillage and Traction	3
8	2019	19AG8308-Watershed Hydrology and Management	3
9	2019	19AG8309-Micro Irrigation System	3
10	2019	19AG8310-Agriculture Economics and Farm Management	3
11	2019	19AG8901-Project work	8

**(III) The New MOOC (NPTEL- SWAYAM) courses introduced in Professional Elective IV Introduced under 2019 Regulation**

S. No	Regulation	Course Code with Name	Credits
1	19AG8306	Cooling Technology: Why and How utilized in Food Processing and allied industries	3
2	19AG8307	Novel Technologies for Food Processing and Self life Extension	3
3	19AG8308	Machine Learning for soil and crop management	3
4	19AG8309	Web based Technologies and Multimedia Applications	3

**(IV) Additional Credit Courses Introduced:**

S.No.	Course Code with Name
1.	21AGVA401 & Basics of Embedded system with Robotics & IoT
2.	19AGVA601 & Basics of Machine Learning and AI

**(V) New Course Introduced under Regulation 2022**

S.No	Regulation	Course Code with Name	Credits
1	2022	22AG2252- Principles and Practices of Crop Production	3
2	2022	22 AG 3002- Soil Science Laboratory	1.5
3	2022	22 AG 4001- Operation and Maintenances of Farm Machinery and Engines Laboratory	1.5

**Three more VERTICALS introduced for B.Tech ( Hons) & B.Tech( Hons with Specialization )**

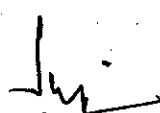
VERTICAL I	VERTICAL II	VERTICAL III
Modern Technology in Agricultural Engineering- I	Modern Technology in Agricultural Engineering- II	Crop Production and Management



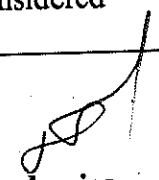
ADVANCE NANO TECHNOLOGY IN AGRICULTURAL ENGINEERING	PRODUCTION TECHNOLOGY OF AGRIL. MACHINERY.	PRINCIPLES OF ORGANIC FARMING AND VERTICAL FARMING
TRACTOR DESIGN AND TESTING	FIELD OPERATION AND MAINTENANCE OF TRACTORS AND FARM MACHINERY	MANURES, FERTILIZERS AND SOIL FERTILITY MANAGEMENT
COMPUTATIONAL WATERSHED HYDROLOGY	GULLEY & RAVINE CONTROL STRUCTURES	FARM MANAGEMENT, PRODUCTION AND RESOURCE ECONOMICS
LANDSCAPE ARCHITECTURE	RESERVOIR & FARM POND DESIGN	MINOR IRRIGATION & COMMAND AREA DEVELOPMENT
FOOD SAFETY AND QUALITY ASSURANCE	ENGINEERING PROPERTIES OF BIOLOGICAL MATERIALS AND FOOD QUALITY	POST-HARVEST MANAGEMENT AND VALUE ADDITION OF HORTICULTURAL CROPS
CLEAN ENERGY TECHNOLOGIES	ENERGY STORAGE SYSTEMS	ENVIRONMENTAL STUDIES & DISASTER MANAGEMENT

**(VI). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1	Suggested to create awareness among students related to MOOC Courses and credit transfer.	Considered
2	Recommended to arrange more internship opportunities for the students	Considered

  
Chairman  
(Board of Studies)  
**Chairman - BoS**  
**AGRI - HiCET**



  
Dean Academics  
**Dean (Academics)**  
**HiCET**



**DEPARTMENT OF FOOD TECHNOLOGY**  
**MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **Food Technology**

The Seventh Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 ODD semester was conducted on 22.08.2022 at 11.00 a.m. in the Board room, HICET, Coimbatore through hybrid Mode (Offline and Online - Google meet: <https://meet.google.com/tkn-ewpq-uxk>).

The following members were present:

S. No.	Name of the Person	Department	Position
1	Dr. Jeevarathinam G	Associate Professor & Head, Department of Food Technology, HICET.	Chairman
2	Dr. Nandhini Devi G	Associate Professor, Centre for Food Technology, ACT Campus, Anna University, Chennai.	University Nominee
3	Dr Shanmugasundaram S	Registrar (i/c), Department of Food Process Engineering, NIFTEM-T (Formerly Indian Institute of Food Processing Technology), Ministry of Food Processing Industries, Government of India Pudukkottai Road, Thanjavur.	Subject Expert
4	Dr Eyarkai Nambi V	Associate Professor, Department of Academics and HRD, NIFTEM-T (Indian Institute of Food Processing Technology), Ministry of Food Processing Industries, Government of India Pudukkottai Road, Thanjavur.	Subject Expert
5	Mrs.Vidyalakshmi Y	Head of Quality Assurance,	Industry



		Olam international Pvt., Ltd, Kerala.	Expert
6	Dr Pandiselvam R	Scientist, Physiology, Biochemistry and Post- Harvest Technology Division, ICAR –Central Plantation Crops Research Institute, Kasaragod-671 124, India.	Member from QIS rated Institution
7	Ms Nivetha T	Assistant Professor, Department of Food Technology, HICET.	Member
8	Dr Navarasam R	Assistant Professor, Department of Food Technology, HICET.	Member
9	Mrs Nageswari G	Assistant Professor, Department of Food Technology, HICET.	Member
10	Mr Dillwyn S	Assistant Professor, Department of Food Technology, HICET.	Member
11	Mrs Neethu C S	Assistant Professor, Department of Food Technology, HICET.	Member
12	Ms Priyadharshini S	Assistant Professor, Department of Food Technology, HICET.	Member
13	Mr Premkumar J	Assistant Professor, Department of Food Technology, HICET.	Member
14	Ms. C. Ronitalini	Crystal Tea India Private Limited, Coimbatore.	Alumini
15	Ms Sasireka P	Student, Department of Food Technology, HICET	Student Member
16	Ms Sowmya S	Student, Department of Food Technology, HICET	Student Member
17	Mr Naveen Kumar G	Student, Department of Food Technology, HICET	Student Member
18	Mr. R. Shellamuthu	Parent	Parent Member

The chairman of the BoS, **Dr Jeevarathinam G** welcomed the university nominee, Subject Experts, special invitees and all the internal members for the VII<sup>th</sup> Board of Studies meeting. The chairman introduced the BoS members.

The Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 04.02.2022. Members of BOS approved the same.





The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS.

The chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and syllabus. The Board of Studies member's suggestion has been sought in this regard.

The curriculum and syllabus for the new courses under VII semester was presented by the Chairman and discussed.

The chairman discussed the scheme of curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards.

The following points were discussed.

***The following Discussion on Curriculum and Syllabus took place:***

- The Chairman introduced the curriculum and Scheme for the Regulation 2022 and discussed the abstract of the Scheme.
- The chairman presented the curriculum and syllabus for the I and II Semester for the Regulation 2022.
- As per discussion with DAC members, a new Professional Elective IV course, 19FT7308 APPLICATION OF NANOTECHNOLOGY AND CRYOGENICS for semester VII were discussed and can be introduced in the Regulation 2019.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**

1. Suggested to Swap the course Food Analysis from VII to IV semester.
2. Suggested to include the thermodynamics course in the Engineering sciences category while discussing the scheme for R2022. The Professional Electives offered can be reframed as per the specialization in each vertical.
3. Suggested to merge the Internship I in IV<sup>th</sup> semester and Internship II in VII<sup>th</sup> semester as Internship and 2 credits may be provided.
4. Suggested to allow the students for internship in third semester onwards and evaluating their report VII<sup>th</sup> semester.
5. Suggested to include the Total Quality Management in the VII<sup>th</sup> semester.
6. Suggested to provide more courses related to Entrepreneurship, Innovation, resource planning, energy auditing, quality management, in the upcoming Regulation 2022.



7. Suggested to swap the course Food Product Equipment Design from VII to VI semester in the curriculum of R2022.

#### **For the Regulation 2019 curriculum and syllabus**

1. "19FT7201 Food Analysis and Quality Control, 19FT7203 Food Plant Layout and Management, 19FT7001 Food Packaging Laboratory, 19FT7002 Food Analysis and Quality Control Laboratory" were the new courses introduced and recommended to include in the VII<sup>th</sup> semester of Regulation 2019.
2. The new course introduced is "19FT7308 APPLICATION OF NANOTECHNOLOGY AND CRYOGENICS in the professional elective IV for semester VIII were recommended to include in the Regulation 2019.
3. Suggested to include the topics viz., "Smart packaging and its types (sensors (biosensors, gas sensors), indicators (temperature, freshness), and data carriers (barcode, RFID)), intelligent packaging, connected packaging" in UNIT V Recent trends in Food Packaging of 19FT7202 Food Packaging course.

#### **General Recommendations**

1. University Nominee and subject experts suggested to plan field visits, Industry training, guest lectures (Industry and academicians) and so on to the students for the upcoming Academic Year 2022-2023.
2. Suggested to create opportunities for the students to participate in many online certification courses, project contest.

#### **The following resolutions were made in the Board of Studies meeting,**

##### **For Regulation 2019:**

- The curriculum and syllabus of 2019 with update for the VII<sup>th</sup> semester courses of B.Tech. Food Technology program for the students admitted during the academic year 2019-2020, and onwards was suggested to move on to Academic council.


##### **For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.Tech. Food Technology and the same were presented and discussed. It was suggested to move on to Academic council.



- The syllabus for the Semester – I under regulation 2022 passed by the Board of Science and Humanities, Information Technology, Mechanical Engineering are permitted to move on Academic Council by the members of Food Technology.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 2.00 p.m.

  
**Chairman**  
**(Board of Studies)**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Regulation 2019 with amendments
4. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



Date: 02.09.2022

### **ACTION TAKEN REPORT on BoS**

Name of the Department: **Food Technology**

The Seventh Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 ODD semester was conducted on 22.08.2022 at 11.00 a.m. in the Board room, HICET, Coimbatore through hybrid Mode (Offline and Online - Google meet: <https://meet.google.com/tkn-ewpq-uxk>).

#### **(I) Syllabus Revision for the regulation 2019**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19FT7202- Food Packaging	Incorporated	10%

**Overall Syllabus Revision: 12.5 %**

#### **(II) New courses Introduced in R2019:**

S.No.	Regulation	Course code with name		Credits
1.	2019	19FT7201	Food Analysis and Quality control	3
2.	2019	19FT7203	Food Plant Layout and Management	3
3.	2019	19FT7001	Food Packaging Laboratory	2
4.	2019	19FT7002	Food Analysis and Quality control Laboratory	2
5.	2019	19FT7308	Application of Nanotechnology and Cryogenics	3

**(III) Courses Introduced in R2022**

S.No.	Regulation	Course code with name		Credits
1.	2022	22MA1101	Matrices and Calculus	4
2.	2022	22PH1151	Physics for Non-Circuit Engineering	3
3.	2022	22HE1151	English for Engineers	3
4.	2022	22ME1201	Engineering Graphics	3
5.	2022	22IT1151	Python Programming and practices	3
6.	2022	22HE1071	UHV II	2
7.	2022	22HE1072	Entrepreneurship & Innovation	1
8.	2022	22MC1091/ 22MC1092	□□□□□□□□□□□□/ Indian Constitution	-
9.	2022	22MA2106	Statistics and Numerical Methods	4
10.	2022	22CY2101	Environmental Studies	2
11.	2022	22PH2101	Basics of Material Science	2
12.	2022	22EE2101	Basic Electrical, Electronics and Instrumentation Engineering	3
13.	2022	22CY2151	Chemistry for Biological Sciences	3
14.	2022	22HE2151	Effective Technical Communication	3
15.	2022	22ME2001	Engineering Practices	2
16.	2022	22HE2071	Design Thinking	2
17.	2022	22HE2072	Soft Skills -1	1
18.	2022	22MC2091 22MC2092	□□□□□□□□□□ /Heritage of Tamils/ Essence of Indian Traditional Knowledge	-
19.	2022	22MC2093	NCC */NSS / YRC / Sports / Clubs / Society Service -Enrollment (Common)	-
20.	2022	22MA3108	Transforms and Partial Differential Equations	-
21.	2022	22FT3201	Food Microbiology	3
22.	2022	22FT3202	Heat and Mass Transfer	4
23.	2022	22FT3203	Fluid Mechanics	4
24.	2022	22FT3251	Food Chemistry	3
25.	2022	22FT3001	Unit Operations Laboratory	2



26.	2022	22FT3002	Food Microbiology Laboratory	2
27.	2022	22HE3071	Soft Skills -2	1
28.	2022	22HE3072	Ideation Skills	2
29.	2022	22HE4101	IPR and Start-ups	2
30.	2022	22MA4104	Probability and Operations Research	3
31.	2022	22FT4201	Principles of Thermodynamics	4
32.	2022	22FT4202	Refrigeration and Cold Chain Management	4
33.	2022	22FT4203	Unit operations in Food Processing	3
34.	2022	22FT4204	Food Analysis and Quality Control	3
35.	2022	22FT4001	Food Analysis and Quality Control Laboratory	2
36.	2022	22FT4002	Unit operations in Food Processing	2
37.	2022	22HE4071	Soft Skills -III	1
38.	2022	22FT5201	Fruits and Vegetable Processing Technology	3
39.	2022	22FT5202	Poultry, Meat and Fish Process Technology	3
40.	2022	22FT5251	Baking and Confectionery Technology	3
41.	2022	22FT5001	Fruits and Vegetable Processing Technology Laboratory	2
42.	2022	22HE5071	Soft Skills -4/Foreign languages	1
43.	2022	22FT6201	Dairy Engineering	3
44.	2022	22HS6101	Professional Ethics (Common)	3
45.	2022	22FT6001	Dairy Engineering Laboratory	2
46.	2022	22FT6002	Food Process Equipment Design Laboratory	2
47.	2022	22HE6071	Soft Skills - 5	2
48.	2022	22FT7201	Food Packaging	3
49.	2022	22FT7202	Food Plant Layout and Management	4
50.	2022	22FT7001	Food Packaging Laboratory	2
51.	2022	22FT7701	Internship	2
52.	2022	22FT8901	Project Work/Granted Patent	10
53.	2022	22AI6401	Artificial Intelligence and Machine Learning Fundamentals	3

54.	2022	22CS6401	Blockchain Technology	3
55.	2022	22EC6401	Cyber security	3
56.	2022	22EC6402	IoT Concepts and Applications	3
57.	2022	22IT6401	Data Science and Analytics	3
58.	2022	22BM6401	Augmented and Virtual Reality	3
59.	2022	22AE6401	Space Science	3
60.	2022	22MT6401	Introduction to Industrial Engineering	3
61.	2022	22MT6402	Industrial Safety and Environment	3
62.	2022	22CE6401	Climate Change and its Impact	3
63.	2022	22CE6402	Environment and Social Impact Assessment	3
64.	2022	22ME6401	Renewable Energy System	3
65.	2022	22ME6402	Additive Manufacturing systems	3
66.	2022	22EI6401	Introduction to Industrial Instrumentation and Control	3
67.	2022	22EI6402	Graphical Programming using Virtual Instrumentation	3
68.	2022	22AU6401	Fundamentals of Automobile Engineering	3
69.	2022	22AU6402	Automotive Vehicle Safety	3
70.	2022	22EE6401	Digital Marketing	3
71.	2022	22EE6402	Research Methodology	3
72.	2022	22FT6401	Traditional Foods	3
73.	2022	22AG6401	Urban Agriculture and Organic Farming	3
74.	2022	22CH6401	Biomass and Biorefinery	3
75.	2022	22EE7401	Fundamentals of Solar Energy & its Applications	3
76.	2022	22LS7401	General studies for competitive examinations	3
77.	2022	22LS7402	Human Rights, Women Rights and Gender equity	3
78.	2022	22LS7403	Indian ethos and Human values	3
79.	2022	22LS7404	Financial independence and management	3
80.	2022	22LS7405	Yoga for Human Excellence	3
81.	2022	22LS7406	Democracy and Good Governance	3

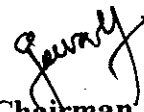
82.	2022	22LS7407	NCC Level - II	3
83.	2022	22FT5301	Technology of Fats and Oils	3
84.	2022	22FT5302	Cereal Technology	3
85.	2022	22FT5303	Processing of Legumes and Oilseeds	3
86.	2022	22FT6301	Milling Technology for Food Materials	3
87.	2022	22FT6302	Technology of Malting and Brewing	3
88.	2022	22FT7301	By Products Management	3
89.	2022	22FT7307	Quality, Laws and Regulations in grain processing Industries	3
90.	2022	22FT5304	Processing of spices & plantation crops	3
91.	2022	22FT5305	Blending and Value Addition	3
92.	2022	22FT5306	Processing of Coffee	3
93.	2022	22FT6303	Processing of Tea	3
94.	2022	22FT6304	Processing of cocoa and chocolate	3
95.	2022	22FT7302	Packaging of spices, Plantation products	3
96.	2022	22FT7308	Spice Processing and products laws, quality standards and regulations	3
97.	2022	22FT5307	Introduction to food safety Analysis and Quality Risk Management	3
98.	2022	22FT5308	HACCP in Food Processing and Preservation	3
99.	2022	22FT5309	FSMS & Food Product and Supply Chain Management	3
100.	2022	22FT6305	Food laws – Indian and International	3
101.	2022	22FT6306	Food Safety in Hospitality industry & GLP in Food Industries	3
102.	2022	22FT7303	Food Analysis, Testing & Microbial Safety Analysis	3
103.	2022	22FT7309	Food quality, Assurance and Quality Control	3
104.	2022	22FT5310	Entrepreneurship Opportunities for Food Technologist	3
105.	2022	22FT5311	Total Quality Management	3
106.	2022	22FT5312	Enterprise for resource planning	3

107.	2022	22FT6307	Consumer acceptance and Market survey in Food Processing	3
108.	2022	22FT6308	Energy audit in food processing industry	3
109.	2022	22FT7304	Food Process Economics & Industrial Management	3
110.	2022	22FT7310	Supply Chain and Retail Management	3
111.	2022	22FT5314	Food additives	3
112.	2022	22FT5315	Food colors and flavor Technology	3
113.	2022	22FT5316	Biology and Chemistry of Food Flavors	3
114.	2022	22FT6309	Functional foods and Nutraceuticals	3
115.	2022	22FT6310	Food Toxicology and Allergy	3
116.	2022	22FT7305	Genetically Modified Foods	3
117.	2022	22FT7311	Waste Management and By-Product Utilization in Food Industries	3
118.	2022	22FT5317	Principles of Food Processing	3
119.	2022	22FT5318	Post-Harvest Technology	3
120.	2022	22FT5319	Cane sugar Technology	3
121.	2022	22FT6311	Beverage Technology	3
122.	2022	22FT6312	Emerging Non-Thermal Processing of Foods	3
123.	2022	22FT7306	Emerging Technologies in Food Processing	3
124.	2022	22FT7312	Technology of Snack and Extruded Foods	3
125.	2022	22FT5031	Sem 5: Food Analysis and Quality Control	3
126.	2022	22FT6031	Sem 6: Fruits and Vegetable Processing Technology	3
127.	2022	22FT6032	Sem6: Poultry, Meat, and Fish Processing Technology	3
128.	2022	22FT7031	Sem 7: Dairy Engineering	3
129.	2022	22FT7032	Sem 7: Baking and Confectionery Technology	3
130.	2022	22FT8031	Sem 8: Food Packaging	3
131.	2022	22FT5203	Transfer Processes in Food Processing	3

132.	2022	22FT6202	Food Regulations and Food Safety Management	3
133.	2022	22FT6203	Marketing Management	4
134.	2022	22FT7203	Food Supply Chain Management	3
135.	2022	22FT7204	Inventory Management	3
136.	2022	22FT8201	Total Quality Management	2

**(IV) General Recommendations:**

S.No.	Suggestions / Comments given by the Members for 2019 Regulation	Action Taken	Report
1.	The following new courses in the semester VII were recommended to be included in the Regulation 2019: 19FT7201 - Food Analysis and Quality control 19FT7203- Food Plant Layout and Management 19FT7001- Food Packaging Laboratory 19FT7002- Food Analysis and Quality control Laboratory	Suggestion passed	Suggestion approved
2.	The new course introduced is "19FT7308 Application of Nanotechnology and Cryogenics" in the professional elective IV for semester VII were recommended to include in the Regulation 2019.	Suggestion passed on the standingcommittee	Suggestion Approved
S.No	Suggestions / Comments given by the Members for 2022 Regulation	Action Taken	Report
1.	University Nominee and subject experts suggested to plan field visits, Industry training, guest lectures (Industry and academicians) and so on to the students for the upcoming Academic Year 2022-2023.	Suggestion passed on the standing committee	Suggestion Approved
2.	Suggested to create opportunities for the students to participate in many online certification courses, project contest.	Suggestion passed on the standingcommittee	Suggestion Approved

  
Chairman  
(Board of Studies)

  
Dean Academics



**DEPARTMENT OF FOOD TECHNOLOGY**  
**MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **Food Technology**

The **Eighth Board of Studies meeting** of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 Even semester was conducted on **23.02.2023** from **2.15 -3.30 pm** in the Board room, HICET, Coimbatore through **Online Mode** (Google meet: <https://meet.google.com/fqk-pnmr-xbe>).

The following members were present:

S. No.	Name of the Person	Department	Position
1.	Dr. Jeevarathinam G	Associate Professor & Head, Department of Food Technology, HICET.	Chairman
2.	Dr. Nandhini Devi G	Associate Professor, Centre for Food Technology, ACT Campus, Anna University, Chennai.	University Nominee
3.	Dr. Shanmugasundaram S	Registrar (i/c), Department of Food Process Engineering, NIFTEM-T (Formerly Indian Institute of Food Processing Technology), Ministry of Food Processing Industries, Government of India Pudukkottai Road, Thanjavur.	Subject Expert
4.	Dr. Eyarkai Nambi V	Associate Professor, Department of Academics and HRD, NIFTEM-T (Indian Institute of Food Processing Technology), Ministry of Food Processing Industries, Government of India Pudukkottai Road, Thanjavur.	Subject Expert



5.	Mrs.Vidyalakshmi Y	Head of Quality Assurance, Olam international Pvt., Ltd, Kerala.	Industry Expert
6.	Dr. Pandiselvam R	Scientist, Physiology, Biochemistry and Post- Harvest Technology Division, ICAR –Central Plantation Crops Research Institute, Kasaragod-671 124, India.	Member from QIS rated Institution
7.	Dr. Deepa J,	Assistant Professor, Department of Food Technology, HICET.	Member
8.	Ms Nivetha T	Assistant Professor, Department of Food Technology, HICET.	Member
9.	Dr. Navarasam R	Assistant Professor, Department of Food Technology, HICET.	Member
10.	Mrs. Nageswari G	Assistant Professor, Department of Food Technology, HICET.	Member
11.	Mr. Dillwyn S	Assistant Professor, Department of Food Technology, HICET.	Member
12.	Mr. Premkumar J	Assistant Professor, Department of Food Technology, HICET.	Member
13.	Ms. Jaya Rathnam	Assistant Professor, Department of Food Technology, HICET.	Member
14.	Ms. C. Ronitalini	Crystal Tea India Private Limited, Coimbatore.	Alumini
15.	Ms Sasireka P	Student, Department of Food Technology, HICET	Student Member
16.	Ms Sowmya S	Student, Department of Food Technology, HICET	Student Member
17.	Mr Naveen Kumar M	Student, Department of Food Technology, HICET	Student Member
18.	Mr. R. Shellamuthu	Parent	Parent Member

The chairman of the BoS, **Dr Jeevarathinam G** welcomed the University nominee, Subject Experts, Special Invitees and all the Internal Members for the VIII<sup>th</sup> Board of Studies meeting. The chairman introduced the BoS members.

The Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 22.08.2022. Members of BOS approved the same.





The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS.

The chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the R 2022 Scheme, curriculum and syllabus of R2022 & R2019. The Board of Studies member's suggestion had been sought in this regard.

The following points were discussed.

***The following Discussion on Curriculum and Syllabus took place:***

- The Chairman introduced the curriculum and Scheme for the Regulation 2022 and discussed the II Semester courses in R2022.
- As per discussion with DAC members, Honors and Minor Degree courses' (R 2019) introduction for the students of the Batch 2021-2022 was presented.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**

1. Suggested to include "22FTXXXX- Biochemistry" course in the II semester instead of 22CY2151 – "Chemistry for Engineers"

**For the Regulation 2019 curriculum and syllabus**

- Revision of the course "21FT4251-Food Chemistry" in Semester IV for the students admitted in the academic year 2021-22 onwards.
- Revision of "21FT4002 Food Process Equipment Design Laboratory" in Semester IV for the students admitted in the academic year 2021-22 onwards.
- Revision of "19FT6203R Fruits and Vegetable Processing Technology" in Semester VI for the students admitted in the academic year 2020-21 onwards.

- Revision of "19FT6302R Technology of Snacks and Extruded Foods" in Semester VI (Professional Elective) for the students admitted in the academic year 2020-21 onwards.

### **General Recommendations**

1. University Nominee and subject experts suggested to plan field visits, Industry training, guest lectures (Industry and academicians) and so on to the students for the upcoming Academic Year 2022-2023.
2. Suggested to create opportunities for the students to participate in many online certification courses, project contest.

### **The following resolutions were made in the Board of Studies meeting,**

#### **For Regulation 2019:**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of 2019 with update for the VIII<sup>th</sup> semester, VI Semester and IV semester courses of B.Tech. Food Technology program for the students admitted during the academic year 2019, 2020 and 2021 and onwards was suggested to move on to Academic council.

#### **For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.Tech. Food Technology and the same were presented and discussed. It was suggested to move on to Academic cou
- The syllabus for the Semester – II and semester III & IV Laboratory coursed under regulation 2022 passed by the Board of Science and Humanities, Information Technology, Mechanical Engineering and Food Technology are permitted to move on Academic Council by the members of Food Technology.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 3.30 p.m.

  
Chairman

(Board of Studies)

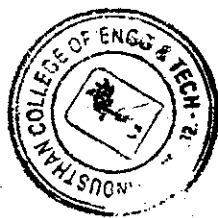
**Chairman - BoS**  
**FT - HICET**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Regulation 2019 with amendments
4. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File





### ACTION TAKEN REPORT

Name of the Department: Food Technology

The Board of studies meeting of the Department of Food Technology was conducted on 23.02.2023. The Board of studies members reviewed Regulation 2022, 2019 and Curriculum and Syllabus of 2019 of Food Technology for the academic year 2022- 2023 (Even). This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

#### (i) Syllabus Revision:

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21FT4251- Food Chemistry	Modified	30%
2.	21FT4002 - Food Process Equipment Design Laboratory	Incorporated	30%
3.	19FT6203R - Fruits and Vegetable Processing Technology	Modified	15%
4.	19FT6302R Technology of Snacks and Extruded Food	Modified	20%

Overall Percentage of syllabus revision made in the BoS:  $4/34 * 100 = 11.76\%$


#### (ii) New courses Introduced:


S.No.	Regulation	Course code with name		Credits
1.	R2019	21FT5031	Biochemistry	4
2.	R2019	21FT6031	Design Thinking	2
3.	R2019	21FT6032	தமிழர் மரபு (Heritage of Tamils)/ Essence of Indian Traditional Knowledge	0
4.	R2019	21FT7031	NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	0

5.	R2019	21FT7032	Unit Operations Laboratory	2
6.	R2019	21FT8031	Food Microbiology Laboratory	2
7.	R2019	21FT5203	Transfer Processes in Food Processing	3
8.	R2019	21FT6202	Food Regulations and Food Safety Management	3
9.	R2019	21FT6203	Marketing Management	3
10.	R2019	21FT7203	Food Supply Chain Management	3
11.	R2019	21FT7204	Inventory Management	3
12.	R2019	21FT8201	Total Quality Management	3
13.	R2019	21FT5204	Entrepreneurship Opportunities for Food Technologist	3
14.	R2019	21FT6204	Enterprise for resource planning	3
15.	R2019	21FT6205	Consumer acceptance and Market survey in Food Processing	4
16.	R2019	21FT7205	Energy audit in food processing industry	3
17.	R2019	21FT7206	Food Process Economics & Industrial Management	3
18.	R2019	21FT8202	Supply Chain and Retail Management	2
19.	R2019	21FT5205	Principles of Food Processing	3
20.	R2019	21FT6206	3D Food Printing and Extrusion	3
21.	R2019	21FT6207	High Pressure Processing	3
22.	R2019	21FT7207	Pulsed Light and UV-C Technology	3
23.	R2019	21FT7208	Emerging Non-Thermal Processing of Foods	3
24.	R2019	21FT8203	Emerging Technologies in Food Processing	3

S.No	Suggestions/Comments	Action taken	Remarks
1.	University Nominee and subject experts suggested to plan field visits, Industry training, guest lectures (Industry and academicians) and so on to the	Suggestions passed on the standing	Suggestion approved

	students for the upcoming Academic Year 2022-2023.	committee	
2.	Suggested to create opportunities for the students to participate in many online certification courses, project contest.	Suggestions passed on the standing committee	Suggestion approved
3.	Based on the recommendations from BoS university nominee and academic experts, the course "21FT4251-Chemistry for Engineers" was suggested to be replaced with "21FT4251-Biochemistry".	Suggestions passed on the standing committee	Suggestion approved
4.	Based on the recommendations from the DAC members, the following courses were suggested for revision through modification of topics: 21FT4251 - Food Chemistry 21FT4002 - Food Process Equipment Design Laboratory 19FT6203R - Fruits and Vegetable Processing Technology 19FT6302R - Technology of Snacks and Extruded Food	Suggestions passed on the standing committee	Suggestion approved

  
Chairman  
(Board of Studies)

  
Dean Academics  
**Dean (Academics)**  
**HICET**



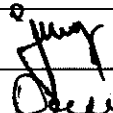
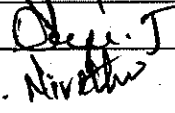
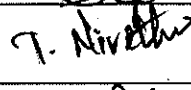
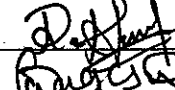
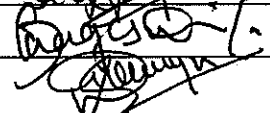
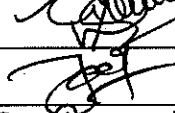
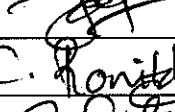
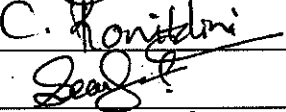
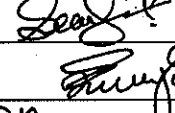
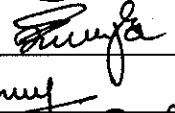
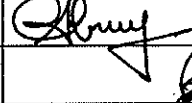
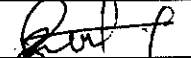




**DEPARTMENT OF FOOD TECHNOLOGY**

23.02.2023

**ATTENDANCE OF BOS MEETING**

S.No	Name of the Person	Position	Signature
1.	Dr. G. Jeevarathinam	Chairman	
2.	Dr. J. Deepa	Member	
3.	Ms. T. Nivetha	Member & Autonomous Coordinator	
4.	Dr. R. Navarasam	Member	
5.	Mrs. G. Nageswari	Member	
6.	Mr. S. Dillwyn	Member	
7.	Mr. J. Prem kumar	Member	
8.	Ms. C. Ronitalini	Alumni	
9.	Ms. Sasireka	Student member	
10.	Ms. Sowmya	Student member	
11.	Mr. Naveen Kumar G	Student member	
12.	Mr. R. Shellamuthu	Parent member	



FT-DAL



# **Hindusthan College of Engineering And Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

## **DEPARTMENT OF CHEMICAL ENGINEERING**

### **MINUTES OF BOARD OF STUDIES MEETING**

Name of the Department: **Chemical Engineering**

Date: 12.08.2022

The Seventh Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 ODD Semester was conducted on 12.08.2022 at 11.30 a.m. in the Board Room (Hybrid mode), Hindusthan College of Engineering and Technology.

Google Meet: <https://meet.google.com/gxv-njpr-otf>

The following members were present:

S.No.	Name of the Member	Position
1.	<b>Dr Seenuvasan M</b> Professor & Head, Department of Chemical Engineering, HICET.	Chairman
2.	<b>Dr Venkatesan S</b> Professor and Head Department of Petrochemical Technology University College of Engineering Bharathidasan Institute of Technology (BIT) Campus Anna University, Tiruchirappalli	University Nominee
3.	<b>Dr Prabhakaran D</b> Professor, Department of Chemical Engineering, Coimbatore Institute of Technology, Coimbatore	Academic Expert
4.	<b>Dr Parthiban R</b> Professor and Head, Department of Chemical Engineering, SSN College of Engineering, Rajiv Gandhi Salai (Old Mahabalipuram Road, SSN Nagar, Kalavakkam Chennai.	Academic Expert
5.	<b>Dr Tamilarasan K</b> Associate Professor, Department of Chemical Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai.	Academic Expert
6.	<b>Dr Raja T</b> Professor, Department of Chemical Engineering, Engineering Department, Salalah College of Technology, Salalah 211, Sultanate of Oman, Oman.	Academic Expert
7.	<b>Mr Sivanesan K</b> Asst. Manager, LSFM , ( TNPL Cement ),	Industry Expert

	Kagithapuram , Karur.	
8.	<b>Dr Sarojini G</b> Associate Professor Department of Chemical Engineering, HICET	Member
9.	<b>Dr Balasubramani K</b> Associate Professor Department of Chemical Engineering, HICET	Member
10.	<b>Dr Vivek M S</b> Assistant Professor Department of Chemical Engineering, HICET	Member
11.	<b>Mr Nagul Dev S</b> Assistant Professor Department of Chemical Engineering, HICET	Member
12.	<b>Mr Gokul Jothi R</b> Student, Department of Chemical Engineering, HICET	Student Member
13.	<b>Ms Nayana Merin M</b> Student, Department of Chemical Engineering, HICET	Student Member
14.	<b>Mr Varghese T Mammen</b> Parent	Parent Member

The university Nominee Dr Venkatesan S attended the meeting in person. All the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Sixth Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 28.01.2022. Members of the BOS approved the same.
- The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS
- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- Chairman explained about the integration of curriculum with RCPSDC (The Rubber, Chemical & Petrochemical Skill Development Council, under the aegis of National Skill Development Corporation (NSDC), GOI) under regulation 2019 for skill development and its importance to BoS members.
- Chairman indicated that two electives in the current curriculum related to RCPSDC for skill development and explained the value added courses.
- As recommended by DAC members, syllabus revision/updation under regulation 2019 (ODD Sem) in Analytical Instruments for Analysis, Safety in Chemical Industries, Water Treatment and Solid Waste Management, Chemical Process

Calculations and Fluid Mechanics for Chemical Engineers were discussed in the meeting.

- The curriculum and syllabus for the new courses under VII semester was presented by the Chairman and discussed.
- The Chairman discussed the scheme of curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards.

The following are the recommendations put forth by the BoS members,

1. In "21CH3201 - [REDACTED]" and updates in Unit – II, III and IV (For the Batch 2021 – 2025).
2. In "[REDACTED]" [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]
3. "[REDACTED]" recommended the shifting of "Dimensional analysis" from Unit-V to II.
4. "[REDACTED]" has been recommended for replacing the course content "Potential hazards – extreme operating conditions", by "Types of hazards-chemical, physical, mechanical, ergonomics, biological and noise hazards" in Unit – I. Also recommended to update the course content in Unit-II and V. (For the Batch 2020 – 2024 onwards)
5. "[REDACTED]" been recommended for replacing the course content "Electro ionization process -unit-IV & Types, Sources of Solid waste etc. unit-V,". Also recommended to include the new era technologies under "Solid Waste Management"-unit-V. (For the Batch 2020 – 2024 onwards).
6. The new courses introduced, [REDACTED] Process Economics and Engineering Management (19CH7201), Process Equipment Design (19CH7202), Design and Simulation Lab (19CH7001), Rubber and its Product Testing Lab (19CH7002) as Professional Core Courses and "Computer Application in Chemical Engineering (19CH5306), Natural Gas Engineering (19CH7301), Pulp and Paper Technology (19CH7302), Transport Phenomena (19CH7303), Multi-component Distillation (19CH7304), Chemical Process Optimization (19CH7305), Fundamentals and Testing of Rubber Compounds (19CH7306) as Professional Electives and Biomass Conversion and Bio-refinery (19CH7401) as open Elective.

7. Suggested to change the "Introduction to AI for Chemical Engineering" as Elective course.
8. Suggested to change the credit for Mechanical operations from 3 to 4.
9. Suggested to include MATLAB in the curriculum.
10. Suggested to allow the students for internship in fourth semester and evaluating their report in fifth semester.
11. The additional Credit Courses Rubber Chemistry (19VACH06), Quality Maintenance and Assurance in Rubber Industry (19VACH07), Housekeeping Maintenance in Rubber Industry (19VACH08) are recommended as value added course.
12. Employability Enhance Course introduced for members approval

#### **General Recommendations:**

1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.
2. Recommended to arrange more internship opportunities for the students.

#### **The following resolutions were made in the Board of Studies meeting,**

##### **For Regulations 2019:**


- The curriculum and syllabus for the VII semester was passed by the Chemical Engineering board and permitted to move on Academic Council by the BoS members of Chemical Engineering for the students admitted during the academic year 2019-2020 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the III,V semester Courses of B. Tech Chemical Engineering program for the students admitted during the academic year 2020-2021 and onwards was suggested to move on to Academic Council.

##### **For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.Tech Chemical Engineering and the same were presented and discussed. It was suggested to move on to Academic Council.

- The syllabus for Semester – I under regulation 2022 passed by the Board of Science and Humanities, Mechanical Engineering are permitted to move on Academic Council by the members of Chemical Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 1.30PM.

  
Chairman  
(Board of studies)

**Enclose:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 with amendments
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File







## **Hindusthan College of Engineering And Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore - 641 032

Date: 02.09.2022

### **ACTION TAKEN REPORT**

**Name of the Department:** Chemical Engineering.

The meeting of seventh board of studies of Regulation 2019 for the Department of Chemical Engineering Under Graduate Programme was conducted on 12.08.2022 at 11.30 am in the Board Room, Hindusthan College of Engineering and Technology.

#### **(I) Syllabus Revision under the Regulations 2019**

S.No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21CH3201 - Chemical Process Calculations	Modified	30%
2	21CH3251- Analytical Instruments for Analysis	Modified	35%
3	21CH3202 - Fluid Mechanics for Chemical Engineers	Modified	-
4	19CH5204 - Safety in Chemical Industries	Incorporated	30%
5	19CH5251 -Water Treatment and Solid Waste Management	Included	10%

**Overall Percentage of revision made in the BoS : 22.22%**

#### **(II) New Course Introduced (R2019):**

S. No	Regulation	Course Code with Name	Credits
1	19CH5306	Computer Application in Chemical Engineering	3
2	19CH7201	Process Economics and Engineering Management	3
3	19CH7202	Process Equipment Design	4
4	19CH7001	Design and Simulation Lab	1.5
5	19CH7002	Rubber and its Product Testing Lab	1.5
6	19CH7301	Natural Gas Engineering	3
7	19CH7302	Pulp and Paper Technology	3
8	19CH7303	Transport Phenomena	3
9	19CH7304	Multicomponent Distillation	3
10	19CH7305	Chemical Process Optimization	3
11	19CH7306	Fundamentals and Testing of Rubber Compounds	3
12	19CH7401	Biomass Conversion and Bio-refinery	3

**(III) Additional Credit Courses Introduced (R2019):**

S.No.	Course Code with Name
1.	19VAC06 - Rubber Chemistry
2.	19VACH07 - Quality Maintenance and Assurance in Rubber Industry
3.	19VACH08 - Housekeeping Maintenance in Rubber Industry

**(IV) Course in the Curriculum under R2022**

S.No.	Course Code	Course Title	Credits
1.	22MA1101	Matrices and Calculus (Common)	4
2.	22HE1151	English for Engineers (Common)	3
3.	22PH1151	Physics for Non-Circuit Engineering	3
4.	22ME1201	Engineering Drawing	3
5.	22IT1151	Python Programming and Practices	3
6.	22HE1071	Universal Human Values (Common)	2
7.	22HE1072	Entrepreneurship & Innovation (Common)	1
8.	22MC1091/ 22MC1092	அறிவியல் தமிழ்/Indian Constitution	0
9.	22HE2151	Effective Technical Communication(Common)	3
10.	22MA2108	Transforms and Partial Differential Equations(Branch specific)	4
11.	22PH2101	Basics of Material Science	2
12.	22CY2101	Environmental Studies (Common)	2
13.	22CH2201	Introduction to Chemical Engineering	3
14.	22CY2151	Chemistry for Biological Sciences	3
15.	22ME2001	Engineering Practices (Common)	2
16.	22HE2071	Design Thinking (Common)	2
17.	22HE2072	Soft Skills -1(Common)	1
18.	22MC2091/ 22MC2092	தமிழர் மரபு/ Essence of Indian Traditional Knowledge	0
19.	22MA3107	Numerical Methods	4
20.	22CH3201	Chemical Process Calculations	4
21.	22CH3202	Fluid Flow Operations	3
22.	22CH3203	Chemical Engineering Thermodynamics – I	3
23.	22CH3251	Mechanical Operations	3
24.	22ME3253	Basic Mechanical Engineering	3
25.	22CH3001	Fluid Flow Operations Lab	2
26.	22CH3002	Technical Analysis Lab	2
27.	22HE3071	Soft Skills -2 (Common)	1
28.	22HE4101	IPR and Start-ups(Common)	2
29.	22CH4201	Mass Transfer Operations - I	3
30.	22CH4202	Chemical Engineering Thermodynamics – II	3
31.	22CH4203	Process Heat Transfer	3
32.	22CH4204	Chemical Process Industries	2
33.	22EE4251	Basics of Electrical & Electronics Engineering	3


34	22CH4251	Process Instrumentation Dynamics and Control - I	3
35	22MA4001	Statistics with R-Programming Laboratory	1
36	22CH4001	Heat Transfer Lab	2
37	22HE4071	Soft Skills -3(Common)	1
38	22CH5201	Mass Transfer Operations - II	4
39	22CH5202	Chemical Reaction Engineering - I	3
40	22CH53XX	Professional Elective-1	3
41	22CH53XX	Professional Elective-2	3
42	22CH53XX	Professional Elective-3	3
43	22CH5251	Process Instrumentation Dynamics and Control - II	3
44	22CH5001	Mass Transfer Operations Lab	2
45	22HE5071	Soft Skills -4/Foreign languages	1
46	22CH6201	Chemical Reaction Engineering - II	3
47	22HE6101	Professional Ethics (Common)	3
48	22CH63XX	Professional Elective-4	3
49	22CH63XX	Professional Elective-5	3
50	22XX64XX	Open Elective - 1*	3
51	22XX64XX	Open Elective - 2*	3
52	22CH6001	Chemical Reaction Engineering Lab	2
53	22CH6002	Computational Chemical Engineering Lab	2
54	22HE6071	Soft Skills - 5(Common)	2
55	22CH7201	Process Economics and Engineering Management	3
56	22CH7202	Process Equipment Design	4
57	22CH73XX	Professional Elective-6	3
58	22XX74XX	Open Elective - 3*	3
59	22XX74XX	Open Elective - 4*	3
60	22CH7001	Design and Simulation Lab	2
61	22CH7701	Internship	2
62	22CH8901	Project Work/Granted Patent(Common)	10
<b>OPEN ELECTIVE I AND II</b>			
63	22CH6401	Biomass and Bio refinery	3
<b>OPEN ELECTIVE III</b>			
64	22CH7401	Waste to Energy Conversion	3
<b>OPEN ELECTIVE IV</b>			
65	22LS7401	General studies for competitive examinations	3
66	22LS7402	Human Rights, Women Rights and Gender equity	3
67	22LS7403	Indian ethos and Human values	3
68	22LS7404	Financial independence and management	3
69	22LS7405	Yoga for Human Excellence	3
70	22LS7406	Democracy and Good Governance	3
71	22LS7407	NCC Level - II	3
<b>PROFESSIONAL ELECTIVE COURSES</b>			
<b>DETAILS OF VERTICAL I : PETROLEUM PROCESS TECHNOLOGY</b>			
72	22CH5301	Petroleum Chemistry and Refining Fundamentals	3
73	22CH5302	Primary Refining Technology	3

74	22CH5303	Secondary Refining Technology	3
75	22CH6301	Refinery Advancements and Environmental Regulations	3
76	22CH6302	Petroleum Equipment Design	3
77	22CH7301	Petrochemical Technology	3
<b>DETAILS OF VERTICAL II : ENERGY ENGINEERING</b>			
78	22CH5304	Bioenergy	3
79	22CH5305	Renewable Energy Resources	3
80	22CH5306	Pinch Technology	3
81	22CH6303	Hydrogen And Fuel Cell Technology	3
82	22CH6304	Power Plant Engineering	3
83	22CH7302	Non-Renewable Energy Sources	3
<b>DETAILS OF VERTICAL III : BIOCHEMICAL ENGINEERING</b>			
84	22CH5307	Biochemistry	3
85	22CH5308	Bioprocess Technology	3
86	22CH5309	Fermentation & Bioprocessing	3
87	22CH6305	Bio separation & Downstream Processing	3
88	22CH6306	Enzyme Immobilization Technology	3
89	22CH7303	Bioreactor Design	3
<b>DETAILS OF VERTICAL IV: ENVIRONMENTAL AND SAFETY ENGINEERING</b>			
90	22CH5310	Biochemistry	3
91	22CH5311	Bioprocess Technology	3
92	22CH5312	Fermentation & Bioprocessing	3
93	22CH6307	Bio separation & Downstream Processing	3
94	22CH6308	Enzyme Immobilisation Technology	3
95	22CH7304	Bioreactor Design	3
<b>DETAILS OF VERTICAL V: COMPUTATIONAL ENGINEERING</b>			
96	22CH5313	Computational Techniques	3
97	22CH5314	Optimization of Chemical Processes	3
98	22CH5315	Process Modeling and Simulation	3
99	22CH6309	Pinch Analysis and Heat Exchange Network Design	3
100	22CH6310	Chemical Process Flow sheeting	3
101	22CH7305	Computational Fluid Dynamics	3
<b>DETAILS OF VERTICAL VI : COMPUTATIONAL ENGINEERING</b>			
102	22CH5316	Chemical Plant Design	3
103	22CH5317	Plant Layout	3
104	22CH5318	Design Safety	3
105	22CH6311	Material Selection	3
106	22CH6312	Statutory Requirements & Customer Care	3
107	22CH7306	Process Plant Utilities	3
<b>VERTICALS FOR MINOR DEGREE CHEMICAL ENGINEERING OFFERING MINOR DEGREE</b>			
Minor Specialization in Chemical Engineering			
108	22CH5231	Fluid Mechanics for Chemical Engineers	3

109	22CH6231	Chemical Engineering Thermodynamics	4
110	22CH6232	Heat Transfer Operations	3
111	22CH7231	Chemical Reaction Engineering	3
112	22CH7232	Mass Transfer	3
113	22CH8231	Chemical Engineering Laboratory	2
<b>Additional courses for Minor Degree</b>			
<b>VERTICAL I: FINTECH AND BLOCK CHAIN</b>			
114	22MB5231	Financial Management	3
115	22MB6231	Fundamentals of Investment	3
116	22MB6232	Banking, Financial Services and Insurance	3
117	22MB7231	Introduction to Block chain and its Applications	3
118	22MB7232	Fintech Personal Finance and Payments	3
119	22MB8231	Introduction to Fintech	3
<b>VERTICAL II: ENTREPRENEURSHIP</b>			
120	22MB5232	Foundations of Entrepreneurship	3
121	22MB6233	Team Building & Leadership Management for Business	3
122	22MB6234	Creativity & Innovation in Entrepreneurship	3
123	22MB7233	Principles of Marketing Management For Business	3
124	22MB7234	Human Resource Management for Entrepreneurs	3
125	22MB8232	Financing New Business Ventures	3
<b>VERTICAL III: ENVIRONMENT AND SUSTAINABILITY</b>			
126	22CE5232	Sustainable infrastructure Development	3
127	22AG6233	Sustainable Agriculture and Environmental Management	3
128	22BM6233	Sustainable Bio Materials	3
129	22ME7233	Materials for Energy Sustainability	3
130	22CE7233	Green Technology	3
131	22CE8232	Environmental Quality Monitoring and Analysis	3
<b>B Tech (Hons) Chemical Engineering with Specialization in Computer Aided Process Engineering</b>			
132	22CH5203	Process Flow Sheeting	3
133	22CH6202	Transport Phenomena	4
134	22CH6203	Advanced Process Optimization	3
135	22CH7203	Artificial Intelligence in Process Engineering	3
136	22CH7204	Digital Twin and Soft Computing in Process Modelling	3
137	22CH8201	Advanced Process Modelling and Simulation	2

(V). General Recommendations:

S. No	Suggestion Given by the BoS Experts	Action Taken
1	Suggested to create awareness among students related to MOOC Courses and credit transfer.	Considered
2	Recommended to arrange more internship opportunities for the students	Considered

  
Chairman  
(Board of Studies)

  
Dean Academics



## **Hindusthan College of Engineering and Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore - 641 032

### **DEPARTMENT OF CHEMICAL ENGINEERING**

#### **MINUTES OF BOARD OF STUDIES MEETING**

Date: 15.02.2023

Name of the Department: **Chemical Engineering**

The Seventh Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2022-2023 EVEN Semester was conducted on 15.02.2023 at 02.30 p.m. in the Board Room (Online mode), Hindusthan College of Engineering and Technology.

Google Meet: <https://meet.google.com/cgw-thxi-kvu>

The following members were present:

S.No.	Name of the Member	Position
1.	<b>Dr Seenuvasan M</b> Professor & Head, Department of Chemical Engineering, HICET.	Chairman
2.	<b>Dr Venkatesan S</b> Professor and Head Department of Petrochemical Technology University College of Engineering Bharathidasan Institute of Technology (BIT) Campus Anna University, Tiruchirappalli	University Nominee
3.	<b>Dr Prabhakaran D</b> Professor, Department of Chemical Engineering, Coimbatore Institute of Technology, Coimbatore	Academic Expert
4.	<b>Dr Parthiban R</b> Professor and Head, Department of Chemical Engineering, SSN College of Engineering, Rajiv Gandhi Salai (Old Mahabalipuram Road, SSN Nagar, Kalavakkam Chennai.	Academic Expert
5.	<b>Dr Tamilarasan K</b> Associate Professor, Department of Chemical Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai.	Academic Expert
6.	<b>Dr Raja T</b> Professor, Department of Chemical Engineering, Engineering Department, Salalah College of Technology, Salalah 211, Sultanate of Oman, Oman.	Academic Expert
7.	<b>Mr Sivanesan K</b> Asst. Manager, LSFM, (TNPL Cement),	Industry Expert

	Kagithapuram , Karur.	
8.	<b>Dr Sarojini G</b> Associate Professor Department of Chemical Engineering, HICET	Member
9.	<b>Dr Balasubramani K</b> Associate Professor Department of Chemical Engineering, HICET	Member
10.	<b>Dr Vivek M S</b> Assistant Professor Department of Chemical Engineering, HICET	Member
11.	<b>Mr Nagul Dev S</b> Assistant Professor Department of Chemical Engineering, HICET	Member
12.	<b>Mr Rajkumar A</b> Assistant Professor Department of Chemical Engineering, HICET	Member
13.	<b>Mr Gokul Jothi R</b> Student, Department of Chemical Engineering, HICET	Student Member
14.	<b>Mr Harish Kumar M</b> Student, Department of Chemical Engineering, HICET	Student Member
15.	<b>Mr Prabhakaran S</b> Parent	Parent Member

All the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Sixth Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 12.08.2022. Members of the BOS approved the same.
- The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS
- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- Chairman indicated the elective Sugar Technology for the VI sem. curriculum related to NPTEL Course and explained the value added courses.
- As recommended by DAC members, syllabus revision/updation under regulation 2019 (EVEN Sem) in Chemical Process Industries, Sugar Technology, Enzyme Engineering and Mechanical Operation were discussed in the meeting.
- The curriculum and syllabus for the new courses under VIII semester was presented by the Chairman and discussed.
- The Chairman discussed the two more verticals of **Honors with Specialization** under regulation 2019 & 2022 for the students admitted from the academic year 2021-2022



& 2022-2023 onwards.

**The following are the recommendations put forth by the BoS members,**

1. In "19CH6202 - Chemical Process Industries" recommended 20% revisions and updates in Unit – II and V (For the Batch2020 – 2024).
2. In "19CH6306- "Sugar Technology", 20 % syllabus revision has been recommended. (For the Batch2020 – 2024).
3. In "19CH6302 – "Enzyme Engineering" recommended 20% revisions (For the Batch 2020 – 2024).
4. In "21CH4251 – "Mechanical Operations" 20 % revision has been recommended for replacing the Unit-V (For the Batch 2021 – 2025 onwards)
5. The new courses introduced- Industrial Management (19CH8301), Sugar Technology (19CH8302), Total Quality Management (19CH8303), Foundation Skills in Integrated Product Development (19CH8304), Supply Chain Management (19CH8305), Process Plant Utilities (19CH8306), Fermentation Technology (19CH8307), Frontiers of Chemical Technology (19CH8308), Industrial Nanotechnology (19CH8309), Drugs and Pharmaceutical Technology (19CH8310), Membrane Separation Process (19CH8311), as Professional Electives.
6. In Regulation 2022 "22MA2108 Transforms and Differential Equation" has been changed to "22MA2104 Fourier analysis and Laplace Transform" which is passed in Science and Humanities BoS and presented in Chemical Engineering BoS.
7. In Regulation 2022 "Chemistry for Biological Science" has been renamed as "Chemistry for Engineers" which is passed in Science and Humanities BoS and presented in Chemical Engineering BoS.
8. In Regulation 2022 "Process Instrumentation Dynamics and Control-I&II" as Theory with Lab Component in IV& V sem recommend to replaced by "Chemical Reaction Engineering-I&II"
9. In Regulation 2022 "Process Instrumentation Dynamics and Control-I&II" as Theory with Lab Component in IV & Vsem recommend to make a single subject "Process Instrumentation Dynamics and Control in V sem.
10. In Regulation 2022 Committee recommends to include Transport Phenomena in VI sem.
11. In Regulation 2022 "Chemical Reaction Engineering Lab" in VI sem recommend to replace by "Process Control Lab" in VI sem.
12. In Regulation 2022 two more Verticals for Honors with Specialization has to be

included.

13. The additional credit course Bulk Solid Handling for Chemical Engineers (21VACH02) and Fundamentals of AI and it's Chemometric Applications (19VACH03) recommend as value added course.

14. Employability Enhance courses introduced for member's approval.

15. Recommended the MOOC course under NPTEL platform: The fast-track Students can opt the course under Professional Elective –IV “19CH8311 Membrane Separation Process” through NPTEL platform (Name of the course offered in NPTEL Platform-Membrane Technology, 12 weeks).

**General Recommendations:**

1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.
2. Recommended to arrange more internship opportunities for the students.

**The following resolutions were made in the Board of Studies meeting,**


**For Regulations 2019:**

- The curriculum and syllabus for the VIII semester (R2019) and Syllabus for “22CH2201-Introduction to Chemical Engineering” was passed by the Chemical Engineering board and permitted to move on Academic Council by the BoS members of Chemical Engineering.
- The curriculum and syllabi of 2019 with revision and updation for the IV,VI semester Courses of B. Tech Chemical Engineering program was suggested to move on to Academic Council.

**For Regulation 2022:**

- The syllabus for Semester – II under regulation 2022 passed by the Board of Science and Humanities, Mechanical Engineering are permitted to move on Academic Council by the members of Chemical Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 4.30PM.

  
Chairman  
(Board of studies)

**Enclose:**

1. Previous BoS Minutes- ATR
2. Updated Curriculum and Syllabi 2019
3. Updated Curriculum under R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File





## ***Hindusthan College of Engineering And Technology***

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 18.02.2023

### **ACTION TAKEN REPORT**

**Name of the Department:** Chemical Engineering

The meeting of VII board of studies of Regulation 2019 for the Department of Chemical Engineering Under Graduate Programme was conducted on 15.02.2023 at 02.30 pm in the Board Room, Hindusthan College of Engineering and Technology.

#### **(I) Syllabus Revision under the Regulations 2019**

S.No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19CH6306 – Sugar Technology	Modified	20%
2	19CH6202- Chemical Process Industries	Modified	20%
3	19CH6302 – Enzyme Engineering	Modified	20%
4	21CH4251 – Mechanical Operation	Modified	20%

**Overall Percentage of revision made in the BoS : 16.66 %**

#### **(II) New Course Introduced (R2019):**

S. No	Regulation	Course Code with Name	Credits
1	22CH2201	Introduction to Chemical Engineering	3
2	19CH8301	Industrial Management	3
3	19CH8302	Sugar Technology	3
4	19CH8303	Total Quality Management	3
5	19CH8304	Foundation Skills in Integrated Product Development	3
6	19CH8305	Supply Chain Management	3
7	19CH8306	Process Plant Utilities	3
8	19CH8307	Fermentation Technology	3
9	19CH8308	Frontiers of Chemical Technology	3
10	19CH8309	Industrial Nanotechnology	3
11	19CH8310	Drugs and Pharmaceutical Technology	3
12	19CH8311	Membrane Separation Process	3

**(III) Course Offered through NPTEL platform (R2019):**

SL.NO	Name of NPTEL Course	Equivalent Professional Elective-IV	Remarks	Course Details
1	MEMBRANE TECHNOLOGY	Membrane Separation Process-19CH8311	New course introduced under PE-IV	12 weeks Credit points-3

**(III) Additional Credit Courses (R2019):**

S.No.	Course Code with Name
1.	21VACH02 – Bulk Solid Handling for Chemical Engineers
2.	21VACH03 – Fundamentals of AI and its Chemo metric Applications.

**(IV) Course in the Updated Curriculum under R2022**

S.No.	Course Code	Course Title	Credits
1.	22MA1101	Matrices and Calculus (Common)	4
2.	22HE1151	English for Engineers (Common)	3
3.	22PH1151	Physics of Materials	3
4.	22ME1201	Engineering Drawing	3
5.	22IT1151	Python Programming and Practices	3
6.	22HE1071	Universal Human Values (Common)	2
7.	22HE1072	Entrepreneurship & Innovation (Common)	1
8.	22MC1091/ 22MC1092	அறிவியல்தமிழ்/Indian Constitution	0
9	22HE2151	Effective Technical Communication(Common)	3
10	22MA2104	Fourier Analysis and Laplace Transforms	4
11	22PH2101	Basics of Material Science	2
12	22CY2101	Environmental Studies	2
13	22CH2201	Introduction to Chemical Engineering	3
14	22CY2151	Chemistry for Engineers	3
15	22ME2001	Engineering Practices (Common)	2
16	22HE2071	Design Thinking (Common)	2
17	22HE2072	Soft Skills and Aptitude-I	1
18	22MC2091/ 22MC2092	தமிழர்மரபு/ Essence of Indian Traditional Knowledge	0
19	22MA3107	Numerical Methods	4
20	22CH3201	Chemical Process Calculations	4
21	22CH3202	Fluid Flow Operations	3
22	22CH3203	Chemical Engineering Thermodynamics – I	3
23	22CH3251	Mechanical Operations	3
24	22ME3253	Basic Mechanical Engineering	3
25	22CH3001	Fluid Flow Operations Lab	2
26	22CH3002	Technical Analysis Lab	2

27	22HE3071	Soft Skills -2 (Common)	1
28	22HE4101	IPR and Start-ups(Common)	2
29	22CH4201	Mass Transfer Operations - I	3
30	22CH4202	Chemical Engineering Thermodynamics – II	3
31	22CH4203	Process Heat Transfer	3
32	22CH4204	Chemical Process Industries	2
33	22EE4251	Basics of Electrical & Electronics Engineering	2
34	22CH4251	Chemical Reaction Engineering-I	3
35	22MA4151	Probability and statistics with R programming	3
36	22CH4001	Heat Transfer Lab	2
37	22HE4071	Soft Skills -3(Common)	1
38	22CH5201	Mass Transfer Operations - II	3
39	22CH5202	Process Instrumentation Dynamics & Control	3
40	22CH53XX	Professional Elective-1	3
41	22CH53XX	Professional Elective-2	3
42	22CH53XX	Professional Elective-3	3
43	22CH5251	Chemical Reaction Engineering-II	3
44	22CH5001	Mass Transfer Operations Lab	2
45	22HE5071	Soft Skills -4/Foreign languages	1
46	22CH6201	Transport Phenomena	3
47	22HE6101	Professional Ethics (Common)	3
48	22CH63XX	Professional Elective-4	3
49	22CH63XX	Professional Elective-5	3
50	22XX64XX	Open Elective – 1*	3
51	22XX64XX	Open Elective – 2*	3
52	22CH6001	Process Control Lab	2
53	22CH6002	Computational Chemical Engineering Lab	2
54	22HE6071	Soft Skills – 5(Common)	2
55	22CH7201	Process Economics and Engineering Management	3
56	22CH7202	Process Equipment Design	4
57	22CH73XX	Professional Elective-6	3
58	22XX74XX	Open Elective – 3*	3
59	22XX74XX	Open Elective – 4*	3
60	22CH7001	Design and Simulation Lab	2
61	22CH7701	Internship	2
62	22CH8901	Project Work/Granted Patent(Common)	10
<b>OPEN ELECTIVE I AND II</b>			
63	22CH6401	Biomass and Bio refinery	3
<b>OPEN ELECTIVE III</b>			
64	22CH7401	Waste to Energy Conversion	3
<b>OPEN ELECTIVE IV</b>			
65	22LS7401	General studies for competitive examinations	3
66	22LS7402	Human Rights, Women Rights and Gender equity	3
67	22LS7403	Indian ethos and Human values	3
68	22LS7404	Financial independence and management	3
69	22LS7405	Yoga for Human Excellence	3
70	22LS7406	Democracy and Good Governance	3
71	22LS7407	NCC Level – II	3

PROFESSIONAL ELECTIVE COURSES			
DETAILS OF VERTICAL I : PETROLEUM PROCESS TECHNOLOGY			
72	22CH5301	Petroleum Chemistry and Refining Fundamentals	3
73	22CH5302	Primary Refining Technology	3
74	22CH5303	Secondary Refining Technology	3
75	22CH6301	Refinery Advancements and Environmental Regulations	3
76	22CH6302	Petroleum Equipment Design	3
77	22CH7301	Petrochemical Technology	3
DETAILS OF VERTICAL II : ENERGY ENGINEERING			
78	22CH5304	Bioenergy	3
79	22CH5305	Renewable Energy Resources	3
80	22CH5306	Pinch Technology	3
81	22CH6303	Hydrogen And Fuel Cell Technology	3
82	22CH6304	Power Plant Engineering	3
83	22CH7302	Non-Renewable Energy Sources	3
DETAILS OF VERTICAL III : BIOCHEMICAL ENGINEERING			
84	22CH5307	Biochemistry	3
85	22CH5308	Bioprocess Technology	3
86	22CH5309	Fermentation & Bioprocessing	3
87	22CH6305	Bio separation & Downstream Processing	3
88	22CH6306	Enzyme Immobilization Technology	3
89	22CH7303	Bioreactor Design	3
DETAILS OF VERTICAL IV: ENVIRONMENTAL AND SAFETY ENGINEERING			
90	22CH5310	Biochemistry	3
91	22CH5311	Bioprocess Technology	3
92	22CH5312	Fermentation & Bioprocessing	3
93	22CH6307	Bio separation & Downstream Processing	3
94	22CH6308	Enzyme Immobilisation Technology	3
95	22CH7304	Bioreactor Design	3
DETAILS OF VERTICAL V: COMPUTATIONAL ENGINEERING			
96	22CH5313	Computational Techniques	3
97	22CH5314	Optimization of Chemical Processes	3
98	22CH5315	Process Modeling and Simulation	3
99	22CH6309	Pinch Analysis and Heat Exchange Network Design	3
100	22CH6310	Chemical Process Flow sheeting	3
101	22CH7305	Computational Fluid Dynamics	3
DETAILS OF VERTICAL VI : COMPUTATIONAL ENGINEERING			
102	22CH5316	Chemical Plant Design	3
103	22CH5317	Plant Layout	3
104	22CH5318	Design Safety	3
105	22CH6311	Material Selection	3
106	22CH6312	Statutory Requirements & Customer Care	3
107	22CH7306	Process Plant Utilities	3




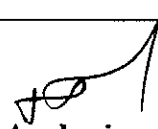
VERTICALS FOR MINOR DEGREE			
CHEMICAL ENGINEERING OFFERING MINOR DEGREE			
Minor Specialization in Chemical Engineering			
108	22CH5231	Fluid Mechanics for Chemical Engineers	3
109	22CH6231	Chemical Engineering Thermodynamics	4
110	22CH6232	Heat Transfer Operations	3
111	22CH7231	Chemical Reaction Engineering	3
112	22CH7232	Mass Transfer	3
113	22CH8231	Chemical Engineering Laboratory	2
Additional courses for Minor Degree			
VERTICAL I: FINTECH AND BLOCK CHAIN			
114	22MB5231	Financial Management	3
115	22MB6231	Fundamentals of Investment	3
116	22MB6232	Banking, Financial Services and Insurance	3
117	22MB7231	Introduction to Block chain and its Applications	3
118	22MB7232	Fintech Personal Finance and Payments	3
119	22MB8231	Introduction to Fintech	3
VERTICAL II: ENTREPRENEURSHIP			
120	22MB5232	Foundations of Entrepreneurship	3
121	22MB6233	Team Building & Leadership Management for Business	3
122	22MB6234	Creativity & Innovation in Entrepreneurship	3
123	22MB7233	Principles of Marketing Management For Business	3
124	22MB7234	Human Resource Management for Entrepreneurs	3
125	22MB8232	Financing New Business Ventures	3
VERTICAL III: ENVIRONMENT AND SUSTAINABILITY			
126	22CE5232	Sustainable infrastructure Development	3
127	22AG6233	Sustainable Agriculture and Environmental Management	3
128	22BM6233	Sustainable Bio Materials	3
129	22ME7233	Materials for Energy Sustainability	3
130	22CE7233	Green Technology	3
131	22CE8232	Environmental Quality Monitoring and Analysis	3
B Tech (Hons) Chemical Engineering with Specialization in Computer Aided Process Engineering			
132	22CH5203	Process Flow Sheetting	3
133	22CH6202	Transport Phenomena	4
134	22CH6203	Advanced Process Optimization	3
135	22CH7203	Artificial Intelligence in Process Engineering	3
136	22CH7204	Digital Twin and Soft Computing in Process Modelling	3
137	22CH8201	Advanced Process Modelling and Simulation	2
B Tech (Hons) Chemical Engineering with Specialization in Polymer Technology			
138	22CH5204	Polymer Chemistry	3
139	22CH6204	Processing Technology	3
140	22CH6205	Rubber Technology	3
141	22CH7205	Polymer Product Design, Blends, and Alloys	3

142	22CH7206	Polymer Structure and property relationships	3
143	22CH8202	Polymer Compounding Technology	3
<b>B Tech (Hons) Chemical Engineering with Specialization in Petroleum Engineering</b>			
144	22CH5205	Petroleum Geology	3
145	22CH6206	Petroleum Exploration	3
146	22CH6207	Drilling Technology	3
147	22CH7207	Petroleum Production Engineering	3
148	22CH7208	Petroleum Reservoir Engineering	3
149	22CH8203	Offshore Engineering	3

**(V). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1	Suggested to create awareness among students related to MOOC Courses and credit transfer.	Considered
2	Recommended to arrange more internship opportunities for the students	Considered

  
**Chairman**  
**(Board of Studies)**

  
**Dean Academics**

**Academic Year: 2022-2023**

**Minutes of the Board of Studies Meeting**

The meeting of the Tenth Board of Studies in Department of Computer Science and Engineering undergraduate programme was conducted on 23-08-2022 at 10:00 am in the Hybrid Mode (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs)).

The following members were present:

S. No.	Name of the Person	Department	Position
1	<b>Dr Shankar S</b> Professor & HOD	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology.	Chairman
2	<b>Dr Thulasimani K</b> Professor	Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli. Mobile: 9486939882 E-Mail id: <a href="mailto:thulasimani@gcetly.ac.in">thulasimani@gcetly.ac.in</a>	University Nominee
3	<b>Dr Sudha Sadasivam G</b> Professor	Department of Computer Science and Engineering, PSG College of Technology, Coimbatore. Mobile: 9843112267 E-Mail id: <a href="mailto:sudhasadhasivam@yahoo.com">sudhasadhasivam@yahoo.com</a>	Subject Expert
4	<b>Dr Surendiran B</b> Assistant Professor	Dept of Computer Science and Engineering, National Institute of Technology, Puducherry. Mobile: 9942761363 E-Mail id: <a href="mailto:surendiran@gmail.com">surendiran@gmail.com</a> , <a href="mailto:surendiran@nitpy.ac.in">surendiran@nitpy.ac.in</a>	Subject Expert
5	<b>Dr PRAKASH P</b> Associate Professor	School of Computer Science and Engineering, VIT Chennai. Mobile: 9884814492 E-Mail id: <a href="mailto:npprakash@gmail.com">npprakash@gmail.com</a>	Member from QIS rated Institution
6	<b>Dr JAMEER BASHA A</b> Professor & HOD	Department of Computer Science and Engineering, Hindusthan Institute of Technology. Mobile: 9443403786 E-Mail id: <a href="mailto:jameer@hit.edu.in">jameer@hit.edu.in</a>	Member from sister concern
7	<b>Mr Rajesh Kumar H</b> Founder	BuzzTech Training Institute, Coimbatore. Mobile: 9840123422 E-Mail id: <a href="mailto:rajesh.karthi79@gmail.com">rajesh.karthi79@gmail.com</a>	Industry Expert

8	<b>Mr Manuraj Rajamanikandan</b> Non-Functional Consultant	Cognizant, Kochi, Kerala. Mobile: 7845162390 E-Mail id: manuraj.rajamanikandan@cognizant.com	Alumni
9	<b>Dr Sakthi G</b> Associate Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
10	<b>Dr SATHEESH KUMAR D</b> Associate Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
11	<b>Mr Mahesh D</b> Assistant Professor	Department of Computer Science and Engineering Hindusthan College of Engineering and Technology	Member
12	<b>Mr Jayaraj R</b> Assistant Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
13	<b>Ms Ramya Devi M</b> Assistant Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
14	<b>Ms SATHYA S</b> Assistant Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
15	<b>Mr. Sriram S</b>	19104145 - IV BE CSE C	Student Member
16	<b>Mr. M.Kamalesh Kumar</b>	20104102 - III BE CSE B	Student Member
17	<b>Mr.Mohan Kumar P</b>	F/o, Mr.Kamalesh Kumar,III BE CSE B	Parent Member
18	<b>Mr Sivanandhan P</b>	F/o. Mr. Sriram IV BE CSE C	Parent Member

The chairman of the BoS, **Dr SHANKAR S** welcomed all the members for the Tenth Board of Studies meeting and thanked the Management, Chief Executive Officer, and Dean for giving permission to conduct this meeting. The chairman introduced the BoS members.

The Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the employability enhancement courses,

**5. The following suggestions were given by Board of Studies members after discussion:**

- Anna University Nominee **Dr Thulasimani K** suggested to include Applied Statistics since it is mandatory for clearing Competitive Examinations.
- Anna University Nominee **Dr Thulasimani K** enquired whether any courses that helps the students to clear Group-1 examinations is included in the Curriculum and Chairman explained few courses are introduced to clear Group-1 Examinations. Example: General Studies for Competitive Examinations.
- Academic Expert **Dr Sudha Sadasivam G** suggested to include Agile Methodology concept and Academic Expert **Mr. H. Rajesh Kumar** suggested to add the concept in Software Engineering course
- Academic Expert **Dr Surendiran B** Suggested to include Data Mining course before Machine Learning.
- Academic Expert **Dr Surendiran B** Suggested to include a course "Computer Vision" in any of the higher semesters
- Academic Expert **Dr Jameer Basha A** suggested to include mini project in Database Management Systems Laboratory.
- Industry Expert **Mr Rajesh Kumar H** suggested to revise rubrics for Mini project and suggested to provide 40% of marks for hardware and software implementation of the project, remaining 60% of marks for team work, application based project on social relevance.
- Academic Expert **Dr Prakash P** appreciated Head of the Department for the hard work which was put forth for conducting BOS meeting. He also appreciated the inclusion of certain scenario based laboratory courses as well as Employability Enhancement courses.
- Alumni **Mr Manuraj** appreciated the effort the department has taken towards building a curriculum that makes students industry-ready also balanced one regard to theoretical and practical knowledge.

**The following resolutions were made in the Board of Studies meeting:**

- In almost all the courses, changes has been made as per the Local, Regional, National and Global needs.
- The curriculum and syllabus of Regulation 2022 for the I semester subjects were passed by the Science and Humanities, Computer Science and Engineering, Mechanical Engineering, Electrical and Electronics Engineering boards and permitted

life skill, soft skill, design thinking and IPR related courses in the curriculum to be in line with the industry needs and emphasized the following points.

1. Scheme of Regulation 2022-2023
2. Courses for the Programme.
3. Syllabus for the courses of the first semester alone.
4. Syllabus passed in the S&H board to be presented for the consent.

Also, the following points were discussed.

- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved

Also, the following points were discussed.

- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved.
- Panel suggestion for introducing Professional Core Major and Professional Core Minor in new Regulation 2022.

*1. For 2019-2023 batch students, the following courses have been introduced*

- In Semester VII – As per Anna University recommendation, Professional Readiness for Innovation , Employability and Entrepreneurship course is introduced with the weightage of 3 Credit

*2. For 2020-2024 batch students, the following courses have been introduced*

- In Semester V – 19CS5252 Introduction to Design Thinking course is introduced as Theory with Lab Component as per the suggestions from IBM Partner

*3. For 2021-2025 batch students, the following courses have been introduced*

- In Semester V – 19CS5252 Introduction to Design Thinking course is introduced as Theory with Lab Component as per the suggestions from IBM Partner

*4. The following Discussion on Curriculum and Syllabus took place:*

- The Chairman of BoS introduced the Semester 1 syllabus, curriculum of semester 1 to 8 for the regulation 2022.
- The Chairman of BoS presented the syllabus for theory courses Matrices and Calculus, Basics of Electrical Engineering, Universal Human Values.
- The Chairman of BoS presented the syllabus for theory with lab component courses i.e. Chemistry for Circuit Engineering, English for Engineers – I, Problem Solving Using C Programming and also presented employment enhancement course Entrepreneurship and Innovation.

to move on Academic Council by the BoS members of Computer Science and Engineering for the students admitted during the academic year 2022-2023 and onwards.

- The syllabi of III & IV semester of the UG Programmes for the students admitted during the academic year 2021 - 2022 and onwards was passed and permitted to move on Academic Council.
- The syllabi of V & VI semester of the UG Programmes for the students admitted during the academic year 2020 - 2021 and onwards was passed and permitted to move on Academic Council.
- The syllabi of VII & VIII semester of the UG Programmes for the students admitted during the academic year 2019 - 2020 and onwards was passed and permitted to move on Academic Council.

**Percentage of Programmes where syllabus revision was carried out in BoS:**

- a) Semester: VII, Course Name: Professional Readiness for Innovation , Employability and Entrepreneurship course, Credits: 3 (Percentage of revision was done- 100%)
- b) Semester: V, Course Code: 19CS5252, Course Name: Introduction to Design Thinking (Theory with Lab component course), Credits: 3 (Percentage of revision was done- 100%)
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses. The meeting came to an end at 11:00 am with vote of thanks.

  
Chairman - BoS

**Enclose:**

1. Previous BoS meeting Minutes -Action Taken Report
2. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File







*Hindusthan College of Engineering And Technology*  
Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)

Coinbatore – 641 032



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Action taken report – Board of Studies meeting**

Action taken report for the Tenth Board of Studies meeting conducted for the Academic Year: 2022 – 2023(ODD SEMESTER) on 23-08-2022 at 10.00 am Hybrid Mode (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs)).

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	Professional Readiness for Innovation, Employability and Entrepreneurship course	Incorporated	100%
2.	Introduction to Design Thinking	Incorporated	100%

**Overall Percentage of syllabus revision made in the BoS : 17 %**

**(ii) New courses Introduced in regulation 2019:**

S.No.	Regulation	Course code with name	Credits
1.	2019R	19IT7003-Professional Readiness for Innovation, Employability and Entrepreneurship course	3
2.	2019R	19CSS251- Introduction to Design Thinking	3

**Courses in the curriculum 2022:**

S.No.	Regulation	Course code with name	Credits
1	2022	22MA1101 - Matrices and Calculus	4
2	2022	22EE1231 - Basics of Electrical Engineering	3
3	2022	22HE1151 - English for Engineers	3
4	2022	22CY1151 - Chemistry for Circuit Engineers	3
5	2022	22CS1151 - Problem solving using C Programming	3
6	2022	22CS1152 - Object Oriented Programming using Python	3
7	2022	22HE1071 - Universal Human Values	2
8	2022	22HE1072 - Entrepreneurship & Innovation	1
9	2022	22MC1091-அறிவியல் தமிழ்	0
10	2022	22MC1092 - Indian Constitution	0
11	2022	22MA2105 - Linear Algebra & Differential Equations	4
12	2022	22PH2101 - Basics of Material Science	2
13	2022	22CY2101 - Environmental Studies	2
14	2022	22HE2151 - Effective Technical Communication	3
15	2022	22PH2151 - Physics for Circuit Engineering	3
16	2022	22IT2251 - Python programming and Practices	3

17	2022	22CS2253 - Java Fundamentals	3
18	2022	22ME2001 - Engineering Practices	2
19	2022	22HE2071 - Design Thinking	2
20	2022	22HE2072 - Soft Skills -1	1
21	2022	22MC2091 - தமிழ்மொழி	0
22	2022	22MC2092 - Essence of Indian Traditional Knowledge	0
23	2022	22MA3103 - Discrete Mathematics and Graph Theory	4
24	2022	22CS3201 - Data Structures and Algorithms	3
25	2022	22CS3202 - Operating Systems	4
26	2022	22CS3203 - Digital Principles And Computer Organization	3
27	2022	22CS3251 - Object Oriented Programming Using Java	4
28	2022	22CS3253 - Clean Coding and Devops	4
29	2022	22CS3001 - Digital Principles And Computer Organization Laboratory	2
30	2022	22CS3002 - Operating Systems Laboratory	2
31	2022	22HE3071 - Soft Skills -2	1
32	2022	22CS3003 - Data Structures and Algorithms Laboratory	2
33	2022	22HE4101 - IPR and Start-ups	2
34	2022	22CS4201 - Software Engineering	3

35	2022	22CS4202 - Foundations of Data Science	3
36	2022	22CS4204 - Data Visualization	3
37	2022	22CS4203- Database Management Systems	4
38	2022	22CS5201 - Theory Of Computation	4
39	2022	22CS5202 - Computer Networks	3
40	2022	22CS5251 - Object Oriented Analysis and Design	3
41	2022	22CS5252 - Introduction to Design Thinking	3
42	2022	22CS5001 - Engineering Clinic	2
43	2022	22HE5071 - Soft Skills -4	1
44	2022	22CS6201 - Machine Learning Techniques	3
45	2022	22HE6101 - Professional Ethics	3
46	2022	22CS6001 - Machine Learning Techniques Lab	2
47	2022	22CS6002 - Web Application Development Laboratory	2
48	2022	22HE6071 - Soft Skills - 5	2
49	2022	22CS7201 - Big Data Analytics	3
50	2022	22CS7202 - Deep Learning	4
51	2022	22CS7001 - Deep Learning Laboratory	2
52	2022	22CS7701 - Internship - II	2

53	2022	22CS8901 - Project Work	10
54	2022	22CS6451 - Blockchain Technology	3
55	2022	22CS7401 - E-Commerce	3
56	2022	22CS5301 - Data warehouse and Mining	3
57	2022	22CS5302 - Information Retrieval	3
58	2022	22CS5303 - Data Security	3
59	2022	22CS6301 - Information Science and Ethics	3
60	2022	22CS6302 - Fuzzy logic and Neural Networks	3
61	2022	22CS7301 - Recommender Systems	3
62	2022	22CS5304 - Web Technology	3
63	2022	22CS5305 - UI and UX Design	3
64	2022	22CS5306 - Software Testing and Automation	3
65	2022	22CS6303 - Principles of Programming languages	3
66	2022	22CS6304 - Web Applications Security	3
67	2022	22CS7302 - Cloud Services Management	3

68	2022	22CS5307- Wireless Sensor Networks	3
69	2022	22CS5308- Cloud Computing	3
70	2022	22CS5309- Cloud Storage infrastructure	3
71	2022	22CS6305 - Cloud Strategy Planning And Management	3
72	2022	22CS6306- Software Defined Network	3
73	2022	22CS7303- Internet Security and Privacy	3
74	2022	22CS5310- Ethical Hacking	3
75	2022	22CS5311- Digital and Mobile Forensics	3
76	2022	22CS5312- Modern Cryptography and Network Security	3
77	2022	22CS6307- Engineering Secure software systems	3
78	2022	22CS6308- Social NetworkSecurity	3
79	2022	22CS7304- Cryptocurrency and Block chain Technology	3
80	2022	22CS5313- Computer Graphics	3
81	2022	22CS5314- Image and videoanalytics	3
82	2022	22CS5315- Game Programming	3

83	2022	22CS6309- Computer Vision	3
84	2022	22CS6310- Introduction to Augmented Reality	3
85	2022	22CS7305- Virtual Reality	3
86	2022	22CS5316- Soft Computing	3
87	2022	22CS5317- Natural Language Processing	3
88	2022	22CS5318- Quantum Computing	3
89	2022	22CS6311- Cognitive Science and Analytics	3
90	2022	22CS6312- Pattern Recognition	3
91	2022	22CS7306- Ethics And AI	3
92	2022	22CS5231- Databases and SQL	3
93	2022	22CS6231- Operating Systems	3
94	2022	22CS6232- Introduction to Internet Of Things	3
95	2022	22CS7231- Introduction to Machine Learning	3
96	2022	22CS7232- Introduction to Cyber Security	3
97	2022	22CS8231- Big Data Analytics	3
98	2022	22CS5204- Design and Analysis of Algorithms	3
99	2022	22CS6203- Compiler Design	3

100	2022	22CS6204- Mobile Computing	3
101	2022	22CS7203- Introduction to Industry 4.0 and Industrial Internet of Things	3
102	2022	22CS7204- Full Stack Development	3
103	2022	22CS8201- Data Analytics with Python	3
104	2022	22CS6313 - AI Analyst	3
105	2022	22CS6314 - Business Intelligence	3
106	2022	22CS7307 - Predictive Modeling	3

**General Recommendations:**

S.No.	Suggestion given in the BoS experts	Action taken / Explanation
1	Panel Members Suggested more new courses can be introduce in the new regulation which can be useful for placement and higher studies.	Considered
2	Enquired whether any courses that helps the students to clear Group-1 examinations is included in the Curriculum	Chairman explained few courses are introduced to clear Group-1 Examinations. Example: General Studies for Competitive Examinations
3.	Suggested to include Applied Statistics since it is mandatory for clearing Competitive Examinations	Incorporated
4.	Suggested to include a course "Computer Vision" in any of the higher semesters	Already provided as Professional Elective
5.	Asked to include Agile Methodology concept	Incorporated

*S. K. J.*  
Chairman - BOS CSE





# **Hindusthan College of Engineering and Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 18.02.2023

## **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

### **MINUTES OF BOARD OF STUDIES MEETING**

Name of the Department: **COMPUTER SCIENCE AND ENGINEERING**

The 11<sup>th</sup> Board of Studies meeting of regulation R2022 for the academic year 2022 - 2023 Even Semester was conducted on 18.02.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs)).

The following members were present:

S. No.	Name of the Member	Position
1	<b>Dr Shankar S</b> <b>Professor &amp; HOD</b> Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Chairman
2	<b>Dr Thulasimani K</b> Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007	University Nominee
3	<b>Dr Sudha Sadasivam G</b> Professor Department of Computer Science and Engineering, PSG College of Technology, Coimbatore.	Subject Expert
4	<b>Dr Surendiran B</b> Assistant Professor Dept of Computer Science and Engineering, National Institute of Technology, Puducherry.	Subject Expert
5	<b>Dr PRAKASH P</b> Associate Professor School of Computer Science and Engineering, VIT Chennai.	Member from QIS rated Institution
6	<b>Mr Rajesh Kumar H</b> Founder BuzzTech Training Institute, Coimbatore.	Industry Expert
7	<b>Mr Manuraj Rajamanikandan</b> Non-Functional Consultant	Alumni

	Cognizant, Kochi, Kerala.	
8	<b>Dr .JAMEER BASHA A</b> <b>Professor &amp; HOD</b> Department of Computer Science and Engineering, Hindusthan Institute of Technology	Member from sister concern
9	<b>Ms SATHYA S</b> Assistant Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Autonomous Coordinator & BoS Member
10	<b>Dr SATHEESH KUMAR D</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
11	<b>Dr PRAKASH J</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
12	<b>Mr Mahesh D</b> Assistant Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
13	<b>Mr. Sriram S</b> 19104145 - IV BE CSE C Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
14	<b>Mr. M.Kamalesh Kumar</b> 20104102 - III BE CSE B Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
15	<b>Mr Sivanandhan P</b> Parent Member F/o. Mr. Sriram IV BE CSE C	Parent Member
16	<b>Mr.Mohan Kumar P</b> Parent Member F/o, Mr.Kamalesh Kumar,III BE CSE B	Parent Member

- Dr.S.Shankar, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the eleventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **23.08.2022**, was approved.
- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.
- The Chairman also mentioned the revision of R2019 Syllabus, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.
  - Scheme of Regulation 2022-2023
  - Courses for the Programme.
  - Syllabus for the courses of the second semester alone
  - Syllabus passed in the S&H board to be presented for the consent.
  - New regulation 2022 Curriculum and scheme and credit distribution

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors, Honors with specialization system in new regulation 2022.
- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved.
- The whole curriculum and syllabi of Second semester subject alone is discussed for 2022 regulation.

- The following NPTEL course “Introduction to Internet of Things” are found to be equivalent to 1 course of the Professional Elective-IV list offered during VI semester, R2019 using Credit transfer for NPTEL course.

**The following are the recommendations put forth by the BoS members,**

1. In “Object Oriented Programming”, Dr Thulasimani K ,University Nominee suggested including introduction to significant features of OOP in UNIT -1.
2. In “Data visualization lab ”, the subject expert Dr PRAKASH P Suggested to include with latest tools like Google charts, Tableau, Chartist, Fusion charts, Infogram, Data wrapper, etc..
3. In “DBMS”, the subject expert Dr Surendiran Suggested to change to some general tools and not specific to POSTGRE SQL
4. In “Mobile Computing and Application Development”, the Industry expert H.Rajesh Kumar Suggested to include MINI PROJECT in UNIT – 5
5. NPTEL course “Introduction to Internet of Things” is introduced as new course for the fast track students instead of Eighth semester professional elective-IV course and the course title/ code is “19CS8311 – Introduction to Internet of Things”
6. AICTE Leadership in Teaching Excellence (LITE) course is introduced as professional elective for the sixth, seventh and eighth semester for the third and final year students with three credits which inherits 50 internal marks from AICTE LITE and 50 marks as external practical exam. Newly introduced LITE courses are
  - 19IT6308 - Web Development – I
  - 19IT7307 - Web Development – II
  - 19IT8314 - Web Development - III
7. 19IT6003 - Project Based Learning is introduced with 51 project titles instead of
8. Japanese language course (N4 & N5) is offered to the students who are interested to learn Japanese language and the outcome of the Training shall help students to fetch better placement offers.
9. Value added course Infosys Spring Board is introduced in every semester, which includes various courses for the students to enhance their technical skills.
10. Skill Development courses introduced for member’s approval.
  - 21LSZ401 – General Studies for Competitive Examinations
  - 21LSZ402 – Human Rights, Women’s Rights and Gender Equality

- 21LSZ403 – Indian Ethos and Human Values
- 21LSZ404 – Indian Constitution and Political System
- 21LSZ405 – Yoga for Human Excellence

11. Employability courses introduced for member's approval.

- 22HE1071 – Universal Human Values
- 22HE1072 – Entrepreneurship & Innovation
- 22HE2071 – Design Thinking
- 22HE2072 – Soft Skills - I

**General Recommendations:**

1. Dr Sudha Sadasivam, BOS subject expert , In Syllabus, Suggested having 4 -6 (5–preferred number) course objectives and corresponding course outcomes.
2. Dr Thulasimani K , University Nominee appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses
3. Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses).

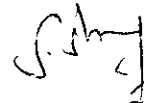
The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabi of 2019 with revision and updation for the VI semester was passed by the B. E Computer Science and Engineering board and permitted to move on Academic Council by the BoS members of CSE for the students admitted during the academic year 2022 - 2023 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the IV semester Courses of B. E Computer Science and Engineering Board for the students admitted during the academic year 2022 - 2023 and onwards was suggested to move on to Academic Council.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MAXXX, 22PHXXX, 22CYXXX, 22HEXXX, and 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MEXXXX of Group A were introduced and passed by Mechanical Engineering board and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.

- Online certificate courses under NASSCOM undergone by the students are recommended for the additional credit and were suggested to move on to Academic Council.
- As discussed about the importance of online courses in the last Pre- BoS/ DAC meeting, students have completed ICT Learnathon online certificate course during the month of July 2021. BOS Members recommended the same and was suggested to move on to Academic Council.

The meeting ended with thanks to the Chair at 12.00 AM.



Chairman

(Board of studies)

**Chairman - BoS**

**CSE - HiCET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 23. 02. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: COMPUTER SCIENCE AND ENGINEERING

The meeting of 11th board of studies of Regulation 2019 & Regulation 2022 for the B.E COMPUTER SCIENCE AND ENGINEERING Programme was conducted on 18.02.2023 at 10.00 am, in Hybrid Mode, Hindusthan College of Engineering and Technology. (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs))

### (I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	21CS4203R -Operating Systems	Modified	50%
2	21CS4002R - Operating Systems Laboratory	Modified	100%
3	19CS8311 – Introduction to internet of Things(NPTEL)	Incorporated	20%
4	19IT6308 - Web Development - I	Introduced	100%
5	19IT7307 - Web Development - II	Introduced	100%
6	19IT8314 - Web Development - III	Introduced	100%
7	19CS6306 - Development of Machine Learning Models (IBM)	Introduced	100%
8	19CS6253 - Predictive Modeling (IBM)	Introduced	100%
9	19CS6252 - Mobile Computing And Application Development	Introduced	100%
10	19CS6307 - Responsive Web Design And Development	Introduced	100%

Overall Percentage of revision made in the BoS: 19%

### (II) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1	2019	19IT6003 - Project Based Learning	1.5
2	2019	19CS8311 – Introduction to internet of Things (NPTEL)	3
3	2019	19IT6308 - Web Development - I	3
4	2019	19IT7307 - Web Development - II	3





5	2019	19IT8314 - Web Development - III	3
7	2019	19CS6306 - Development of Machine Learning Models (IBM)	4
8	2019	19CS6253 - Predictive Modeling (IBM)	3
9	2022	22MA2103 - Differential Equations And Linear Algebra	4
10	2022	22PH2101 - Basics of Material Science	2
11	2022	22HE2151 - Effective Technical Communication	3
12	2022	22PH2151 - Physics for Circuit Engineering	3
14	2022	22IT2253 - Dynamic Web Design	2
15	2022	22ME2001 - Engineering Practices	2

### (III) Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ் மரபு / Essence of Indian Traditional Knowledge.
2.	22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)

### (IV) Non-credit Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ் மரபு / Essence of Indian Traditional Knowledge.

### (V) Additional Credit Courses Introduced:

S.No.	Course Code with Name
1.	22HE2071 - Design Thinking
2.	22HE2072 - Soft Skills -I

### (VI) The following recommendations given by stakeholders are considered and incorporated.

1. In “DBMS”, the subject expert Dr Surendiran Suggested to change to some general tools and not specific to POSTGRE SQL
2. In “Mobile Computing and Application Development”, the Industry expert H.Rajesh Kumar Suggested to include MINI PROJECT in UNIT – 5.
3. In “Object Oriented Programming”, Dr Thulasimani K ,University Nominee suggested including introduction to significant features of OOP in UNIT -1



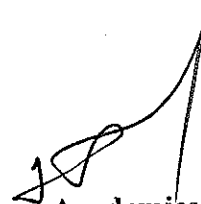
**(VII). General Recommendations:**

<b>S. No</b>	<b>Suggestion Given by the BoS Experts</b>	<b>Action Taken</b>
1.	Dr Sudha Sadasivam, BOS subject expert , In Syllabus, Suggested having 4 -6 (5-preferred number) course objectives and corresponding course outcomes.	Will be incorporated
2	Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses).	Will be incorporated



**Chairman**  
**(Board of Studies)**

**Chairman - BoS**  
**CSE - HiCET**



**Dean Academics**



**Academic Year: 2022-2023**

**9th Board of Studies Meeting Minutes**

The meeting of 9<sup>th</sup> Board of Studies in the Department of Electrical and Electronics Engineering Undergraduate programme was conducted on 23<sup>rd</sup> August 2022 at 11.30 a.m in Online Mode (Google Meet). Link: <https://meet.google.com/zed-uohj-hwz>

SI No	Name	Designation	Position
1.	Dr.T.Aruldoss Albert Victoire	Associate Professor and Head i/c, Department of Electrical and Electronics Engineering, Anna University, Regional Campus Coimbatore, Maruthamalai Main Road , Coimbatore -641046.	University Nominee
2.	Dr.K.Baskaran	Professor / Head of the Department, Department of Electrical & Electronics Engineering, Alagappa Chettiar college of Engineering and Technology, Karaikudi – 630 003	Academic Expert
3.	Dr. K. Ranjith kumar	Professor, Department of Electrical & Electronics Engineering , Government College of Technology, Coimbatore.	Academic Expert
4.	Dr. V. Karthikeyan	Assistant Professor Dept. of Electrical Engineering, National Institute of Technology, Calicut, Kerala-673 601.	Member from QS Rated Institution
5.	Mr.Pradeep	2/18 East Thottam, Kurumbapalayam post, Pollachi-642 002.	Alumni Member
6.	Mr.Rajesh kumar J	Technical manager, Marzoli Textile Machinery Manufacturing Pvt Ltd, Coimbatore - 641 004	Representative from Industry
7.	Dr.N.P.Ananthamoorthy	Professor & Head, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641 032	Chairman
2	Dr.K.Sekar	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology.Coimbatore.	Member /Professor

# Hindusthan College of Engineering and Technology

(An Autonomous Institution Affiliated to Anna University | Approved by AICTE, New Delhi,

Accredited with 'A' Grade by NAAC | Accredited by NBA (ECE, MECH, EEE, IT & CSE)

Valley Campus, Pollachi Highway, Coimbatore 641032. | [www.hicet.ac.in](http://www.hicet.ac.in)

3	Dr. K.Mathan	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Associate Professor
4	Dr. R. Rajesh Kanna	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Associate Professor
5	Ms.B.Nandhini	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor
6	Mr. M. P. Viswanathan	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor
7	Mr. G. Muthuram	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor
8	Mr.S.Joshua Daniel	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor
9	Mr.K.Saravanakumar	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor
10	Mr.N.Maheshkumar	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor
11	Mr. A.Khaja Najumudeen	Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology. Coimbatore.	Member / Assistant Professor

The Chairman –BoS (Dr.N.P.Ananthamoorthy) welcomed all the members for the 9th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 05.02.2022 was approved.
- The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS
- The Chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- The Chairman BoS elaborated the Regulations 2022 Curriculum scheme to the members also he explained the new inclusion categories in the curriculum like PCC major, PCC minor, AEC etc., with internal mark weightage system.

Department specific Board of Studies Discussion / Suggestions:

The following recommendations put forth by the BoS Members,

- Dr. V. Karthikeyan – Member form QS Rated Institution, appreciated the Curriculum scheme of 2022 regulations and accepted the R2019 subject revision.
- Dr.T.Aruldoss Albert Victoire – University nominee, suggested to incorporate advanced programming languages like C++ & java instead of C in the subject "Problem solving using C programming"
- The Chairman, BoS said that, since this course is common to all Circuit Branches, this suggestion is put forth to Standing Committee / Academic Council for accommodation.
- Dr.K.Baskaran – Academic Expert suggested that, in the subject "22XXXX - Basics of Electrical and Communication Engineering" suggested to include ELECTRICAL SAFETY as the Unit V.
- Dr. K. Ranjith kumar – Academic Expert, insisted to ensure adequate subjects to be included for the students who opt for Electric Vehicle Technology domain and also appreciated the new regulations 2022 scheme and subjects moreover he suggested to include application oriented topics and new era technologies in the higher semester syllabus.
- The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

The following resolution was made in the Board of Studies meeting,

- o The syllabi of I semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H , Mechanical , Electronics and Instrumentation, Computer science Engineering and Information Technology Board of Studies and permitted to move on Academic Council.

1. Percentage of Programmes R2019 where syllabus revision was carried out in BoS:

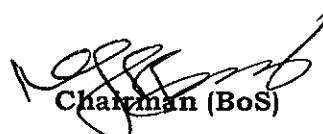
- Semester VI:19EI6181 – Industrial Safety Management (R 2019): Credit 3  
(20% of Syllabus revision was carried out)

## 2. Introduce Course:

Following new course is introduced for the students admitted in the year 2022-23 onwards

- Semester II: 22XXXX - Basics of Electrical and Communication Engineering : Credit 3

The meeting came to an end at 12.30 p.m with vote of thanks.



Chairman (BoS)

### Enclose:

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

### Copy:

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



**Action Taken Report on 9<sup>th</sup> BoS**

The meeting of the 9<sup>th</sup> Board of Studies for the Department of Electrical and Electronics Engineering

Undergraduate programme of R2022 was conducted on 23.08.2022 at 11.30 a.m in Online Mode

through Google Meet. (Meeting Link: <https://meet.google.com/zed-uohj-hwz>)

**(i) Syllabus Revision of R2019:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19EE6181- Industrial Safety Management (R2019)	Incorporated	20%

**(ii) Courses Introduced for R2022:**

S.No.	Regulation	Course code with name	Credits
1.	2022	22MA1101 - Matrices and Calculus	4
2.	2022	22CY1151- Chemistry For Circuit Engineering	3
3.	2022	22HE1151- English for Engineers	3
4.	2022	22ME1201- Engineering Drawing	3
5.	2022	22CS1151- Problem Solving Using C Programming	3
6.	2022	22HE1071- Universal Human Values -II	2
7.	2022	22HE1072- Entrepreneurship & Innovation	1
8.	2022	22MC1091/ 22MC1092- அறிவியல் தமிழ்/ Indian Constitution (Common to all branches)	0
9.	2022	22HE2151- Effective Technical Communication	3
10.	2022	22MA2104- Laplace Transforms and Differential Equations	4

11.	2022	22PH2101- Basics of Material Science	2
12.	2022	22CY2101 Environmental Sciences	2
13.	2022	22EE2201- Basics of Electrical and Communication Engineering	3
14.	2022	22PH2151- Physics	3
15.	2022	22ME2001- Engineering Practices Laboratory	2
16.	2022	22HE2071- Design Thinking	2
17.	2022	22HE2072- Soft Skills – I	1
18.	2022	22MC2091/ 22MC2092- தமிழர் மரபு /Essence of Indian Traditional Knowledge	0
19.	2022	22MC2093- NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	
20.	2022	22MA3102- Fourier Analysis and Transforms	4
21	2022	22EE3201- Electronic Devices and Circuits	3
22	2022	22EE3202- Electric Circuit Analysis	4
23	2022	22EE3203- Field Theory	3
24	2022	22HE3072- Fundamentals of JAVA Programming	2
25	2022	22EI3251- Digital Electronics	4
26	2022	22EE3001- Electric Circuits Laboratory	2
27	2022	22EE3002- Electronic Devices and Circuits Laboratory	2
28	2022	22HE3071- Soft Skills – II	1
29	2022	22HE4101- IPR and Start-ups	2
30	2022	22EE4201- Electrical Machines -I	3
31	2022	22EE4202- Integrated Circuits and Its Applications	3
32	2022	22EE4203- Transmission and Distribution	3
33	2022	22MA4103- Numerical methods	4
34	2022	22EI4251- Electrical and Electronic Measurements	3
35	2022	22EE4001- Electrical Machines – I Laboratory	2
36	2022	22EE4002- Integrated Circuits Laboratory	2
37	2022	22HE4071- Soft Skills – III	1
38	2022	22EE4701- Internship - I*	1

39	2022	22EE5201- Electrical Machines -II	3
40	2022	22EE5202- Microprocessors and Microcontrollers	3
41	2022	22EI5251- Control Systems	3
42	2022	22EE5001- Electrical Machines –II Laboratory	1.5
43	2022	22EE5002- Microprocessors and Microcontrollers Laboratory	1.5
44	2022	22EE5071- Soft Skills – IV / Foreign Language	1
45	2022	22EE6201- Power Electronics	3
46	2022	22EE6202- Power System Analysis	3
47	2022	22HS6101- Professional Ethics	3
48	2022	22EE6001- Power Electronics Laboratory	1
49	2022	22HE6071- Soft Skills - V	2
50	2022	22EE7201- Solid State Drives	3
51	2022	22EE7001- Power System Simulation Laboratory	1.5
52	2022	22EE7002- Circuit Design Laboratory	1.5
53	2022	22EE7701- Internship – I *	1
54	2022	22EE8901- Project Work / Granted Patent	10
55	2022	22EE6401- Digital Marketing	3
56	2022	22EE6402- Research Methodology	3
57	2022	22EE5301- High Voltage Direct Current Transmission	3
58	2022	22EE5302- High Voltage Engineering	3
59	2022	22EE5303- Power Quality	3
60	2022	22EE6301- Power System Operation and Control	3
61	2022	22EE6302- Flexible AC Transmission Systems	3
62	2022	22EE7301- Energy Management and Auditing	3
63	2022	22EE5304- Design of Electrical Machines	3
64	2022	22EE5305- Special Electrical Machines	3
65	2022	22EE5306- Power Semiconductor Devices	3
66	2022	22EE6303- Power Electronics for Renewable Energy Systems	3
67	2022	22EE6304- SMPS and UPS	3

68	2022	22EE7302- Utilization and Conservation of Electrical Energy	3
69	2022	22EE5307- Embedded System	3
70	2022	22EE5308- Embedded Processors	3
71	2022	22EE5309- Embedded Control for Electrical Drives	3
72	2022	22EE6305- MEMS and NEMS	3
73	2022	22EE6306- Digital Signal Processing System	3
74	2022	22EE7303- Embedded System for Automotive Applications	3
75	2022	22EE5310- Electric Vehicle Architecture	3
76	2022	22EE5311- Automotive Electronics	3
77	2022	22EE5312- Design of Motor and Power Converters for Electric Vehicles	3
78	2022	22EE6307- Design of Electric Vehicle Charging System	3
79	2022	22EE6308- Electric Vehicle Design, Mechanics and Control	3
80	2022	22EE7304- Testing of Electric Vehicles	3
81	2022	22EE5313- Process Modeling and Simulation	3
82	2022	22EE5314- Computer Control of Processes	3
83	2022	22EE5315- Model Based Control	3
84	2022	22EE6309- Non Linear Control	3
85	2022	22EE6310- Optimal Control	3
86	2022	22EE7305- Adaptive Control	3
87	2022	22EE5316- Energy Storage Systems	3
88	2022	22EE5317- Hybrid Energy Technology	3
89	2022	22EE5318- Design and Modelling of Renewable Energy Systems	3
90	2022	22EE6311- Sustainable and Environmental Friendly HV Insulation System	3
91	2022	22EE6312- Power System Transients	3
92	2022	22EE7306- PLC Programming	3
93	2022	22EE5031- Renewable Energy Systems	3
94	2022	22EE6031- Solar photovoltaic Fundamentals and Its Applications	3
95	2022	22EE6032- Power plant Instrumentation	3
96	2022	22EE7031- PLC and SCADA	3
97	2022	22EE7032- Energy Conservation and Management	3

98	2022	22EE8031- Industrial Safety Management	3
99	2022	22EE5203- Analysis of Power Converters	3
100	2022	22EE6202- Power Electronics applications in Electric vehicles	3
101	2022	22EE6203- Control of Power Electronic Circuits	3
102	2022	22EE7203- Modeling And Design of SMPS	3
103	2022	22EE7204- Soft Computing Techniques	3
104	2022	22EE8201- Electrical Estimation and Costing	3

**General Recommendations:**

S.No.	Suggestion given in the BoS experts	Action taken
1	Members suggested to ensure adequate domain subjects to be included for the students who opt for Electric Vehicle Technology domain.	Considered
2	Members suggested to include application oriented topics and new era technologies in the higher semester syllabus in Regulations 2022 curriculum.	Considered

  
 CHAIRMAN  
 BoS/EEE



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **ELECTRICAL AND ELECTRONICS ENGINEERING**

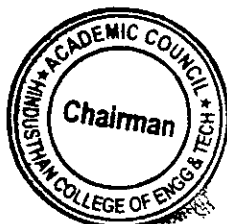
Date: **23.02.2023**

The 10<sup>th</sup> Board of Studies meeting of regulation R2022 for the academic year 2022-2023 Even Semester was conducted on 23.02.2023 at 11.00a.m/ inOnline mode, Hindusthan College of Engineering and Technology.

The following members were present:

S.No.	Name of the Member	Position
1.	Dr.N.P.Ananthamoorthy	Chairman
2.	Dr.T.Aruldoss Albert Victoire	University Nominee
3.	Dr.K.Baskaran	Academic Expert
4.	Dr. K. Ranjithkumar	Academic Expert
5.	Mr.Rajeshkumar J	Industry Expert
6.	Dr.K.Sekar	Member
7.	Dr. K.Mathan	Member
8.	Dr. R. Rajesh Kanna	Member
9.	Ms.B.Nandhini	Member
10.	Mr. M. P. Viswanathan	Member
11.	S.Dineshkumar	Student Member
12.	R.Manisha	Student Member
13.	K.V.Abhishek	Student Member
14.	K.R.Venkatrao	Parent Member

- The Chairman –BoS (Dr.N.P.Ananthamoorthy) welcomed all the members
- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 23.08.2022 was approved
- The feedback required on curriculum by the stakeholders was presented by the Chairman-BoS



- The Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the employability enhancement courses, life skill, soft skill, design thinking and IPR related courses in the curriculum to be in line with the industry needs.

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors, Honors with specialization system in new regulation 2022.
- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved.
- The whole curriculum and syllabi of Second semester subject alone is discussed for 2022 regulation.
- The following NPTEL course Microprocessors and interfacing are found to be equivalent to 1 course of the Professional Elective-IV list offered during VI semester, R2019 using Credit transfer for NPTEL course.

**The following are the recommendations put forth by the BoS members,**

1. Dr. V. Karthikeyan – Member from QS Rated Institution, appreciated the Curriculum scheme of 2022 regulations and accepted the R2019 subject revision.
2. Dr.T.Aruldoss Albert Victoire – University nominee, suggested to incorporate Digital Experiments in 22EE4002 Integrated Circuits laboratory
3. Dr.K.Baskaran – Academic Expert, suggested to include Earthing in unit V in 22EE2201- Basics of Electrical and Communication Engineering.
4. Dr. K. Ranjith kumar-Academic Expert, suggested to include of ACVM in Unit V and also use of TINKER CAD Experiments in 19EE6251R - Embedded Systems, so that it would be benefitted by students for their job role during the placements.
5. Japanese language course (N4 & N5) is offered to the students who are interested to learn Japanese language and the outcome of the Training shall help students to fetch better placement offers.
6. Skill Development courses introduced for member's approval.
  - 19 LSZ401 –GeneralStudiesfor CompetitiveExaminations
  - 19 LSZ402 – HumanRights,Women's RightsandGenderEquality





- 19 LSZ403 – IndianEthosandHuman Values
- 19 LSZ404 – IndianConstitutionand PoliticalSystem
- 19 LSZ405 – YogaforHumanExcellence

Employability courses introduced for member's approval.

- 22HE1071 – Universal Human Values
- 22HE1072 – Entrepreneurship & Innovation
- 22HE2071 – Design Thinking
- 22HE2072 – Soft Skills – I

7. The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolutions were made in the Board of Studies meeting,**

- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MAXXX, 22PHXXX, 22CYXXX, 22HEXXX, and 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MEXXXX of Group A were introduced and passed by Mechanical Engineering board and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.

The meeting ended with thanks to the Chair at 12.30 PM.

  
Chairman

(Board of studies)  
**Chairman - BoS**  
**EEE - HiCET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File





## ACTION TAKEN REPORT ON BoS

Name of the Department: ELECTRICAL AND ELECTRONICS ENGINEERING

The meeting of Tenth board of studies of Regulation 2019& Regulation 2022 for the Department of Electrical and Electronics Engineering B.E Programme was conducted on 23.02.2023 at 11.00 pm, in Hybrid Mode, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	19EE6251R-Embedded Systems	Incorporated	20%
2	19EE6181R-Industrial Safety Management	Incorporated	20%

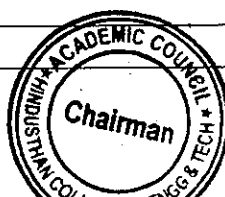
**Overall Percentage of revision made in the BoS: %**

### (II) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1.	2022	22EE2201- Basics of Electrical and Communication Engineering	3
2.	2022	22HE2151 - Effective Technical Communication	3
3.	2022	22ME2001 - Engineering Practices	2
4.	2022	22EE2231-Basics of Electrical Engineering (FT)	3

### (III) Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ்மரபு / Essence of Indian Traditional Knowledge.
2.	22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)
3.	19EE6701-Internship Training
4.	19EE6071-Soft Skills - II



5.	19HE6072-Intellectual Property Rights (IPR)
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**(IV) Non-credit Mandatory Courses**

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - கமீழரமரபு / Essence of Indian Traditional Knowledge
2.	21 MC4191-Essence of Indian tradition knowledge/Value Education
3.	<b>21HE4072- Career Guidance Level – IV</b> Personality, Aptitude and Career Development
4.	21HE4073- Ideation Skills


**(V) Additional Credit Courses Introduced:**

S.No.	Course Code with Name
1.	22HE2071 - Design Thinking
2.	22HE2072 - Soft Skills -1

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

**(VII). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	Practical classes and Mini project can be given for minor degree students	Considered

  
 Chairman  
 (Board of Studies)  
**Chairman - BoS**  
**EEE - HiCET**



  
 Dean Academics  
**Dean (Academics)**  
**HiCET**

Date: 23.08.22

**MINUTES OF BOS MEETING**

Name of the Department: BE Electronics and Communication Engineering

The Tenth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year odd 2022-23 was conducted on 23.08.2022 at 02.00 pm in Google meet (<https://meet.google.com/rho-eufr-awy>).

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.P.Vijayalakshmi Professor Hindusthan College of Engineering and Technology	ECE Dept	Chairperson
2.	Dr.S.J.Thiruvengadam, Professor and Dean(Academics), Thiagarajar College of Engineering, Madurai 625 015	ECE Dept	University Nominee
3.	Dr.C.Shanthi Professor & Head of the Department, Govt. College of Technology, Coimbatore-641 013.	ECE Dept	Subject Expert
4.	Dr.Krishaveni V, Professor (CAS) and Head, PSG College of Technology, Coimbatore-641 004.	ECE Dept	Subject Expert
5.	Ms.T.Vidhya Sri, Director, Institute Relations and HR, Adroit technologies Innovation Solutions (IBM Partner), Coimbatore.	Director	Industry Expert (IBM Partner)
6.	Dr.R.Michaelraj Kingston, Professor, Sri Eshwar College of Engineering, Coimbatore.	ECE Dept	Alumni
7.	Dr.M.Pachiyaannan, Associate Professor Vignan's foundation for Science,Technology and Research, Guntur,AndraPradesh	ECE Dept	Member from QIS rated Institution
8.	Dr.B.Paulchamy, Professor Hindusthan Institute of Technology	ECE Dept	Member from sister concern



9.	Dr.R.Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
10.	Dr.K.Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr.P.Geetha Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member /Autonomous Coordinator
12.	Dr.J.Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Mr.Naveen R IV ECE B Hindusthan College of Engineering and Technology	ECE Dept	Student Member
14.	Ms.Anumol A II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member
15.	Ms.Hariniya S II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the tenth Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 05.02.2022 was approved.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell & Department Advisory Committee (DAC) and emphasized the importance of including the cutting edge technology courses as electives in the curriculum to be in line with the industry needs.

The following are the recommendations put forth by the BoS members,

1. Chairman put forwarded the curriculum of R 2022 for all the eight. (for the students to be admitted in the year of 2022 onwards)
2. Subject Expert (Dr. C.Shanthi) suggested that, in II Sem, "Chemistry" can be included instead of 'Biology for Engineers'.





3. Subject Expert (Dr. C.Shanthi) suggested that, in 4<sup>th</sup> Sem, the title of the subject "Introduction to advanced processors" need to be modified.
  4. Member from QIS rated Institution (Dr.M.Pachiyaannan) suggested that, in PCB lab and Theory can be included in electives.
  5. Alumni (Dr. Dr.R.Michaelraj Kingston) suggested to move the subject 'Digital Signal Processing' from VI semester to IV semester.
  6. Alumni (Dr. Dr.R.Michaelraj Kingston) suggested to move 'Wireless Communication' in VIII semester to VII semester.
  7. Member from QIS rated Institution (Dr.M.Pachiyaannan) suggested to change the title 'Optical and Microwave Engineering' as 'Microwave and Optical Engineering'.
  8. Member from QIS rated Institution (Dr.M.Pachiyaannan) suggested to give more weightage to VLSI domain.
  9. University Nominee (Dr.S.J.Thiruvengadam) suggested that more weightage should be given to department subjects in the early semesters.
  10. Subject Expert (Dr.Krishaveni V) suggested to change the title of Electronic circuits as Analog Electronics. Also suggested to include basics of Electronic circuits in Electron Devices itself.
  11. Subject Expert (Dr.Krishaveni V) suggested to include Electrical Engineering in the curriculum.
  12. Subject Experts (Dr.Krishaveni V and Dr. C.Shanthi ) suggested to have 'Python Programming' in the first year, 'OOPS using C++' in the II semester and 'Data Structures and Algorithms' in III semester.
- The curriculum for R2022 was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
  - The syllabus of Angular JS for Regulation 2019 is approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2020-2021 and onwards.
  - The syllabus for the subject 'Internet of Things' for Regulation 2020 of MCA department is approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2021-2022 and onwards.



- The syllabus of I year subjects for Regulation 2022 is approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
- The Regulation 2019, Curriculum and Syllabi of semester III, V, VII for the students admitted in the academic year 2019-2020 and onwards is forwarded by the Board of Studies to the Standing committee/Academic Council and recommends for approval.

#### **General Comments**

- Credits for I semester can be increased.
- Universal Human Values can be given in higher semesters.

#### **Introduction of new courses**

1. Internet of Things for II MCA (for the students admitted in the academic year of 2021-2022).
2. Electron Devices for I BE ECE / I Sem (for the students admitted in the academic year of 2022-2023).
3. Angular JS for III BE ECE / V Sem (for the students admitted in the academic year of 2020-2021).
4. Nalayahiran to be included in IV ECE /VII Sem in electives (for the students admitted in the academic year of 2019-2020).

#### **% revision in the syllabus**

S.No	Subject	% revision
1	Nil	-

**The following resolutions were made in the Board of Studies meeting,**

#### **For Regulations 2019:**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabi of 2019 for the III, V and VII semester subjects of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2019 – 2020 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in R2019.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

#### **For Regulations 2022:**



- In almost all the courses, changes have been done as per the current needs.
- The curriculum for all semesters with the inclusion of minor and honors degree of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2022- 2023 and onwards was permitted to move on to Academic Council
- The syllabus for I semester of Regulation 2022 was passed by the Science and Humanities, Computer Science and Engineering, Mechanical Engineering and Electrical and Electronics Engineering boards are permitted to move on Academic Council by the BoS members of Electronics and Communication Engineering for the students admitted during the academic year 2022-2023 and onwards.
- The curriculum and syllabi of 2019 with amendments for the III semester subjects of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2021- 2022 and onwards was permitted to move on to Academic Council.
- The curriculum and syllabi for V semesters of Regulation 2019 with amendments were introduced for B.E Electronics and Communication Engineering program for the students admitted in the academic year 2020-21 and onwards and the same were presented and discussed. It was permitted to move on to Academic Council.
- The curriculum and syllabi for VII semesters of Regulation 2019 with amendments were introduced for B.E Electronics and Communication Engineering program for the students admitted in the academic year 2019-20 and onwards and the same were presented and discussed. It was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.

  
Chairman

(Board of Studies)

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS



Date: 27.08.22

**ACTION TAKEN REPORT ON BOS**

Name of the Department: BE Electronics and Communication Engineering

The Tenth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year odd 2022-23 was conducted on 23.08.2022 at 02.00 pm in Google meet (<https://meet.google.com/rho-eufr-awy>).

New courses introduced:

**(a) Regulation 2019**

S.No.	Regulation	Course	Course name	Credits
1.	R2019	19CS5231	Angular JS (Batch 2020-2024).	3
2.	R2019	19IT7003	Nalayathiran (Batch 2019-2023).	3

**(b) Regulation 2020**

S.No.	Regulation	Course	Course name	Credits
1.	R2020	21EC3251	Internet of Things (II MCA)	3

**(c) Regulation 2022**

S.No.	Regulation	Course	Course name	Credits
1.	R2022	22MA1101	Matrices and Calculus	4
2.	R2022	22CY1151	Chemistry for Circuit Engineering	3
3.	R2022	22HE1151	English For Engineers	3
4.	R2022	22EC1151	Electron Devices	3
5.	R2022	22IT1151	Python Programming and Practices	3
6.	R2022	22HE1071	UHV	2
7.	R2022	22HE1072	Entrepreneurship & Innovation	1
8.	R2022	22MC1091/ 22MC1092	அறிவியல்தமிழ்/ Indian Constitution	0
9.	R2022	22MA2104	Laplace Transforms and Differential Equations	4
10.	R2022	22CY2101	Environmental Studies	2
11.	R2022	22PH2101	Basics of Material Science	2





12.	R2022	22PH2151	Physics for Circuit Engineering	3
13.	R2022	22HE2151	Effective Technical Communication	3
14.	R2022	22EC2251	Programming Using C++ / Java Fundamentals	3
15.	R2022	22ME2001	Engineering Practices	2
16.	R2022	22HE2071	Design Thinking	2
17.	R2022	22HE2072	Soft Skills -1	1
18.	R2022	22MC2091 22MC2092	தமிழர்மரபு/Essence Of Indian Traditional Knowledge	0
19.	R2022	22MC2093	NCC */NSS / YRC / Sports /Clubs /Society Service	0
20.	R2022	22MA3102	Complex Analysis and Transforms	4
21.	R2022	22EC3201	Electronic Circuits	3
22.	R2022	22EC3202	Signals and Systems	3
23.	R2022	22EC3203	Digital Electronics	3
24.	R2022	22EC3251	Circuits and Networks	3
25.	R2022	22EC3252	OOPS Using JAVA	2
26.	R2022	22EC3001	Electronic Circuits Laboratory	1.5
27.	R2022	22EC3002	Digital Electronics Laboratory	1.5
28.	R2022	22HE3071	Soft Skills -2 (Common)	1
29.	R2022	22EC3901	Mini Project 1	2
30.	R2022	22HE4101	IPR And Start-Ups	2
31.	R2022	22EC4201	Electro Magnetic Fields	3
32.	R2022	22EC4202	Analog Communication	3
33.	R2022	22EC4203	Linear Integrated Circuits	3
34.	R2022	22EC4304	Transmission Lines and Waveguides	3
35.	R2022	22EC4251	Control Systems	3
36.	R2022	22EC4252	Data Communication and Networks	3
37.	R2022	22EC4001	Linear Integrated Circuits Lab	1.5
38.	R2022	22EC4002	Analog Communication Lab	1.5
39.	R2022	22HE4071	Soft Skills -3	1
40.	R2022	22EC5201	Digital Communication	3
41.	R2022	22EC5202	Antenna and Wave Propagation	4
42.	R2022	22EC5203	Microprocessors and Microcontrollers	3
43.	R2022	22EC53XX	Professional Elective-1	3
44.	R2022	22EC53XX	Professional Elective-2	3
45.	R2022	22EC53XX	Professional Elective-3	3
46.	R2022	22EC5001	Microprocessors and Microcontrollers Lab	1.5
47.	R2022	22EC5002	Digital Communication Lab	1.5
48.	R2022	22HE5071	Soft Skills -4 / Foreign Languages	1
49.	R2022	22HS6101	Professional Ethics	3



50.	R2022	22EC6251	Digital Signal Processing	3
51.	R2022	22EC6252	VLSI Design	3
52.	R2022	22EC6901	Mini Project 2	2
53.	R2022	22EC7201	Wireless Communication Networks	3
54.	R2022	22EC7001	Embedded Systems and IOT	3
55.	R2022	22EC7001	Optical Communication and Microwave	3
56.	R2022	22EC7901	Internship	2
57.	R2022	22EC8901	Project Work/Granted Product Patent	10
58.	R2022	22EC6401	Cyber Security	3
59.	R2022	22EC6402	IoT Concepts and Applications	3
60.	R2022	22EC7401	Mobile Devices -Tools and Technology	3
61.	R2022	22EC5301	Measurements and Instrumentation	3
62.	R2022	22EC5302	Medical Electronics	3
63.	R2022	22EC5303	Medical Informatics	3
64.	R2022	22EC6301	Medical Image Processing	3
65.	R2022	22EC6302	Artificial Intelligence	3
66.	R2022	22EC7301	Human Computer Interface	3
67.	R2022	22EC5304	PCB Design	3
68.	R2022	22EC5305	Advanced Processors	3
69.	R2022	22EC5306	ASIC Design	3
70.	R2022	22EC6303	Embedded Controllers	3
71.	R2022	22EC6304	Low Power VLSI	3
72.	R2022	22EC7302	Industrial Automation	3
73.	R2022	22EC5307	Fiber Optic Communication	3
74.	R2022	22EC5308	Cellular and Mobile Communication	3
75.	R2022	22EC5309	Satellite Communication	3
76.	R2022	22EC6305	Global Positioning Systems	3
77.	R2022	22EC6306	RF System Design	3
78.	R2022	22EC7303	Software Defined Radio	3
79.	R2022	22EC5310	Network Security	3
80.	R2022	22EC5311	High Speed Networks	3
81.	R2022	22EC5312	Cloud Computing	3
82.	R2022	22EC6307	Wireless Sensors and Networks	3
83.	R2022	22EC6308	Wireless Broadband Communications	3
84.	R2022	22EC7304	Cyber Forensics	3
85.	R2022	22EC5311	Total Quality Management	3
86.	R2022	22EC5312	Principles of Management	3
87.	R2022	22EC5313	Entrepreneurship Development	3
88.	R2022	22EC6309	Foundation Skills in Integrated Product	3
89.	R2022	22EC6310	Operations Management	3



90.	R2022	22EC7305	E-Commerce Technology	3
91.	R2022	22EC5314	Digital Image Processing	3
92.	R2022	22EC5315	Audio Signal Processing	3
93.	R2022	22EC5316	Machine Vision	3
94.	R2022	22EC6311	Neural networks and Deep learning	3
95.	R2022	22EC6312	Virtual Reality and Augmented Reality	3
96.	R2022	22EC7306	Robotics	3
97.	R2022	22EC5231	Microprocessors and Microcontrollers	3
98.	R2022	22EC6231	Introduction to Internet of Things	3
99.	R2022	22EC6232	Introduction to Security of Cyber Physical Systems	3
100.	R2022	22EC7231	Ubiquitous Sensing, Computing and	3
101.	R2022	22EC7232	Embedded Systems for IoT	3
102.	R2022	22EC8231	IoT with Arduino, ESP, and Raspberry Pi	3
103.	R2022	22EC5203	Information Theory and Coding	3
104.	R2022	22EC6202	Cognitive Radio Network	3
105.	R2022	22EC6203	Advanced Wireless Broadband Communications	3
106.	R2022	22EC7203	Mobile and Vehicular Communication	3
107.	R2022	22EC7204	5G Technology	3
108.	R2022	22EC8201	Massive MIMO and mmWave Systems	3

**General Recommendations:**

S.No.	Suggestion given in the BoS experts	Action taken
1	Credits for I semester can be increased.	Considered
2	Universal Human Values can be given in higher semesters.	Considered



CHAIRMAN

BOS/ECE

  
DEAN

ACADEMICS



Date: 13.02.23

**MINUTES OF BOS MEETING**

Name of the Department: BE Electronics and Communication Engineering

The Eleventh Board of Studies meeting for BE Electronics and Communication Engineering for the academic year even 2022-23 was conducted on 11.02.2023 at 10.00 am in Google meet (<https://meet.google.com/bxp-dszw-fah>).

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.P.Vijayalakshmi Professor Hindusthan College of Engineering and Technology	ECE Dept	Chairperson
2.	Dr.S.J.Thiruvengadam, Professor and Dean(Academics), Thiagarajar College of Engineering, Madurai 625 015	ECE Dept	University Nominee
3.	Dr.C.Shanthi Professor & Head of the Department, Govt. College of Technology, Coimbatore-641 013.	ECE Dept	Subject Expert
4.	Dr.Krishaveni V, Professor (CAS) and Head, PSG College of Technology, Coimbatore-641 004.	ECE Dept	Subject Expert
5.	Ms.T.Vidhya Sri, Director, Institute Relations and HR, Adroit technologies Innovation Solutions (IBM Partner), Coimbatore.	Director	Industry Expert (IBM Partner)
6.	Dr.R.Michaelraj Kingston, Professor, Sri Eshwar College of Engineering, Coimbatore.	ECE Dept	Alumni
7.	Dr.M.Pachiyaannan, Associate Professor Vignan's foundation for Science, Technology and Research, Guntur, Andhra Pradesh	ECE Dept	Member from QIS rated Institution







8.	Dr.B.Paulchamy, Professor Hindusthan Institute of Technology	ECE Dept	Member from sister concern
9.	Dr.R.Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
10.	Dr.K.Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr.P.Geetha Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member /Autonomous Coordinator
12.	Dr.J.Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Mr.Naveen R IV ECE B Hindusthan College of Engineering and Technology	ECE Dept	Student Member
14.	Ms.Anamol A III ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member
15.	Ms.Hariniya S II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 23.08.2022 was approved.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell & Department Advisory Committee (DAC) and emphasized the importance of including the cutting-edge technology courses as electives in the curriculum to be in line with the industry needs.

The following are the recommendations put forth by the BoS members,

1. Chairman also put forwarded the curriculum for minor degree in R2019(for the students admitted from 2021 onwards) and R2022(for the students admitted from 2022 onwards).





2. Chairman also put forwarded the curriculum for degree with honors, degree with honors specialization in R2019(for the students admitted from 2021 onwards) and R2022(for the students admitted from 2022 onwards).
  3. Chairman gave an outline of the feedback on curriculum received from the stakeholders.
- 
- o The changes in curriculum for R2019 was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2020-2021 and onwards
  - o The curriculum for R2022 with inclusion of minor degree, degree with honors and degree with honors specialization was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
  - o The syllabus of IBM courses 19CS6231- Node JS and Microservices and 19EC6252 -IOT and Spring Framework for R2019 was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2020-2021 and onwards.
  - o The inclusion of the subject 'Project based experiential learning' in the curriculum for Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards.) is passed and approved by the BoS members of Electronics and Communication Engineering.
  - o The syllabus for the subject 'Project based experiential learning' in Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards.) passed by IT dept BOS is approved by the BoS members of Electronics and Communication Engineering.
  - o The syllabus for the subject '19EC6253\_Digital Communication (Lab and Theory component) in Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards) is passed and approved by the BoS members of Electronics and Communication Engineering.
  - o The syllabus for the new course (PE IV) \_ Computer Communication and Internet Protocol in Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards) is passed and approved by the BoS members of Electronics and Communication Engineering.





- The swapping of professional electives Embedded controllers and Cloud computing in Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards) is approved by the BoS members of Electronics and Communication Engineering.
- The third and fourth semester syllabus for lab courses of R2022 was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
- The Syllabus for II MCA 21EC2251- Electronics for Embedded Systems was passed by the board of Electronics and Communication Engineering.
- Suggestions for the Value Added Courses was given by the BoS members.
- The syllabus for II sem BE ECE \_Programming using C (R 2022:2022-26 batch) passed by CSE BOS was approved by the BoS members of Electronics and Communication Engineering.
- The syllabus for IV sem ECE (R 2019:2021-25 batch) and VI sem ECE (R 2019:2020-24 batch) passed and approved by the BoS members of Electronics and Communication Engineering.
- The I year /II Semester syllabus passed by S&H BOS was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
- The Regulation 2019, Curriculum and Syllabi of semester IV (for the students admitted in the academic year of 2021-2022 and semester VI (for the students admitted in the academic year 2020-2021 and onwards) is forwarded by the Board of Studies to the Standing committee/Academic Council and recommends for approval.

#### **Introduction of new courses**

1. 19CS6231- Node JS and Microservices (for the students admitted in the academic year of 2020-2021) to be included in VI Sem.
2. 19EC6252 -IOT and Spring Framework (for the students admitted in the academic year of 2020-2021) to be included in VI Sem.
3. 19EC6253 \_Digital Communication (Lab and Theory component) in Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards) to be included in VI Sem
4. PE IV- 19EC8311-Computer Communication and Internet Protocol in Regulation 2019 (for the students admitted in the academic year of 2020-2021 and onwards) to be included in VI Sem.





5. 'Project based experiential learning' to be included in VI Sem (for the students admitted in the academic year of 2020-2021).

**% revision in the syllabus**

S.No	Subject	% revision
1	19EC6253_Digital Communication (Lab and Theory component)	35%

**% revision in the curriculum (BE ECE)**

Total Number of courses passed in this BOS	13
No. of courses revised	1
% revision in courses	07%

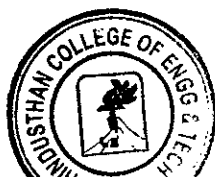
**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabi of 2019 for the VI semester subjects of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2020– 2021 and onwards was permitted to move on to Academic Council.
- The curriculum and syllabi of 2019 for the IV semester subjects with the inclusion of minor, honors degree and honors degree with specialization of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2020– 2021 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that the suggestions given by the Board of Studies members are to be incorporated in R2019.
- Chairman conveyed that the suggestions given by the Previous Board of Studies members are ratified and resolved.

**For Regulations 2022:**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum for all semesters with the inclusion of minor and honors degree of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2022- 2023 and onwards was permitted to move on to Academic Council







- The syllabus for II semester of Regulation 2022 was passed by the Science and Humanities, Computer Science and Engineering, Mechanical Engineering and Electrical and Electronics Engineering boards are permitted to move on Academic Council by the BoS members of Electronics and Communication Engineering for the students admitted during the academic year 2022-2023 and onwards.
- The curriculum and syllabi of 2019 with amendments for the IV semester subjects of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2021- 2022 and onwards was permitted to move on to Academic Council.
- The curriculum and syllabi for VI semesters of Regulation 2019 with amendments were introduced for B.E Electronics and Communication Engineering program for the students admitted in the academic year 2020-21 and onwards and the same were presented and discussed. It was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.

*f. Hayka*  
Chairman

(Board of Studies)  
**Chairman - BoS**  
**ECE - HICET**

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



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**Hindusthan College of Engineering And Technology**  
Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Othakalmandapam Post, Coimbatore  
Department of Electronics and Communication Engineering

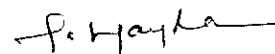
Date: 15.02.2023

**Action Taken Report**

The Eleventh Board of Studies meeting for BE Electronics and Communication Engineering for the academic year even 2022-23 was conducted on 11.02.2023 at 10.00 am in Google meet (<https://meet.google.com/bxp-dszw-fah>).

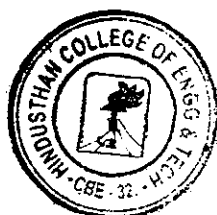
**Syllabus related Recommendations:**

S. No	Suggestions given by BoS experts	Action taken
1.	Digital Communication theory to be converted to Lab and Theory component	Changes incorporated
2.	Include Computer Communication and Internet Protocol in the elective list	Changes incorporated
3.	Introduce Project based experiential learning in curriculum	Changes incorporated



CHAIRPERSON  
BoS/ECE

**Chairman - BoS  
ECE - HiCET**



EEE BOS  
8 ME

the 1990s, the number of people in the world who are illiterate has increased from 750 million to 850 million. The number of illiterate people in the world is expected to increase to 900 million by the year 2015. The number of illiterate people in the world is expected to increase to 950 million by the year 2020. The number of illiterate people in the world is expected to increase to 1 billion by the year 2025. The number of illiterate people in the world is expected to increase to 1.1 billion by the year 2030. The number of illiterate people in the world is expected to increase to 1.2 billion by the year 2035. The number of illiterate people in the world is expected to increase to 1.3 billion by the year 2040. The number of illiterate people in the world is expected to increase to 1.4 billion by the year 2045. The number of illiterate people in the world is expected to increase to 1.5 billion by the year 2050. The number of illiterate people in the world is expected to increase to 1.6 billion by the year 2055. The number of illiterate people in the world is expected to increase to 1.7 billion by the year 2060. The number of illiterate people in the world is expected to increase to 1.8 billion by the year 2065. The number of illiterate people in the world is expected to increase to 1.9 billion by the year 2070. The number of illiterate people in the world is expected to increase to 2 billion by the year 2075. The number of illiterate people in the world is expected to increase to 2.1 billion by the year 2080. The number of illiterate people in the world is expected to increase to 2.2 billion by the year 2085. The number of illiterate people in the world is expected to increase to 2.3 billion by the year 2090. The number of illiterate people in the world is expected to increase to 2.4 billion by the year 2095. The number of illiterate people in the world is expected to increase to 2.5 billion by the year 2100.

**Academic Year: 2022-2023**

**9th Board of Studies Meeting Minutes**

The meeting of 9th Board of Studies in the Department of Electronics and Instrumentation Engineering Undergraduate programme for the academic year 2022-23 was conducted on 23.08.2022 at 10.30 a.m in Online Mode through Google Meet.  
 (Meeting Link: [meet.google.com/hoj-hvay-eug](https://meet.google.com/hoj-hvay-eug))

The following members were present:

S.No.	Name of the Member	Department	Position
1	Dr.B.Anand Professor and Head	EIE	BoS, Chairman
2	Dr.T.Aruldoss Albert Victoire, Associate Professor and Head i/c Department of Electrical and Electronics Engineering, Anna University Regional Campus Coimbatore, Coimbatore-641 046.	EEE	Anna University Nominee
3	Dr. V. Prasanna Moorthy, Professor, Department of Electronics and Instrumentation Engineering, Government College of Technology, Coimbatore – 641 013.	EIE	Subject Expert 1
4	Dr. C. Govindaraju, Associate Professor, Department of Electrical and Electronics Engineering, Government College of Engineering, Salem – 636 011.	EEE	Subject Expert 2
5	Mr.A.Ezhilmaran, Project Manager (Control & Automation), Axis Global Automation, 33,Near Manis Theatre, Kathir Avenue Street. Lakshmipuram, Coimbatore - 641 004.	Industrial Automation	Representative from Industry

6	Dr.P.Karuppanan, Professor, Department of Electronics and Communication Engineering, Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh – 211004.	ECE	Member from QS Rated Institution
7	Dr.B.Paulchamy, Professor & Head, Department of Electronics and Communication Engineering, Hindusthan Institute of Technology, Coimbatore – 641 032	ECE	Member from HiTECH
8	Dr.J.Jaya, Principal, Hindusthan College of Engineering and Technology, Coimbatore - 641032	ECE	Internal Academic Member
9	Mr.D.Deivasigamani Assistant Professor	EIE	Member& Department Autonomous Coordinator
10	Mr.D.Vijayanandh Assistant Professor	EIE	Member
11	Mr.R.Vinothkumar Assistant Professor	EIE	Member
12	Mr.M.Sudagar Assistant Professor	EIE	Member
13	Mrs.N.Kavitha Assistant Professor	EIE	Member
14	Mr.B.Chandran Team Leader(Production & Testing), Ojas Automation System, S.no 20, Opp Rathinam college, Pollachi main road, Coimbatore – 641021.	EIE( Batch 2017-21)	Alumni
15	Mr.S.Divakarvel P/o D.Kanishk 272, SMD complex Chinna kadai veethi st, Salem – 636001.	-	Parent Member
16	Ms.N.Sornalatha	IV EIE	Student Member
17	Mr.P.Duraiarasu	III EIE	Student Member
18	Mr.D.Kanishk	II EIE	Student Member

The following member could not attend the meeting due to other official duties.

Mr.A.Ezhilmaran (Representative from Industry)

The Chairman –BoS (Dr.B.Anand) welcomed all the members for the 9th Board of Studies meeting. Also chairman welcomed the new internal members in the BoS, Mr.D.Vijayanandh, AP/EIE and Mr.M.Sudagar, AP/EIE instead of Dr.R.Madhu sudhanan & Ms.P.Shakthipriya.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 05.02.2022 was approved.
- The feedback required on curriculum by the stakeholders was presented by the Chairman- BoS
- The Chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- The Chairman, BoS elaborated the Regulations 2022 Curriculum scheme to the members also he explained the new inclusion categories in the curriculum like Professional elective verticals, Minor Degree , Honours degree , SEC, AEC etc., with internal mark weightage system.

#### **Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- Dr.P.Karuppanan – Member form QS Rated Institution, appreciated the Curriculum scheme of 2022 regulations and accepted the R2019 subject revision.
- Dr.T.Aruldoss 'Albert Victoire – University nominee, suggested to incorporate advanced programming languages like C++ & java instead of C in the subject "Problem solving using C programming" (Sem -I)
- The Chairman, BoS said that, since this course is common to all Circuit Branches, this suggestion is put forth to Standing Committee / Academic Council for accommodation.
- Dr. V. Prasanna Moorthy – Subject Expert suggested that, in the subject "22XXXX - Fundamentals of Electrical, Electronics and Instrumentation engineering"(Sem-I) member recommended to revise the unit 1 & 2. Also suggested to change the following topics "Inverters and harmonics, single phase and three-phase balanced circuits, three phase loads"
- The Chairman, BoS and all members accepted to incorporate the above said modification.

- Moreover subject insisted to ensure adequate basic sensor domain subjects to be included for the students who opt for Control and Industrial Automation domain.
- The Chairman, BoS and all members accepted to incorporate the above in the curriculum.
- Dr. C. Govindaraju – Subject Expert, appreciated the new regulations 2022 scheme and subjects moreover he suggested to include application oriented topics and new era technologies in the higher semester syllabus.
- The Chairman, BoS accepted for the above suggestion.
- In 6<sup>th</sup> Sem, R-2019, “19EI6181– Industrial Safety Management” 20% syllabus revision made with relevant topics. (Forwarded to EEE Board of Studies. Since the subject is common to EEE & EIE)

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of I and II semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.

Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 11.30 A.M.



**f Chairman / Chairperson (BoS)**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi (R2019)

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

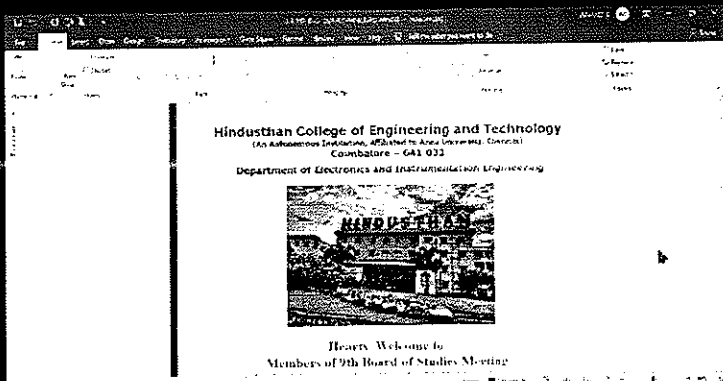


# Photographs of 9<sup>th</sup> BoS on 23.08.2022:

My Inbox (1271) - devasigamani... Meet - EIE - 9th BoS Meeting

meet.google.com/ncj-hvay-eug?pli=1

EIE HOD EIE is presenting



Hindusthan College of Engineering and Technology  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Cumbalure - 641 022  
Department of Electronics and Instrumentation Engineering

Hearty Welcome to  
Members of 9th Board of Studies Meeting

People

- EIE HOD EIE (Presenter)
- GOVINDARAJU C
- paul chamy
- Pkuru FACULTY
- Prasanna Moorthy
- Sudhagar M HICE
- T Anuloss Albert ...

10:34 | EIE - 9th BoS Meeting

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26°C 10:34 23-08-2022

My Inbox (1271) - devasigamani... Meet - EIE - 9th BoS Meeting

meet.google.com/ncj-hvay-eug?pli=1

D

D.VIJAYANANDH HICET STAFF EIE

Prasanna Moorthy

D.DEVASIGAMANI HICET STAFF EIE

Sudhagar M HICET EIE FACULTY

Pkuru FACULTY

9 others

You

11:16 | EIE - 9th BoS Meeting

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26°C 11:16 23-08-2022



**Department of Electronics and Instrumentation Engineering**

Date: 31.08.2022

**Action Taken Report on BoS**

The meeting of the 9<sup>th</sup> Board of Studies for the Department of Electronics and Instrumentation Engineering Undergraduate programme was conducted on 23.08.2022 at 10.30 a.m in Online Mode through Google Meet. (Meeting Link: [meet.google.com/hoj-hvay-eug](https://meet.google.com/hoj-hvay-eug))

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19EI6181- Industrial Safety Management (R2019)	Incorporated	20%

**(ii) Courses Introduced in R2022:**

S.No.	Regulation	Course code with name	Credits
1.	2022	22MA1101 - Matrices and Calculus	4
2.	2022	22CY1151- Chemistry For Circuit Engineering	3
3.	2022	22HE1151- English for Engineers	3
4.	2022	22CS1151- Problem Solving Using C Programming	3
5.	2022	22EI1201 - Fundamentals of Electrical, Electronics and Instrumentation Engineering	3
6.	2022	22HE1071- Universal Human Values -II	2
7.	2022	22HE1072- Entrepreneurship & Innovation	1
8.	2022	22MC1091/22MC1092- அறிவியல் தமிழ்/ Indian Constitution (Common to all branches)	0
9.	2022	22MA2104- Laplace Transforms and Differential Equations	4
10.	2022	22HE2151- Effective Technical Communication	3

11.	2022	22PH2101- Basics of Material Science	2
12.	2022	22CY2101- Environmental Studies	2
13.	2022	22PH2151- Physics For Circuit Engineering	3
14.	2022	22EI2251- Electronic Devices and Circuits	3
15.	2022	22ME2001- Engineering Practices	2
16.	2022	22HE2071- Design Thinking	2
17.	2022	22HE2072- Soft Skills – I	1
18.	2022	22MC2091/22MC2092- தமிழர் மரபு /Essence of Indian Traditional Knowledge	0
19.	2022	22MC2093- NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	0
20.	2022	22MA3102 - Complex Analysis and Transforms	4
21.	2022	22EI3201 - Electronic Instrumentation	3
22.	2022	22EE3202 - Electric Circuit Analysis	4
23.	2022	22EI3203 - Sensors and Transducers	3
24.	2022	22EI3251 - Digital Electronics	4
25.	2022	22EE3001 - Electric Circuits Laboratory	2
26.	2022	22EI3002 - Sensors and Transducers Laboratory	2
27.	2022	22HE3071 - Soft Skills -2 (Common to all)	1
28.	2022	22HE3072 - Fundamentals of JAVA Programming	2
29.	2022	22HE4101 - IPR and Start-ups	2
30.	2022	22EI4201 - Electrical Machines	3
31.	2022	22EE4202 - Integrated Circuits and Its Applications	4
32.	2022	22EI4203 - Industrial Instrumentation - I	3
33.	2022	22EI4204 - Analytical Instrumentation	3
34.	2022	22EI4251 - Electrical and Electronic Measurements	3
35.	2022	22EI4001 - Electrical Machines Laboratory	2
36.	2022	22EE4002 - Integrated Circuits Laboratory	2
37.	2022	22HE4071 - Soft Skills -3	1
38.	2022	22EI5201- Industrial Instrumentation -II	3

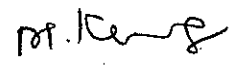
39.	2022	22EE5202 - Microprocessors and Microcontrollers	3
40.	2022	22EI5251- Control Systems	3
41.	2022	22EI5001 - Industrial Instrumentation Laboratory	1.5
42.	2022	22EE5002 - Microprocessors and Microcontrollers Laboratory	1.5
43.	2022	22EI5071 - Soft Skills -4/Foreign languages	1
44.	2022	22EI6201 - Process Control	3
45.	2022	22HE6101 - Professional Ethics	3
46.	2022	22EI6001 - Process Control Laboratory	2
47.	2022	22EI6002 - Virtual Instrumentation and Data Acquisition Laboratory	2
48.	2022	22HE6071 - Soft Skills - 5	2
49.	2022	22EI7201 - Programmable Logic Controller and Its Applications	3
50.	2022	22EI7251 - VLSI Design	3
51.	2022	22EI7001 - Industrial Automation Laboratory	1.5
52.	2022	22EI7002 - Instrumentation System Design Laboratory	1.5
53.	2022	22EI7701 - Internship	2
54.	2022	22EI8901- Project Work / Granted Patent	10
55.	2022	22EI5301 - Power plant Instrumentation	3
56.	2022	22EI5302 - Industrial Pollution Control	3
57.	2022	22EI5303 - Safety Instrumented Systems	3
58.	2022	22EI5304 - Bio-Medical Instrumentation	3
59.	2022	22EI5305 - Telemetry and Telecontrol	3
60.	2022	22EI5306 - Digital Image Processing	3
61.	2022	22EI5307 - Micro Electro Mechanical Systems	3
62.	2022	22EI5308 - Wireless Instrumentation	3
63.	2022	22EI5309 - Wearable Technology	3
64.	2022	22EI5310 - Embedded Systems	3
65.	2022	22EI5311- Communication Engineering	3
66.	2022	22EI5312 - Fundamentals of Nanotechnology and Nanoelectronics	3
67.	2022	22EI5313 - Plant Automation and IIOT	3

68.	2022	22EI5314 - PC based Instrumentation	3
69.	2022	22EI5315 - Introduction to Soft Computing	3
70.	2022	22EI5316 - Instrumentation and Control in paper Industries	3
71.	2022	22EI5317 -System Identification	3
72.	2022	22EI5318 - Industrial data Communication	3
73.	2022	22EI6301 - Piping and Instrumentation Diagrams	3
74.	2022	22EI6302 - Virtual Instrumentation	3
75.	2022	22EI6303 - Medical Robotics	3
76.	2022	22EI6304 - Diagnosis and Therapeutic Equipment	3
77.	2022	22EI6305 - Fiber optics and Laser Instrumentation	3
78.	2022	22EI6306 - Machine Monitoring and Control	3
79.	2022	22EI6307 - Digital Signal Processing	3
80.	2022	22EI6308 - Industrial Electronics	3
81.	2022	22EI6309 - Advanced Control Theory	3
82.	2022	22EI6310 - Robotics and Automation	3
83.	2022	22EI6311 - Project and Finance Management	3
84.	2022	22EI6312 - Instrumentation and Control in Petrochemical Industries	3
85.	2022	22EI7301 - Computer Control of Process	3
86.	2022	22EI7302 - Occupational Health and Safety Management	3
87.	2022	22EI7303 - Computer Vision and Image Processing	3
88.	2022	22EI7304 - Microcontroller Based System Design	3
89.	2022	22EI7305 - Introduction to DCS	3
90.	2022	22EI7306 - Instrumentation System design	3
91.	2022	22EI6401 - Introduction to Industrial Instrumentation and Control	3
92.	2022	22EI6402 - Graphical Programming using Virtual Instrumentation	3
93.	2022	22EI7401 - Smart Sensors for Engineering Applications	3
94.	2022	22EI5231 - Principles of Sensors	3
95.	2022	22EI6231 - Flexible and Wearable Sensors	3
96.	2022	22EI6232 - Data Acquisition Techniques	3
97.	2022	22EI7231 - Biomedical, Chemical and Automotive sensors	3
98.	2022	22EI7232 - Sensors for IoT Applications	3

99.	2022	22EI8231 - Intelligent Sensors and Instrumentation	3
100.	2022	22EI5203 - Instrumentation Practices in Industries	3
101.	2022	22EI6202 - Technological Trends in Automation	3
102.	2022	22EI6203 - Adaptive control system	3
103.	2022	22EI7203 - Advanced Process Control	3
104.	2022	22EI7204 - SCADA System and Its Applications	3
105.	2022	22EI8201 - Advanced Instrumentation Techniques	3

**(iii)General Recommendations:**

S.No.	Suggestion given by the BoS experts	Action taken
1	Members suggested to ensure advanced instrumentation and control subjects to be incorporated for the students who opt Honours Degree.	Considered
2	Members suggested to include application oriented topics and new era technologies and latest industrial developments while framing the syllabus.	Considered

  
 CHAIRMAN  
 BoS/EIE





**MINUTES OF BOARD OF STUDIES MEETING**

**Name of the Department: ELECTRONICS AND INSTRUMENTATION ENGINEERING**

Date: 21.02.2023

The meeting of 10th Board of Studies in the Department of Electronics and Instrumentation Engineering Undergraduate programme for the academic year 2022-23 was conducted on 20.02.2023 at 2.30 p.m in Online Mode through Google Meet.  
 (Meeting Link: [meet.google.com/ohy-niwn-vfu](https://meet.google.com/ohy-niwn-vfu))

The following members were present:

S.No.	Name of the Member	Position
1	Dr.B.Anand Professor and Head	BoS, Chairman
2	Dr.T.Aruldoss Albert Victoire, Associate Professor and Head i/c Department of Electrical and Electronics Engineering, Anna University Regional Campus Coimbatore, Coimbatore-641 046.	Anna University Nominee
3	Dr. V. Prasanna Moorthy, Professor, Department of Electronics and Instrumentation Engineering, Government College of Technology, Coimbatore – 641 013.	Subject Expert
4	Dr. C. Govindaraju, Associate Professor, Department of Electrical and Electronics Engineering, Government College of Engineering, Salem – 636 011.	Subject Expert
5	Mr.A.Ezhilmaran, Project Manager (Control & Automation), Axis Global Automation, 33,Near Manis Theatre, Kathir Avenue Street. Lakshmipuram, Coimbatore - 641 004.	Representative from Industry

6	Dr.P.Karuppanan, Professor, Department of Electronics and Communication Engineering, Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh – 211004.	Member from QS Rated Institution
7	Dr.B.Paulchamy, Professor & Head, Department of Electronics and Communication Engineering, Hindusthan Institute of Technology, Coimbatore – 641 032	Member from HiTECH
8	Dr.J.Jaya, Principal, Hindusthan College of Engineering and Technology, Coimbatore - 641032	Internal Academic Member
9	Mr.D.Deivasigamani Assistant Professor	Member& Department Autonomous Coordinator
10	Mr.D.Vijayanandh Assistant Professor	Member
11	Mr.R.Vinothkumar Assistant Professor	Member
12	Mr.M.Sudagar Assistant Professor	Member
13	Mrs.N.Kavitha Assistant Professor	Member
14	Mr.B.Chandran Team Leader(Production & Testing), Ojas Automation System, S.no 20, Opp Rathinam college, Pollachi main road, Coimbatore – 641021.	Alumni
15	Mr.S.Divakarvel P/o D.Kanishk 272, SMD complex Chinna kadai veethi st, Salem – 636001.	Parent Member
16	Ms.N.Sornalatha	Student Member
17	Mr.P.Duraiarasu	Student Member
18	Mr.D.Kanishk	Student Member

The Chairman-BoS (Dr.B.Anand) welcomed all the members for the 10th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 22.08.2022 was approved.
- The feedback collected on curriculum by the stakeholders was presented by the Chairman
- The Chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- Chairman, BoS has elaborated the Regulations 2022 Curriculum scheme, newly introduced courses, Minor degree, Honours degree and Honours degree vertical subjects to the members and also he explained the NPTEL credit transfer system.
- The following NPTEL course "Chemical Process Instrumentation" are found to be equivalent to 1 course of the Professional Elective-IV list offered during VI semester, R2019 using Credit transfer for NPTEL course with credit 3.
- The curriculum and syllabi of Second semester subject alone is discussed for 2022 regulation

#### **Recommendations by BoS members (Subject Related)**

The following recommendations put forth by the BoS Members,

- Dr. C. Govindaraju – Subject Expert, recommended to include additional subjects in the Hours degree verticals (in spite of 6 courses) so that, students can get deep knowledge on the particular stream.
- Chairman accepted and said, the suggestion is forwarded to standing committee for approval.
- Dr.T.Aruldoss Albert Victoire – University nominee, appreciated the regulations 2022 scheme and subjects and suggested to revise the units 1 & 2 "22EI2251- Electronic Devices and Circuits" (R 2022 - Sem-II), since the configurations of BJT can be reduced.
- Chairman accepted to incorporate the above modifications.

- Chairman conveyed that, the following course can be considered as NPTEL credit transfer course in R2019 - PE-IV (for the students admitted in 2020-21 onwards)

i) Chemical Process Instrumentation

- All members are accepted for the above inclusion.
- Dr.T.Aruldoss Albert Victoire – University nominee, suggested to include 1 or 2 units as basic fundamentals like Introduction to IoT, IoT basics, sensor fundamentals etc. in syllabus framing.
- Chairman agreed to incorporate the above suggestions.
- Dr.P.Karuppanan – Member form QS Rated Institution, appreciated the R2022 Curriculum, Honours Vertical subjects and NPTEL credit transfer system.
- Dr. V. Prasanna Moorthy – Subject Expert, appreciated the Minor , Honours degree schemes and NPTEL course.
- Industry Expert (Mr.V.Ezhilmaran) appreciated the R2022 curriculum and suggested to include more industry oriented and recent industrial developments in the syllabus.
- Chairman agreed to incorporate the above suggestions for syllabus framing.
- In 6<sup>th</sup> Sem, R-2019 – PE-II, "19EI6303– Industrial Data Communication" members suggested to include HART, ARCNET, Devicenet in Unit 1 & 2.
- All members are accepted to incorporate the above modification.
- In 6<sup>th</sup> Sem, R-2019, "19EI6251– Embedded Systems" 20% syllabus revision made with relevant topics. (Forwarded to EEE Board of Studies. Since the subject is common to EEE & EIE)
- Members suggested the following course can be given as a Value Added Course in EVEN semester.

(i) LabVIEW Programming

- Japanese language course (N4 & N5) is offered to the students who are interested to learn Japanese language and the outcome of the Training shall help students to fetch better placement offers.
- Skill Development courses introduced for member's approval.
  - 19 LSZ401 –General Studies for Competitive Examinations
  - 19 LSZ402 – Human Rights, Women's Rights and Gender Equality
  - 19 LSZ403 – Indian Ethos and Human Values
  - 19 LSZ404 – Indian Constitution and Political System
  - 19 LSZ405 – Yoga for Human Excellence

- Employability Enhancement courses introduced for member's approval.
  - 22HE1071 – Universal Human Values
  - 22HE1072 – Entrepreneurship & Innovation
  - 22HE2071 – Design Thinking
  - 22HE2072 – Soft Skills – I

- In general, the members suggested to include Recent editions of Text and Reference books in the syllabus also Course objectives and Course outcomes should be mapped with course contents.

- The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of II semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.

**1. Percentage of Programmes where syllabus revision was carried out in BoS:**

- Semester VI: 19EI6303– Industrial Data Communication (R 2019): Credit 3 (20 % of Syllabus revisions made)
- Semester VI: 19EI6251-Embedded Systems (R 2019): Credit 3 (20 % of Syllabus revisions made)

**2. Introduce Course:**

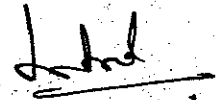
Following new course is introduced(R2019) in PE-IV for the students admitted in the year 2020-21 onwards(NPTEL credit transfer course)

- Chemical Process Instrumentation, Credit 3

Following new courses are introduced(R2022) for the students admitted in the year 2022-23 onwards

- Semester II: 22EI2251 – Electronic Devices and Circuits: Credit 3
- Semester III: 22EE3001 - Electric Circuits Laboratory : Credit 2
- Semester III: 22EI3002 - Sensors and Transducers Laboratory: Credit 2
- Semester IV: 22EI4001 - Electrical Machines Laboratory: Credit 2
- Semester IV: 22EI4002 - Integrated Circuits Laboratory: Credit 2

The meeting came to an end at 3.30 p.m with vote of thanks.



**Chairman**

**(Board of studies)**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File



# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 25. 02. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: ELECTRONICS AND INSTRUMENTATION ENGINEERING

The meeting of 10th board of studies of Regulation 2019& Regulation 2022 for the Department of Electronics and Instrumentation Engineering was conducted on 20.02.2023 at 2.30 p.m in Online Mode through Google Meet.

### (I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	19EI6251-Embedded Systems	Incorporated	20%
2	19EI6181-Industrial Safety Management	Incorporated	20%
3	19EI6303– Industrial Data Communication	Modified	20%

Overall Percentage of revision made in the BoS: 21%

### (II) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1.	2022	22EI2251 – Electronic Devices and Circuits	3
2.	2019	19EI8306 - Chemical Process Instrumentation(NPTEL)	3

### (III) Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ்மரபு / Essence of Indian Traditional Knowledge.
2.	22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)
3.	19EE6701-Internship Training
4.	19EE6071-Soft Skills - II
5.	19HE6072-Intellectual Property Rights (IPR)





**(IV) Non-credit Mandatory Courses**

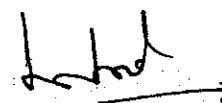
S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ்மரபு / Essence of Indian Traditional Knowledge.
2.	21 MC4191-Essence of Indian tradition knowledge/Value Education
3.	21HE4072- Career Guidance Level – IV Personality, Aptitude and Career Development
4.	21HE4073- Ideation Skills

**(V) Additional Credit Courses Introduced:**

S.No.	Course Code with Name
1.	22HE2071 - Design Thinking
2.	22HE2072 - Soft Skills -1

**(VI). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	Recommended to include additional subjects in the Hours degree verticals(in spite of 6 courses) so that, students can get deep knowledge on the particular stream.	Considered
2.	Suggested to include Recent editions of Text and Reference books in the syllabus also Course objectives and Course outcomes should be mapped with course contents.	Considered



**Chairman  
(Board of Studies)**



**Academic Year: 2022-2023**

**Minutes of the Board of Studies Meeting**

The Tenth Board of Studies meeting of the Department of Information Technology Undergraduate Programme was conducted on 23.08.2022 in the Hybrid Mode (Google Meet: <https://meet.google.com/jce-xrty-unu>).

The following members were present:

S. No.	Name of the Person	Department	Position
1	Dr Jasmine Selvakumari Jeya I	Professor and Head Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Chairman
2	Dr Thulasimani K	Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007	University Nominee
3	Dr.P.Sakthivel	Professor and Dean University College of Engineering Anna University, Kancheepuram-631552	Subject Expert
4	Dr.S.Geetha	Professor and Associate Dean, School of Computer Science and Engineering, VIT University, Chennai Campus, Chennai-600127	Subject Expert
5	Mr.R.V.Vinay	Senior Project Manager Robert Bosch Engineering and Business Solutions India Ltd Bangalore	Industry Expert
6	Mr.R.Gokul	Senior Automation Developer Cognizant Technology Solutions Coimbatore-641035	Alumni
7	Dr.E.S.Gopi	Associate professor Department of Electronics and Communication Engineering National Institute of Technology Tiruchirappalli -620015	Member from QIS rated Institution
8	Mr.B.Manikandan	Associate Professor Department of Information Technology Hindusthan Institute of Technology Coimbatore-641032	Member from sister concern



9	Dr.Beulah David	Associate Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Autonomous Coordinator & BoS Member
10	Mr.M.Ganesan	Assistant Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
11	Ms.M.Indirani	Assistant Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
12	Ms.N.Yamuna	Assistant Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
13	Ms.C. Varsha	Student (IV Year-IT) Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
14	Mr.C.Babiyon Clement	Student (III Year-IT) Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
15	Mr.Irshad M Y	Student (II Year-IT) Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
16	Mr.A.Chandrasekar	No.3,Rayappa layout, Sanganoor Main Road, Ganapathy,Coimbatore-641006	Parent Member

**Dr. I. Jasmine Selvakumari Jeya**, Chairman, Board of Studies, welcomed all the members for the Tenth Board of Studies meeting and thanked the Management, Chief Executive Officer, and Dean for giving permission to conduct this meeting. The Chairman of BoS presented and discussed about New Regulation 2022.

The Chairman presented the outline of the changes that has to be incorporated in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC). Chairman also highlighted the significance of including courses such as employability enhancement courses, life skill course, soft skill course, design thinking and IPR related courses in the curriculum which are lined up to support the industry needs and emphasized the following points.

#### 1. Scheme of Regulation 2022-2023



2. Courses for the Programme.
3. Syllabus for the courses of the first semester alone
4. Syllabus passed in the S&H board to be presented for the consent.
5. New regulation 2022 Curriculum and scheme and credit distribution

Also, the following points were discussed.

- New regulation 2022 Curriculum and scheme and credit distribution was submitted to the panel for approval and it was approved.
- Panel members discussed about the introduction of Professional Core Major and Professional Core Minor in new Regulation 2022.

*1. For 2019-2023 batch students, the following courses has been introduced*

- In Semester VIII – As per Anna University recommendation, 19IT8001 - Professional Readiness for Innovation , Employability and Entrepreneurship course is introduced with the weightage of 3 Credit

*2. For 2020-2024 batch students, the following courses has been introduced*

- In Semester V – 19IT5357- Introduction to Design Thinking course is introduced as Theory with Lab Component as per the suggestions from IBM Partner

*3. For 2021-2025 batch students, the following courses has been introduced*

- In Semester III – 21IT3252 - Data Visualization course is introduced as Theory with Lab Component as per the suggestions from IBM Partner

*4. The following Discussion on Curriculum and Syllabus took place:*

- The Chairman of BoS introduced the Semester 1 syllabus, curriculum of semester 1 to 8 for the regulation 2022 and IBM Nalaiya Thiran skilling program.
- The Chairman of BoS presented the syllabus for theory courses Matrices and Calculus, Engineering Drawing, Universal Human Values.
- The Chairman of BoS presented the syllabus for theory with lab component courses i.e. Chemistry for Circuit Engineering, Engineering Drawing, English for Engineers – I, Problem Solving Using C Programming, Python programming and Practices and also presented employment enhancement course - Entrepreneurship and Innovation.

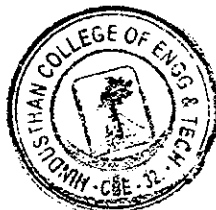


5. *The following suggestions were given by Board of Studies members after discussion:*

- The Experts of BoS suggested three hours of theory and two hours of lab for Problem Solving Using C Programming and also instructed to change total hours as sixty hours and the title of Fifth unit as File handling.
- Experts of BoS advised to move foundation of data science course to semester III as it needs python programming as prerequisite.
- Subject Experts of BoS advised to include Mongo Db, Full stack development courses for the students after the fourth semester.
- Experts of BoS suggested to include testing automation such as selenium with Java, selenium with python in the software testing course.
- BoS Expert also advised to revise rubrics for Mini project and suggested to provide 40% of marks for hardware and software implementation of the project, remaining 60% of marks for teamwork, application based project on social relevance.

**The following resolutions were made in the Board of Studies meeting:**

- In almost all the courses, changes has been made as per the Local, Regional, National and Global needs.
- The curriculum and syllabus of Regulation 2022 for the I semester subjects was passed by Science and Humanities, Computer Science and Engineering, Information Technology, Mechanical Engineering, Electrical and Electronics Engineering boards and permitted to move on Academic Council by the BoS members of Information technology for the students admitted during the academic year 2022-2023 and onwards.
- The curriculum and syllabus of Regulation 2022 for the II semester subjects was passed by Science and Humanities, Information Technology, Mechanical Engineering, Electrical and Electronics Engineering boards and permitted to move on Academic Council by the BoS members of Information technology for the students admitted during academic year 2022-2023 and onwards.
- The syllabi of III & IV semester of the UG Programmes for the students admitted during the academic year 2021 - 2022 and onwards was passed and permitted to move on Academic Council.
- The syllabi of V & VI semester of the UG Programmes for the students admitted during the academic year 2020 - 2021 and onwards was passed and permitted to move on Academic Council.



- The syllabi of VII & VIII semester of the UG Programmes for the students admitted during the academic year 2019 - 2020 and onwards was passed and permitted to move on Academic Council.

**Percentage of Programmes where syllabus revision was carried out in BoS:**

- a) Semester: V, Course Code: 19IT5351R - Internet and Web Technology, Credits: 3  
(Percentage of revision was done– 20%) done based on the feedback of stack holders
  - b) Semester: VII, Course Code: 19IT7002 - Data Analytics Laboratory , Credits: 3  
(Percentage of revision was done– 20%) done based on the feedback of stack holders
  - c) Semester: VII, Course Code: 19IT8001 - Professional Readiness for Innovation, Employability and Entrepreneurship course, Credits: 3 (Percentage of revision was done– 100%)
  - d) Semester: V, Course Code: 19IT5357- Introduction to Design Thinking course (Theory with Lab component course), Credits: 3 (Percentage of revision was done– 100%)
  - e) Semester: V, Course Code: 21IT3252 - Data Visualization course (Theory with Lab component course), Credits: 3 (Percentage of revision was done– 100%)
- The Chairman assured that the Suggestions given by the Board of Studies members will be incorporated in Regulation 2019(Revised) and also conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.
  - The Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses.
  - The Board of studies meeting ended at 12.45 PM with vote of thanks.

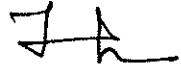
**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



  
**Chairman - BoS**  
**Chairman - BoS**  
**IT - HiCET**





## Department of Information Technology

Date: 23.08.2022

### Action Taken Report

The meeting of Tenth Board of Studies of Regulation 2022 for the Department of Information Technology Undergraduate programme was conducted on 23.08.2022 at 11.30 A.M on HYBRID mode through Google Meet.

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19IT5351 - Internet and Web Technology	Incorporated	20%
2.	19IT7002 - Data Analytics Laboratory	Incorporated	20%
3.	19IT8001 - Professional Readiness for Innovation , Employability and Entrepreneurship course	Incorporated	100%
4.	19IT5357- Introduction to Design Thinking	Incorporated	100%
5.	21IT3252 - Data Visualization	Incorporated	100%

**Overall Percentage of syllabus revision made in the BoS : 20.83 %**

**(ii) Courses Introduced under Regulation 2019:**

S.No.	Regulation	Course code with name	Credits
1	2019R	19IT8001 - Professional Readiness for Innovation , Employability and Entrepreneurship course	3
2	2019R	21IT3252 - Data Visualization	3
3	2019R	19IT5357- Introduction to Design Thinking	3
4	2022R	22IT2251 – Python Programming and Practices	3



**(ii) Courses Introduced under Regulation 2022:**

S No	Regulation	Course Code with Name		Credits
1	2022	22MA1101	Matrices and Calculus	4
2	2022	22ME1201	Engineering Drawing	3
3	2022	22HE1151	English for Engineers	3
4	2022	22CY1151	Chemistry for Circuit Engineers	3
5	2022	22CS1151	Problem solving using C programming	3
6	2022	22HE1071	Universal Human Values	2
7	2022	22HE1072	Entrepreneurship & Innovation	1
8	2022	22MC1091/ 22MC1092	அறிவியல் தமிழ்/ Indian Constitution	0
9	2022	22MA2105	Linear Algebra & Differential Equations	4
10	2022	22PH2101	Basics of Material Science	2
11	2022	22CY2101	Environmental Science	2
12	2022	22HE2151	Effective Technical Communication	3
13	2022	22PH2151	Physics for Circuit Engineering	3
14	2022	22IT2251	Python programming and Practices	3
15	2022	22ME2001	Engineering Practices	2
16	2022	22HE2071	Design Thinking	2
17	2022	22HE2072	Soft Skills -1	1
18	2022	22MC2091/ 22MC2092	தமிழ்மரபு / Essence of Indian Traditional Knowledge.	0
19	2022	22MC2093	NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	
20	2022	22MA3101	Applied Statistics and Queuing Theory	4
21	2022	22IT3201	Data Structures	4
22	2022	22IT3202	Computer Architecture	4
23	2022	22IT3203	Digital Principles and System Design	3

24	2022	22IT3251	Object Oriented Programming Using C++	3
25	2022	22IT3001	Data Structures Laboratory	2
26	2022	22IT3002	Digital Principles and System Design Laboratory	2
27	2022	22HE3071	Soft Skills -2 (Common)	1
28	2022	22IT3003	Object Oriented Programming Laboratory	2
29	2022	22HE4101	IPR and Start-ups	2
30	2022	22IT4201	Design and Analysis of Algorithms	3
31	2022	22IT4202	Foundation of Data Science	3
32	2022	22IT4203	Database Management System	4
33	2022	22IT4251	Java Programming	3
34	2022	22IT4252	Software Engineering	3
35	2022	22IT4001	Oracle Laboratory	2
36	2022	22IT4002	Data Science Laboratory	2
37	2022	22HE4071	Soft Skills -3	1
38	2022	22IT5201	Introduction to Artificial Intelligence & Machine Learning	4
39	2022	22IT5202	Computer Networks	3
40	2022	22IT5251	Operating Systems	3
41	2022	22IT5001	Artificial Intelligence & Machine Learning Laboratory	2
42	2022	22HE5071	Soft Skills -4/Foreign languages	1
43	2022	22IT6201	Web Application	3
44	2022	22HE6101	Professional Ethics	3
45	2022	22IT6001	Web Application Laboratory	2
46	2022	22IT6002	Software Testing Laboratory	2
47	2022	22HE6071	Soft Skills - 5	2
48	2022	22IT7201	Cryptography and Network Security	3
49	2022	22IT7202	IoT and its application	4



50	2022	22IT7001	IoT Laboratory	2
51	2022	22MT7701	Internship - II*	2
52	2022	22MT8901	Project Work/Granted Patent	10
53	2022	22IT6451	Data Science and Analytics	4
54	2022	22IT7401	Disaster Management	3
55	2022	22IT5301	Exploratory Data Analysis	3
56	2022	22IT5302	Recommender Systems	3
57	2022	22IT5303	Computer Vision	3
58	2022	22IT6301	Text and Speech Analysis	3
59	2022	22IT6302	Big Data Analytics	3
60	2022	22IT7301	Image and video analytics	3
61	2022	22IT5304	Cloud Computing	3
62	2022	22IT5305	App Development	3
63	2022	22IT5306	Cloud Services Management	3
64	2022	22IT6303	Dev-ops	3
65	2022	22IT6304	Software Testing and Automation	3
66	2022	22IT7302	Web Application Security	3
67	2022	22IT5307	Security and Privacy in Cloud	3
68	2022	22IT5308	Virtualization	3
69	2022	22IT5309	Stream Processing	3
70	2022	22IT6305	Data Warehousing	3
71	2022	22IT6306	Storage Technologies	3
72	2022	22IT7303	Software Defined Networks	3
73	2022	22IT5310	Ethical Hacking	3
74	2022	22IT5311	Digital and Mobile Forensics	3
75	2022	22IT5312	Social Network Security	3
76	2022	22IT6307	Modern Cryptography	3
77	2022	22IT6308	Engineering Secure software systems	3



78	2022	22IT7304	Network and Information Security	3
79	2022	22IT5313	Multimedia Data Compression and Storage	3
80	2022	22IT5314	Multimedia and Animation	3
81	2022	22IT5315	Video Creation and Editing	3
82	2022	22IT6309	UI and UX Design	3
83	2022	22IT6310	Digital marketing	3
84	2022	22IT7305	Visual Effects	3
85	2022	22IT5316	Augmented Reality	3
86	2022	22IT5317	Robotic Process Automation	3
87	2022	22IT5318	Neural Networks and Deep Learning	3
88	2022	22IT6311	Cyber security	3
89	2022	22IT6312	Quantum Computing	3
90	2022	22IT7306	Cryptocurrency and Blockchain Technologies	3
91	2022	22IT5231	Introduction to Database System	3
92	2022	22IT6231	Fundamentals of Data Science	3
93	2022	22IT6232	Artificial Intelligence and Expert Systems	3
94	2022	22IT7231	Data Exploration and Visualization	3
95	2022	22IT7232	Business Intelligence	3
96	2022	22IT8231	Cyber Security	3
97	2022	22IT5203	Introduction to Industry 4.0 and Industrial Internet of Things	3
98	2022	22IT6202	Reverse Engineering	3
99	2022	22IT6203	Block Chain Technologies	3
100	2022	22IT7203	Edge Computing	3
101	2022	22IT7204	Deep Learning for Computer Vision	3
102	2022	22IT8201	DevOps Foundations	3
103	2022	22IT2252	Relational Database Management System	3



104	2022	22IT3252	Data Visualization	3
105	2022	22IT4204	Design Thinking	3
106	2022	22IT4003	Design Thinking Laboratory	2
107	2022	22IT5252	Predictive Modeling	3
108	2022	22IT6313	Business Intelligence	3
109	2022	22IT6314	Big Data and Security	3
110	2022	22IT7205	Data Science	4
111	2022	22IT7002	Data Science Laboratory	2

**General Recommendations:**

S. No	Suggestions given by BoS experts	Action taken
1.	The Experts of BoS suggested three hours of theory and two hours of lab for Problem Solving Using C Programming and also instructed to change total hours as sixty hours and the title of Fifth unit as File handling.	Considered
2.	Experts of BoS advised to move foundation of data science course to semester III as it needs python programming as prerequisite.	Incorporated
3.	BoS experts advised to include Mongo Db, Full stack development courses for the students after the fourth semester.	Incorporated
4.	Panel Members Suggested to include testing automation such as selenium with Java, selenium with python in the software testing course.	Incorporated
5.	Advised to revise rubrics for Mini project and suggested to provide 40% of marks for hardware and software implementation of the project, remaining 60% of marks for team work, application based project on social relevance.	Incorporated



*Jh*  
**Chairman - BOS IT**  
**Chairman - BoS**  
**IT - HICET**



# **Hindusthan College of Engineering and Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

## **DEPARTMENT OF INFORMATION TECHNOLOGY**

### **MINUTES OF BOARD OF STUDIES MEETING**

Name of the Department: INFORMATION TECHNOLOGY

Date: 18.02.2023

The Eleventh Board of Studies meeting of regulation 2022 for the academic year 2022 -2023 Even Semester was conducted on 18.02.2023 at 12.00p.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

The following members were present:

S. No.	Name of the Member	Position
1	<b>Dr Jasmine Selvakumari Jeya I</b> Professor and Head Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Chairman
2	<b>Dr Thulasimani K</b> Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007	University Nominee
3	<b>Dr. P. Sakthivel</b> Professor and Dean University College of Engineering Anna University, Kancheepuram-631552	Subject Expert
4	<b>Dr. S. Geetha</b> Professor and Associate Dean, School of Computer Science and Engineering, VIT University, Chennai Campus, Chennai-600127	Subject Expert
5	<b>Mr. R. V. Vinay</b> Senior Project Manager Robert Bosch Engineering and Business Solutions India Ltd Bangalore	Industry Expert
6	<b>Ms. Priya B Sathish</b> Industry Expert Director Technical IBM India	Industry Expert



7	<b>Mr. R. Gokul</b> Senior Automation Developer Cognizant Technology Solutions Coimbatore-641035	Alumni
8	<b>Dr. E. S. Gopi</b> Associate professor Department of Electronics and Communication Engineering National Institute of Technology Tiruchirappalli -620015	Member from QIS rated Institution
9	<b>Mr. B. Manikandan</b> Associate Professor Department of Information Technology Hindusthan Institute of Technology Coimbatore-641032	Member from sister concern
10	<b>Dr. Beaulah David</b> Associate Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Autonomous Coordinator &BoS Member
11	<b>Mr. M. Ganesan</b> Assistant Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
12	<b>Ms. M. Indirani</b> Assistant Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
13	<b>Ms. N. Yamuna</b> Assistant Professor Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
14	<b>Ms. C. Varsha</b> Student (IV Year-IT) Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
15	<b>Mr. C. Babiyon Clement</b> Student (III Year-IT) Department of Information Technology Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
16	<b>Mr. Irshad M Y</b> Student (II Year-IT) Department of Information Technology	Student Member





	Hindusthan College of Engineering and Technology, Coimbatore-641032	
17	<b>Mr. A. Chandrasekar</b> Parent Member Software Consultant, C.S. Infolines, No.3, Rayappa layout, Sanganoor Main Road, Ganapathy, Coimbatore-641006	Parent Member

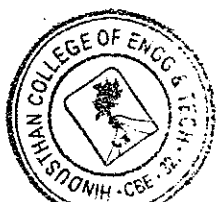
- Dr. I. Jasmine Selvakumari Jeya, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the eleventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **23.08.2022**, was approved.
- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.
- The Chairman also mentioned the revision of R2019 Syllabus, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.
  1. Scheme of Regulation 2022-2023
  2. Courses for the Programme.
  3. Syllabus for the courses of the second semester alone
  4. Syllabus passed in the S&H board to be presented for the consent.
  5. New regulation 2022 Curriculum and scheme and credit distribution

**The following are the recommendations put forth by the BoS members,**

1. In “21IT4203R – Principles of Operating System”, the Board of Studies subject expert Dr. K. Thulasimani suggested including one-hour time extra for lab so that timing would be sufficient for the students to complete the experiments properly.



2. In “21IT4203R – Principles of Operating System”, the Board of Studies subject expert Dr. S. Geetha recommended to include more process control and some advanced automation techniques so that it would be benefitted by students for their job role during the placements.
3. NPTEL course “Cloud Computing” is introduced as new course for the fast track students instead of Eighth semester professional elective course and the course title/code is “19IT8313 – Cloud Computing”
4. AICTE Leadership in Teaching Excellence (LITE) course is introduced as professional elective for the sixth, seventh and eighth semester for the third and final year students with three credits which inherits 50 internal marks from AICTE LITE and 50 marks as external practical exam. Newly introduced LITE courses are
  - 19IT6308 - Web Development – I
  - 19IT7307 - Web Development – II
  - 19IT8314 - Web Development - III
5. 19IT6003 - Project Based Learning is introduced with 51 project titles instead of 19IT6002 - Hardware and Software Clinic with 100% revision and this mini project course enables the students to upgrade themselves in industrial oriented technologies
6. Japanese language course (N4 & N5) is offered to the students who are interested to learn Japanese language and the outcome of the Training shall help students to fetch better placement offers.
7. Value added course Infosys Spring Board is introduced in every semester, which includes various courses for the students to enhance their technical skills.
8. Skill Development courses introduced for member’s approval.
  - 21LSZ401 – General Studies for Competitive Examinations
  - 21LSZ402 – Human Rights, Women’s Rights and Gender Equality
  - 21LSZ403 – Indian Ethos and Human Values
  - 21LSZ404 – Indian Constitution and Political System
  - 21LSZ405 – Yoga for Human Excellence
9. Employability courses introduced for member’s approval.
  - 22HE1071 – Universal Human Values
  - 22HE1072 – Entrepreneurship & Innovation
  - 22HE2071 – Design Thinking
  - 22HE2072 – Soft Skills - I



### **General Recommendations:**

1. BOS subject expert Mr. Gopi appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses.

### **The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabus for the VI semester was passed by the Information Technology board and permitted to move on Academic Council by the BoS members of Chemical Engineering for the students admitted during the academic year 2022 - 2023 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the IV semester Courses of B. Tech Information Technology program for the students admitted during the academic year 2022 - 2023 and onwards was suggested to move on to Academic Council.
- The syllabus for Semester – II and if any revision and updation under regulation 2019 passed by the Board of Science and Humanities, Mechanical Engineering and Electrical and Electronics Engineering were permitted to move on Academic Council by the members of BoS members of Information technology
- Online certificate courses under NASSCOM undergone by the students are recommended for the additional credit and were suggested to move on to Academic Council.
- As discussed about the importance of online courses in the last Pre- BoS/ DAC meeting, students have completed ICT Learnathon online certificate course during the month of July 2021. BOS Members recommended the same and was suggested to move on to Academic Council.

The meeting ended with thanks to the Chair at 1.30 PM.

  
Chairman

(Board of studies)  
**Chairman - BoS**  
**IT - HiCET**

### **Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

### **Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File







## **Hindusthan College of Engineering And Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 23. 02. 2023

### **ACTION TAKEN REPORT ON BoS**

Name of the Department: INFORMATION TECHNOLOGY

The meeting of Eleventh board of studies of Regulation 2019 & Regulation 2022 for the Department of Information Technology B.Tech Programme was conducted on 18.02.2023 at 12.00 pm, in Hybrid Mode, Hindusthan College of Engineering and Technology.

#### **(I) Syllabus Revision for the Regulations 2019**

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	19IT6003 - Project Based Learning	Introduced	100%
2	21IT4202 - Advanced Database Management System	Modified	20%
3	21IT4203 - Principles of Operating Systems	Modified	75%
4	19IT7201R - Introduction to Distributed and Cloud Computing	Incorporated	20%
5	19IT8313 - Cloud Computing (NPTEL)	Introduced	100%
6	19IT6308 - Web Development - I	Introduced	100%
7	19IT7307 - Web Development - II	Introduced	100%
8	19IT8314 - Web Development - III	Introduced	100%
9	21IT4252 - Design Thinking (IBM)	Introduced	100%
10	19CS6306 - Development of Machine Learning Models (IBM)	Introduced	100%
11	19CS6253 - Predictive Modeling (IBM)	Introduced	100%

**Overall Percentage of revision made in the BoS: 17 %**

#### **(II) New Course Introduced:**

S. No	Regulation	Course Code with Name	Credits
1	2019	19IT6003 - Project Based Learning	1.5
2	2019	19IT8313 - Cloud Computing (NPTEL)	3
3	2019	19IT6308 - Web Development - I	3
4	2019	19IT7307 - Web Development - II	3
5	2019	19IT8314 - Web Development - III	3



6	2019	21IT4252 - Design Thinking (IBM)	4
7	2019	19CS6306 - Development of Machine Learning Models (IBM)	4
8	2019	19CS6253 - Predictive Modeling (IBM)	3
9	2022	22MA2103 - Differential Equations And Linear Algebra	4
10	2022	22PH2101 - Basics of Material Science	2
11	2022	22HE2151 - Effective Technical Communication	3
12	2022	22PH2151 - Physics for Circuit Engineering	3
13	2022	22IT2251/ 22IT2252 - Python programming and Practices/ Relational Database Management System	3
14	2022	22IT2253 - Dynamic Web Design	2
15	2022	22ME2001 - Engineering Practices	2

### (III) Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழர் மரபு / Essence of Indian Traditional Knowledge.
2.	22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)

### (IV) Non-credit Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழர் மரபு / Essence of Indian Traditional Knowledge.

### (V) Additional Credit Courses Introduced:

S.No.	Course Code with Name
1.	22HE2071 - Design Thinking
2.	22HE2072 - Soft Skills -I

(VI) The following recommendations given by stakeholders are considered and incorporated.


- In “21IT4203R – Principles of Operating System”, the Board of Studies subject expert Dr. K. Thulasimani suggested including one-hour time extra for lab so that timing would be sufficient for the students to complete the experiments properly.

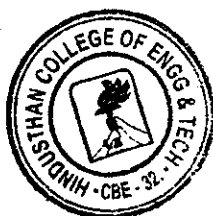


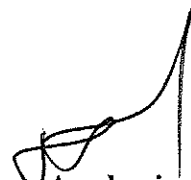
- In “2IIT4203R – Principles of Operating System”, the Board of Studies subject expert Dr. S. Geetha recommended to include more process control and some advanced automation techniques so that it would be benefitted by students for their job role during the placements.

**(VII). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	BOS subject expert Mr. Gopi appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses.	Considered

  
 Chairman  
 (Board of Studies)  
**Chairman - BoS**  
**IT - HiCET**



  
 Dean Academics  
**Dean (Academics)**  
**HiCET**

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*Hindusthan College of Engineering And Technology*  
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Coimbatore – 641 032

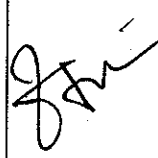
**DEPARTMENT OF BIOMEDICAL ENGINEERING**

**Minutes of BoS Meeting**

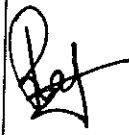
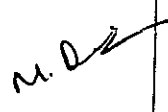




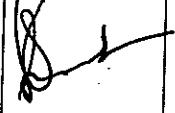
**Name of the Department: Biomedical Engineering 16.08.2022**

The Seventh Board of Studies meeting of B.E Biomedical Engineering- Regulation 2022 for the Academic Year 2022-2023 (Odd Semester) was held at office board room in hybrid mode on 16.08.2022 at 11:00 AM and the Google Meet Link is <https://meet.google.com/yzb-nhwt-rhf>.

The following members were present

Sl.No.	Name Of The Person	Department	Position.	Signature
1	Dr.S.Saravana Sundaram, Professor and Head, Department of Biomedical Engineering, HICET	Department of Biomedical Engineering	Chairman	
2	Dr. S.J. Thiruvengadam Professor Thiyagarajar College of Engineering ,Madurai-625015 sjtece@tce.edu	Department of Electronics and Communication Engineering	University Nominee	Online
3	DrVidhyaPriya Prof & Head Department of Biomedical	Department of Biomedical Engineering	Subject Expert 1	Online

	Engineering,PSG College of Technology,Coimbatore. rvp.bme@psgtech.ac.in			
4	Dr.P.Manimegalai,M.E.,Ph.d. Associate Professor Department of Biomedical Engineering,Karunya Institute of Technology and Science,Coimbatore, manimegalaip@karunya.edu	Department of Biomedical Engineering	Subject Expert 2	Online
5	A.Thirugnanam Associate Professor and Head, NIT Rourkela, Odisha,Department of Biotechnology and Medical Engineering, <a href="mailto:thirugnanam.a@nitrkl.ac.in">thirugnanam.a@nitrkl.ac.in</a>	Department of Biotechnology and Medical Engineering,	Member from QS rated institution	Online
6	Dr.N.Nandakumar, Industry Expert Prime Medical systems	Prime Medical systems	Industry Expert	<i>Nandha Kumar</i>
7	Ms.Manoranjitham	CTS trainee Coimbatore	Alumni	Online
8	Dr.T.Murugeswari, Assoc Professor/BME	Department of Biomedical Engineering	Internal Member	<i>[Signature]</i>
9	Dr.M.Ganga, Assoc Professor/BME	Department of Biomedical Engineering	Internal Member	<i>[Signature]</i>
10	Mrs.S. Shobha	Department of	Internal Member	<i>[Signature]</i>

	Christila, AP/BME	Biomedical Engineering		
11	Ms.P.Raja Rajeswari Chandni, AP/BME	Department of Biomedical Engineering	Internal Member	
12	Mrs M Deeparani, AP/BME	Department of Biomedical Engineering	Internal Member	
13	Mr.P.Radha Krishnan, AP/BME	Department of Biomedical Engineering	Internal Member	
14	Mr. K. Gobinath, AP/BME	Department of Biomedical Engineering	Internal Member	
15	Mr.B.Sonaimuthi	Department of Biomedical Engineering	Student-II BME	
16	Ms.M.Bavithra	Department of Biomedical Engineering	Student-III BME	
17	Mr.S.Siddharth	Department of Biomedical Engineering	Student-IV BME	

- Due to his/ her preoccupied schedule NIL not attend the meeting.
- The chairman of the BoS, **Dr. S. Saravana Sundaram** welcomed all the dignitaries for the meeting. **Chairman / Chairperson** introduced the BoS members.
- Followed by **Chairman / Chairperson** presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during **07.07.2021** was approved.
- The feedback form received on curriculum by the stakeholders was presented.

- **Chairman / Chairperson** also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the following points.

1. Scheme of Regulation 2022-2023
2. Courses for the Programme.
3. Syllabus for the courses of the first semester alone.
4. Syllabus passed in the S&H board to be presented for the consent.

Also, the following points were discussed.

- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved
- Panel suggestion for introducing Professional Core Major and Professional Core Minor in new Regulation 2022.

#### **Department specific Board of Studies Discussion / Suggestions: >>>**

##### **Regulation 2022**

- Academic expert (**DrVidhyaPriya**) suggested to add 19BM83023& Artificial Intelligence and Machine Learning can be added in new curriculum in Semester VII as Professional Elective.
- Academic Expert(**Dr.P.Manimegalai**)suggested that instead of Artificial Neural Network we can make 19BM8302& Artificial Intelligence and Machine Learning mandatory subject in Semester VII.
- University Nominee (**Dr. S.J. Thiruvengadam**) suggested to add 19BM3201& Electron Devices And Circuits can be changed based on the gate electronics topics can be included.
- Academic expert (**DrVidhyaPriya**) suggested that in 19BM6301-Biomaterials-Semester VI. We can include Tissue Engineering subject need to be included.
- Academic expert (**DrVidhyaPriya**) suggested whether Research Methodology subject whether needed for UG Students.
- Industry expert (**Dr.N. Nandhakumar**) suggested to add Python Programming And Practices in Semester –I for the students which will be helpful for job placements.
- Academic Expert(**Dr.P.Manimegalai**)suggested that Semester –I Entrepreneurship can be added.

- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that Seminar Presentation Skill subject can be added in the curriculum.
- Academic Expert (**Dr.P.Manimegalai**) suggested that instead of 19BM4201&LIC in semester –IV Signal Conditioning unit to be included
- Academic expert (**DrVidhyaPriya**) suggested that instead of 19BM6202& radiological equipment's and nuclear medicine Semester –V the title to be changed as radiological equipment's
- Subject Expert (**Dr.A.Thirugnanam**) suggested that instead of 19BM6302&Embedded Systems In Medical Devices-Semester –VI title to be changed as Embedded System For Biomedical Engineers
- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that Instead of Total Quality Management in Professional Elective-I, 19BM6302& Hospital System Management can be included.
- Industry expert (**Dr.N. Nandhakumar**) suggested that Laser and Optics subjects to be included in elective.
- Academic Expert (**Dr.P.Manimegalai**) suggested that In First Semester Basics Of Electrical Engineering can be a theory with lab subject and PSPICE software can be included in all units as experiments

**The following resolutions are made in the Board of Studies meeting:**

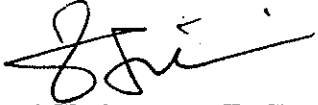
- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of Regulation 2022 for the I semester subjects were introduced and passed by the Science and Humanities, Computer Science and Engineering, Mechanical Engineering, Electrical and Electronics Engineering boards and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.
- Syllabus of Regulation 2022 for the I Semester Subjects- 22MAXXX, 22PHXXX, 22CYXXX, 22HSXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in Regulation 2022.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

**1. <<if Department specific Board of Studies resolutions/Common**

**Suggestions: >>**

- Panel Members Suggested more new courses can be introduces in the new regulation which can be useful for placement and higher studies.

The meeting came to an end at 1 pm with vote of thanks.



**Chairman / Chairperson(BoS)**

**Enclose:**

1. Previous BoS Minutes-ATR
2. Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File Copy

Date: 18.08.2022

**Action Taken Report on BoS**

The Seventh Board of Studies meeting of B.E Biomedical Engineering- Regulation 2022 for the Academic Year 2022-2023 (Odd Semester) was held at office board room in hybrid mode on 16.08.2022 at 11:00 AM and the Google Meet Link is <https://meet.google.com/yzb-nhwt-rhf>.

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19BM8302& Artificial Intelligence In Healthcare	Incorporated	20%
2.	Instead of 19BM8302& Artificial Intelligence In Healthcare -Artificial Intelligence and machine learning can be introduced.	Will be introduced in the new curriculum 2022	70%
3.	19BM3201& Electron Devices and Circuits	Incorporated	20%
4.	19BM6302& Embedded Systems and IoMT	Incorporated	70%
5.	22HE2151& Effective Technical Communication	Will be introduced in the new curriculum 2022	50%
6.	19BM4201& LIC	Incorporated	20%
7.	19BM6202& Radiological Equipments	Incorporated	10%
8.	19BM6302& Embedded Systems and IoMT	Incorporated	10%
9.	19BM8308- Biomedical Optics and Photonics	Incorporated	70%
10.	19BM6301- Biomaterials	Incorporated	20%
11.	19BM6302- Hospital Planning and management	Incorporated	80%

**Overall Percentage of syllabus revision made in the BoS :40%**

**(ii) Courses Introduced Regulation 2022**

S.No.	CourseCode	CourseTitle	Credit
1.	22HE1151	English for Engineers (Common)	3
2.	22MA1101	Matrices and Calculus (Common)	4
3.	22ME1201	Engineering Drawing	3
4.	22CY1151	Chemistry For Circuit Engineering	3
5.	22IT1151	Python Programming and practices	3
6.	22HE1071	Universal Human Values II (Common)	2
7.	22HE1072	Entrepreneurship & Innovation (Common)	1
8.	22MC1091/ 22MC1092	அறிவியல்தமிழ் /Indian Constitution(Common)	0
9.	22MA2103	Fourier Ananlysis and Transforms	4
10.	22CY2101	Environmental Studies (Common)	2
11.	22PH2101	Basics of Material Science	2
12.	22CS2152	Essentials of C&C++ Programming	3
13.	22PH2151	Physics For Circuit Engineering	3
14.	22HE2151	Effective Technical Communication(Common)	3
15.	22ME2001	Engineering Practices (Common)	2
16.	22HE2071	Design Thinking (Common)	2
17.	22HE2072	Soft Skills -1(Common)	1
18.	22MC2091/ 22MC2092	தமிழர்மரபு/ Essence of Indian Traditional Knowledge	0
19.	22BM3201	Signals and Systems	4
20.	22BM3202	Electron Devices and Circuits	4
21.	22BM3203	Medical Biochemistry	3
22.	22BM3204	Human Anatomy and Physiology	3
23.	22MA3151	Statistics and Numerical Methods with R Program	4
24.	22BM3251	Digital Electronics	3
25.	22BM3001	Biochemistry Lab	2
26.	22BM3002	Electron Devices and Circuits Lab	2
27.	22HE3071	Soft Skills -2 (Common)	1
28.	22HE4101	IPR and Start-ups (commom)	2
29.	22BM4201	Linear integrated circuits	3
30.	22BM4202	Pathology and Microbiology	3



31.	22BM4203	Sensors and Measurements	4
32.	22BM4251	Microcontrollers and its application in medicin	3
33.	22BM4252	Biomedical Instrumentation	3
34.	22BM4001	Human Anatomy and Physiology Laboratory	2
35.	22BM4002	IC Lab	2
36.	22HE4071	Soft Skills -3	1
37.	22BM5201	Biocontrol System	4
38.	22BM5202	Embedded Systems and IoMT	3
39.	22BM5251	Virtual Instrumentation LabVIEW	3
40.	22BM5001	Embedded Systems Lab	2
41.	22HE5071	Soft Skills -4/Foreign languages	1
42.	22BM6201	Diagnostic and therapeutic Equipment	3
43.	22HE6101	Professional Ethics (Common)	3
44.	22BM6001	Biosignal processing lab	2
45.	22BM6002	Diagnostic and therapeutic Equipment lab	2
46.	22HE6071	Soft Skills - 5	2
47.	22BM7201	Medical Image Processing	3
48.	22BM7202	Radiological Equipments	4
49.	22BM7001	Medical Image Processing lab	2
50.	22BM7701	Internship *	2
51.	22BM8901	Project Work/Granted Patent	10

52.	22BM6451	Augmented and Virtual Reality	3
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SL.NO.	COURSE CODE	COURSE TITLE	CREDITS
53	22BM7401	First Aid And Emergency Care	3

**Professional Elective**

S.NO	COURSE CODE	COURSE TITLE	Credits
1.	22BM5301	Biomaterials	3
2.	22BM5302	Artificial Organs and Implants	3
3.	22BM5303	Biomedical Optics and Photonics	3
4.	22BM5304	Neural Engineering	3
5.	22BM5305	Principles of	3

6.	22BM5306	Genetic Engineering	3
7.	22BM5307	Foundation Skills in integrated product Development	3
8.	22BM5308	Artificial neural networks	3
9.	22BM5309	Patient safety, Standards and Ethics	3
10	22BM5310	Medical Device Regulations	3
11	22BM5311	Medical Innovation and Entrepreneurship	3
12	22BM5312	Rapid Prototyping	3
13	22BM6301	Medical physics	3
14	22BM6302	Hospital Planning and management	3
15	22BM6303	Medical waste Management	3
16	22BM6304	Economics and management for Engineers	3
17	22BM6305	Bio Statistics	3
18	22BM6306	Forensic Science in healthcare	3
19	22BM6307	Biomechanics	3
20	22BM6308	Rehabilitation engineering	3
21	22BM6309	Physiological modelling	3
22	22BM6310	Assistive Technology	3
23	22BM6311	Ergonomics	3
24	22BM6312	Haptics	3
25	22BM7301	Bio signal Processing	3
26	22BM7302	Computer Vision	3
27	22BM7303	Speech and audio signal Processing	3
28	22BM7304	Medical Imaging Systems	3
29	22BM7305	Brain Computer Interface and Applications	3
30	22BM7306	Biometrics	3
31	22BM7307	Rehabilitation Engineering	3

32	22BM7308	Wearable devices	3
33	22BM7309	Body Area Networks	3
34	22BM7310	Virtual reality and Augmented Reality in Healthcare	3
35	22BM7311	Tele health Technology	3
36	22BM7312	Medical Informatics	3

**Minor Specialization in Biomedical Engineering.**

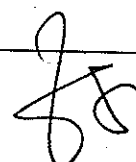
SL. NO.	COURSE CODE	COURSE TITLE	CREDITS
1.	22BM5231	Introduction To Biomedical Technology	3
2.	22BM6231	Anatomy And Physiology	3
3.	22BM6232	Biomedical Instrumentation	3
4.	22BM7231	Radiological Equipments	3
5.	22BM7232	Diagnostic and Therapeutic Equipments	3

**B Tech (Hons) BIOMEDICAL ENGINEERING WITH SPECIALIZATION IN ADVANCED HEALTHCARE AND DEVICES+**

S.No.	Course Code	Course Title	Credits
1	22BM5203	Artificial Intelligence And Machine Learning	3
2	22BM6202	Critical Care Equipments	3
3	22BM6203	Human Assist Devices	3
4	22BM7203	Advancements In Healthcare Technology	3
5	22BM7204	Robotics In Medicine	3
6	22BM8201	Modeling of physiological systems	3

**General Recommendations:**

S.No.	Suggestion given in the BoS experts	Action taken
1	Panel Members Suggested more new courses can be introduces in the new regulation which can be useful for placement and higher studies.	Considered


  
**CHAIRMAN**  
**BoS/BME**





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Coimbatore – 641 032

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

**MINUTES OF BOARD OF STUDIES MEETING**

Name of the Department: BIOMEDICAL ENGINEERING

Date: 08.02.2023

The Eighth Board of Studies meeting of Regulation 2022 for the Academic Year 2022-2023, Even Semester was conducted on 08.02.2023 at 4:30 p.m. in Library Board Room in hybrid mode, Hindusthan College of Engineering and Technology and the Google Meet Link is <https://meet.google.com/yzv-unnn-xat>.

The following members were present

S.No.	Name of the Member	Department	Position
1.	Dr.S.Saravana Sundaram, Professor and Head, Department of Biomedical Engineering, HICET	Department of Biomedical Engineering	Chairman
2.	Dr. S.J. Thiruvengadam, Professor Thiyagarajar College of Engineering , Madurai-625015 sjtece@tce.edu	Department of Electronics and Communication Engineering	University Nominee
3.	Dr. Vidhya Priya, Prof & Head Department of Biomedical Engineering, PSG College of Technology, Coimbatore. rvp.bme@psgtech.ac.in	Department of Biomedical Engineering	Academic Expert

4.	Dr.P. Manimegalai,M.E., Ph.d.Associate Professor Department of Biomedical Engineering, Karunya Institute of Technology and Science, Coimbatore. <a href="mailto:manimegalaip@karunya.edu">manimegalaip@karunya.edu</a>	Department of Biomedical Engineering	Academic Expert
5.	A. Thirugnanam, Associate Professor and Head, NIT Rourkela,Odisha,Department of Biotechnology and Medical Engineering, <a href="mailto:thirugnanam.a@nitrkl.ac.in">thirugnanam.a@nitrkl.ac.in</a>	Department of Biotechnology and Medical Engineering,	Member from QS rated institution
6.	Dr.N.Nandakumar, Industry Expert,Prime Medical systems	Prime Medical systems	Industry Expert
7.	Ms.Mano Alagammai, Batch(2018-22 batch)	CTS trainee Coimbatore	Alumni Member
8.	Dr.T.Murugeswari,Assoc Professor/BME	Department of Biomedical Engineering	Internal Member
9.	Dr.M.Ganga, Assoc Professor/BME	Department of Biomedical Engineering	Internal Member
10.	Mrs.S. Shobha Christila,AP/BME	Department of Biomedical Engineering	Internal Member
11.	Mrs M Deeparani, AP/BME	Department of Biomedical Engineering	Internal Member

12.	Ms.P.Raja RajeswariChandni, AP/BME	Department of Biomedical Engineering	Internal Member
13.	Mr.P.Radha Krishnan, AP/BME	Department of Biomedical Engineering	Internal Member
14.	Mr. K. Gobinath, AP/BME	Department of Biomedical Engineering	Internal Member
15.	Mrs.M.Kirthika, , AP/BME	Department of Biomedical Engineering	Internal Member
16.	Mr.B.Sonaimuthi	Department of Biomedical Engineering	Student-II BME
17.	Ms.M.Bavithra	Department of Biomedical Engineering	Student-III BME
18.	Mrs.S.Revathi Sundar Rajan ,M/O, Mr. S Siddharth, Student-IV BME	Department of Biomedical Engineering	Parent Member

- Due to his/ her preoccupied schedule   NIL   not attend the meeting.
- The chairman of the BoS, **Dr. S. Saravanasundaram** welcomed all the dignitaries for the meeting. **Chairman / Chairperson** introduced the BoS members.
- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies (Pre-BoS)/ Department Advisory Committee (DAC).
- The **Chairman / Chairperson** presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 08.02.2022 was approved.
- **Chairman / Chairperson** also gave an outline of the changes to be made in the curriculum given by

the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the employability enhancement courses, life skill, soft skill, design thinking and IPR related courses in the curriculum to be in line with the industry needs.

- Chairman presentation of revision/updation.
- Any other approval from the members
- Completed and current semester value-added courses.
- The curriculum and syllabus for the new courses

Also, the following points were discussed.

- Value added courses and NPTEL were submitted to the panel for approval and it was approved
- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors, Honors with specialization system in new regulation 2022.
- Panel suggested introducing Quality Assessment in the course.
- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved.
- The whole curriculum and syllabi of Second semester subject alone is discussed for 2022 regulation.
- Discussion of inclusion of new courses for new Regulation 2022.
- The following NPTEL course Bio. photonics are found to be equivalent to 1 course of the Professional Elective-IV list offered during VII semester using Credit transfer for NPTEL course.
- Panel for question paper setting & Evaluation for the individual Programme presented for consent.
- Stakeholders' feedback and analysis presented for consent.
- Value-added courses to be presented for consent.

The following value added and certificate courses with the duration of minimum 30 hrs each are introduced as suggested.

- PCB Design using ORCAD Software
- Object Oriented Programming Using JAVA
- Hospital Clinical Trial
- First Aid and Emergency Care
- Lab VIEW GUI Programming with Real time Application



Lab VIEW put as Virtual Instrumentation for Biomedical Signals Processing using Lab VIEW.

- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that semester VII Medical Image processing can be moved from the core to the elective
- Academic Expert (**Dr.P.Manimegalai**) suggested that in Professional Elective IV Check the syllabus similarity for Rehabilitation Engineering and Assistive Technology elective subjects.
- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that In minor degree theory with laboratory courses can be included.
- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that In minor degree courses instead of engineering and Anatomy And Physiology course put as engineering anatomy and physiology.
- Academic Expert (**Dr.P.Manimegalai**) suggested that in honors degree courses Robotics In Health Care course lab integrated or project integrated course can be done.
- Academic Expert (**Dr.P.Manimegalai**) suggested that In Honors Degree Programme Brain Computing interface subject can be included.
- Academic Expert (**Dr.P.Manimegalai**) suggested that In Honors Degree Programme Some topics related to M-Health and E-Health can be included in Advance Healthcare Technology honor degree programme..
- Academic Expert (**Dr.P.Manimegalai**) suggested that In Honors Degree Programme separate vertical for Medical equipments calibration and troubleshooting can be included as honors subject.
- Member from QS rated institution (**Dr.A.Thirugnanam**) suggested that Cancer biology can be included as honors subject.
- Member from QS rated institution (**Dr.A.Thirugnanam**) suggested that in Professional Elective -I, Gate syllabus courses can be included in biomaterials.
- Academic Expert (**Dr.P.Manimegalai**) suggested that In in Professional Elective -V, bio-signal DTFT topic can be included.

**The following resolutions are made in the Board of Studies meeting:**

- In almost all the courses, changes have been done as per the current needs.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MAXXX, 22PHXXX, 22CYXXX, 22HEXXX, 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.

Skill Development courses introduced for member's approval.

- 19 LSZ401 –General Studies for Competitive Examinations
- 19 LSZ402 – Human Rights, Women's Rights and Gender Equality
- 19 LSZ403 – Indian Ethos and Human Values
- 19 LSZ404 – Indian Constitution and Political System
- 19 LSZ405 – Yoga for Human Excellence

Employability courses introduced for member's approval.

- 22HE1071 – Universal Human Values
- 22HE1072 – Entrepreneurship & Innovation
- 22HE2071 – Design Thinking
- 22HE2072 – Soft Skills – I

The following are the recommendations put forth by the BoS members,

#### **Regulation 2022**

- Academic Expert (**Dr.P.Manimegalai**) suggested that in semester IV Instead of LIC signal conditioning circuits in applications of medicine/healthcare syllabus topic can be included.
- Member from QS rated institution(**Dr.A.Thirugnanam**) suggested that Signal processing subject to be included in V Semester
- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that in semester IV Sensors and measurements can be made as theory with lab component
- University Nominee (**Dr. S.J. Thiruvengadam**) suggested that in semester IV Biomedical instrumentation subject can be made as Medical Therapeutic Equipment I and Medical Therapeutic Equipment II and additionally ICU and Operation Theatre Equipment subject can be included.
- Academic Expert (**Dr.P.Manimegalai**) suggested that in semester IV Instead of Linear Integrated Circuits Lab Signal Conditioning Circuits Lab can be done.
- University Nominee (**Dr. S.J. Thiruvengadam**) In semester V Virtual Instrumentation using

- Syllabus of Regulation 2022 for the II Semester Subjects- 22CSXXX were introduced and passed by Computer Science Engineering and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.
- Syllabus of Regulation 2022 for the II Semester Subjects- 22MEXXX were introduced and passed by Mechanical Engineering and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in Regulation 2022.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

**1. <<if Department specific Board of Studies resolutions/Common**

**Suggestions: >>**

- Panel Members Suggested more new courses can be introduces in the new regulation which can be useful for placement and higher studies.

The meeting came to an end at 4 pm with vote of thanks.

**Chairman / Chairperson( B o S )**

**Chairman BoS  
BME - HiCET**

**Enclose:**

1. Previous BoS Minutes-ATR
2. Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File Copy







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Coimbatore – 641 032

**ACTION TAKEN REPORT ON BoS**

Name of the Department: BIOMEDICAL ENGINEERING

Date: 10.02.2023

The Eighth Board of Studies meeting of Regulation 2022 for the Academic Year 2022-2023, Even Semester was conducted on 10.02.2023 at 4:30 p.m. in Library Board Room in hybrid mode, Hindusthan College of Engineering and Technology and the Google Meet Link is <https://meet.google.com/yzv-unnn-xat>.

(I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19BM8302 Artificial Intelligence in Healthcare -PE IV swapped between 19BM8308 Biophotonics-PE V	Modifications can be done	100%
2.	19BM6201R Biosignal Processing (R)	Modifications can be done	100%

Overall Percentage of revision made in the BoS: ----%

(III) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1.	R22	22HE2071 Design Thinking	2
2.		22MC2093 NCC*/NSS/YRC/Sports / Clubs /Society Service- Enrollment	1
3.		22MC2091/ தமிழர்மரபு / Heritage of Tamils 22MC2092	0
4.		22BM3201 Signals and Systems	3
5.		21BM5231 Basics of Anatomy and Physiology [Minor Degree]	3

RMF  
BOS

6.	R19	21BM5203 Artificial Intelligence And Machine Learning[Honours Degree]	3
7.		21BM5204 Modeling of physiological systems[Honours Degree]	3
8.		19BM6201(R) Biosignal Processing(R)	4

**(IV) Mandatory Courses (if any)**

S.No.	Course Code with Name
1.	19BM6701 Industrial Training*
2.	19HE6071 Soft Skill
3.	19HE6072 Intellectual Property Rights

**(V) Non-credit Mandatory Courses (if any)**

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 தமிழர் மரபு /Heritage of Tamils
2.	21MC4211 Value education- Essence of Indian Traditional Knowledge
3.	21HE4072 Career Guidance –Level IV
4.	21HE4073 Ideation Skills

**(VI) Additional Credit Courses Introduced:**

S.No.	Course Code with Name
1.	19VABM01-Python In Biomedical Applications
2.	19VABM02-Medical Equipment Training Calibration And Trouble Shooting

(VII) The following recommendations given by stakeholders are considered and incorporated.

Panel Members Suggested more new courses can be introduces in the new regulation Which can be useful for placement and higher studies.

**(VIII). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	Mini project can be given for minor degree students	Considered
2.	Latest Medical Technology Based Subjects Can Be Introduced	Considered

  
Chairman

(Board of Studies)

**Chairman · BoS  
BME - HiCET**

  
Dean Academics

**Dean (Academics)  
HiCET**

**Academic Year: 2022-2023**

**Minutes of the Board of Studies Meeting**

The meeting of the Fifth Board of Studies in Department of Artificial Intelligence and Machine Learning undergraduate programme was conducted on 23-08-2022 at 10:00 am in the Blended Mode (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs)).

The following members were present:

S. No.	Name of the Person	Department	Position
1	<b>Dr Shankar S</b> Professor & HOD	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology.	Chairman
2	<b>Dr Thulasimani K</b> Professor	Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli. Mobile: 9486939882 E-Mail id: <a href="mailto:thulasimani@gcetly.ac.in">thulasimani@gcetly.ac.in</a>	University Nominee
3	<b>Dr Marikkannan M</b> Assistant Professor (Senior)	Dept of CSE, Institute of Road and Transport Technology, Erode - 638316. Mobile: 9443851839, 9095909111 Mail id: <a href="mailto:mmk.irtt@gmail.com">mmk.irtt@gmail.com</a>	Subject Expert
4	<b>Dr Sivaganesan D</b> Professor	Department of Computer Science and Engineering, PSG Institute of Technology and Applied Research, Coimbatore. Mobile: 9942237029 E-Mail id: <a href="mailto:sivaganesand@gmail.com">sivaganesand@gmail.com</a>	Subject Expert
5	<b>Dr PRAKASH P</b> Associate Professor	School of Computer Science and Engineering, VIT Chennai. Mobile: 9884814492 E-Mail id: <a href="mailto:npprakash@gmail.com">npprakash@gmail.com</a>	Member from QIS rated Institution
6	<b>Dr JAMEER BASHA A</b> Professor & HOD	Department of Computer Science and Engineering, Hindusthan Institute of Technology. Mobile: 9443403786 E-Mail id: <a href="mailto:jameer@hit.edu.in">jameer@hit.edu.in</a>	Member from sister concern
7	<b>Mr Rajesh Kumar H</b> Founder	BuzzTech Training Institute, Coimbatore. Mobile: 9840123422	Industry Expert

		E-Mail id: rajesh.karthi79@gmail.com	
8	<b>Mr Manuraj Rajamanikandan</b> Non-Functional Consultant	Cognizant, Kochi, Kerala. Mobile: 7845162390 E-Mail id: manuraj.rajamanikandan@cognizant.com	Alumni
9	<b>Dr KOUSALYA DEVI M</b> Associate Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
10	<b>Dr SATHEESH KUMAR D</b> Associate Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
11	<b>Ms AMUTHAVALLI</b> Assistant Professor	Department of AIML Hindusthan College of Engineering and Technology	Member
12	<b>Mr Jayaraj R</b> Assistant Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
13	<b>Ms Ramya Devi M</b> Assistant Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
14	<b>Ms SATHYA S</b> Assistant Professor	Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Member
15	<b>Ms. Ragavi P R</b>	20115040- III B.TECH AIML	Student Member
17	<b>Mr. A.Ramesh</b>	F/o, Ms. Ragavi P R, III B.TECH AIML	Parent Member

The chairman of the BoS, **Dr SHANKAR S** welcomed all the members for the Fifth Board of Studies meeting and thanked the Management, Chief Executive Officer, and Dean for giving permission to conduct this meeting. The chairman introduced the BoS members.

The Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the employability enhancement courses, life skill, soft skill, design thinking and IPR related courses in the curriculum to be in line with the industry needs and emphasized the following points.

#### 1. Scheme of Regulation 2022-2023



2. Courses for the Programme.

3. Syllabus for the courses of the first semester alone.

4. Syllabus passed in the S&H board to be presented for the consent.

Also, the following points were discussed.

- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved

Also, the following points were discussed:

- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved.
- Panel suggestion for introducing Professional Core Major and Professional Core Minor in new Regulation 2022.

1. *For 2020-2024 batch students, the following courses have been introduced*

- In Semester V – 19AI5252 Introduction to Design Thinking course is introduced as Theory with Lab Component as per the suggestions from IBM Partner

2. *For 2021-2025 batch students, the following courses have been introduced*

- In Semester V – 19AI5252 Introduction to Design Thinking course is introduced as Theory with Lab Component as per the suggestions from IBM Partner

4. *The following Discussion on Curriculum and Syllabus took place:*

- The Chairman of BoS introduced the Semester 1 syllabus, curriculum of semester 1 to 8 for the regulation 2022.
- The Chairman of BoS presented the syllabus for theory courses Matrices and Calculus, Basics of Electrical Engineering, Universal Human Values.
- The Chairman of BoS presented the syllabus for theory with lab component courses i.e. Chemistry for Circuit Engineering, English for Engineers – I, Problem Solving Using C Programming and also presented employment enhancement course Entrepreneurship and Innovation.

5. *The following suggestions were given by Board of Studies members after discussion:*

- Anna University Nominee **Dr Thulasimani K** suggested to include Applied Statistics since it is mandatory for clearing Competitive Examinations..
- Academic Expert **Dr. P. Prakash** suggested to split Introduction to Machine Learning course into three courses since the syllabus framed will be tough to study. Three courses can be:
- Foundation of Machine Learning in Fourth semester

- Advanced Machine Learning in Fifth semester
- Deep Learning in Sixth semester and Chairman explained as ,
- Deep Learning course is already provided in Seventh semester
- Machine Learning Techniques-1 is offered in Fifth Semester
- Machine Learning Techniques-2 is offered in Sixth Semester
- Academic Expert **Dr Marikkannan M** Suggested to replace the Operating System, Computer Architecture and Organization with some other courses related to Artificial Intelligence and Machine Learning and Chairman Explained as “Since all are Core courses, cannot be replaced.
- Academic Expert **Dr Marikkannan M** Asked to include the courses whatever is required or mandatory for Artificial Intelligence and Machine Learning with minimum credits.
- Academic Expert **Dr. Sivaganesan** Suggested to include Software Engineering as core Paper.
- Academic Expert **Dr. Sivaganesan** Suggested to include Data Privacy Preservation as Elective.
- Industry Expert **Mr Rajesh Kumar H** Suggested to include Applied Statistics since it is mandatory for Artificial Intelligence and Machine Learning concepts
- Industry Expert **Mr Rajesh Kumar H** Suggested to include NO SQL Concepts in DBMS course.
- Academic Expert **Dr Prakash P** appreciated Head of the Department for the hard work which was put forth for conducting BOS meeting. He also appreciated the inclusion of certain scenario based laboratory courses as well as Employability Enhancement courses.

**The following resolutions were made in the Board of Studies meeting:**

- In almost all the courses, changes has been made as per the Local, Regional, National and Global needs.
- The curriculum and syllabus of Regulation 2022 for the I semester subjects were passed by the Science and Humanities, Computer Science and Engineering, Mechanical Engineering, Electrical and Electronics Engineering boards and permitted to move on Academic Council by the BoS members of AIML for the students admitted during the academic year 2022-2023 and onwards.

- The syllabi of III & IV semester of the UG Programmes for the students admitted during the academic year 2021 - 2022 and onwards was passed and permitted to move on Academic Council.
- The syllabi of V & VI semester of the UG Programmes for the students admitted during the academic year 2020 - 2021 and onwards was passed and permitted to move on Academic Council.

**Percentage of Programmes where syllabus revision was carried out in BoS:**

a) Semester: V, Course Code: 19AI5252, Course Name: Introduction to Design Thinking (Theory with Lab component course), Credits: 3 (Percentage of revision was done- 100%)

- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in Regulation 2019(Revised).
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses. The meeting came to an end at 12:00 noon with vote of thanks.

  
Chairman - BoS

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File





*Hindustan College of Engineering And Technology*  
Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)

Coimbatore – 641 032



**DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**

**Action taken report – Board of Studies meeting**

Action taken report for the Fifth Board of Studies meeting conducted for the Academic Year: 2022 – 2023(ODD SEMESTER) on 23-08-2022 at 10.00 am Hybrid Mode (Google Meet: [meet.google.com/vkk-mndwf-yjs](https://meet.google.com/vkk-mndwf-yjs)).

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	19AI5252- Introduction to Design Thinking	Incorporated	100%

**Overall Percentage of syllabus revision made in the BoS : 17 %**

**(ii) New courses Introduced:**

S.No.	Regulation	Course code with name	Credits
1.	2019R	19CS5252- Introduction to Design Thinking	3

**Courses in the curriculum 2022:**

S.No.	Regulation	Course code with name	Credits
1	2022	22MA1101 - Matrices and Calculus	4

2	2022	22EE1231 - Basics of Electrical Engineering	3
3	2022	22HE1151 - English for Engineers	3
4	2022	22CY1151 - Chemistry for Circuit Engineers	3
5	2022	22CS1152 - Object Oriented Programming using Python	3
6	2022	22HE1071 - Universal Human Values	2
7	2022	22HE1072 - Entrepreneurship & Innovation	1
8	2022	22MC1091-அறிவியல் தமிழ்	0
9	2022	22MC1092 - Indian Constitution	0
10	2022	22MA2105 - Linear Algebra & Differential Equations	4
11	2022	22PH2101 - Basics of Material Science	2
12	2022	22CY2101 - Environmental Studies	2
13	2022	22HE2151 - Effective Technical Communication	3
14	2022	22PH2151 - Physics for Circuit Engineering	3
15	2022	22CS2253 - Java Fundamentals	3
17	2022	22ME2001 - Engineering Practices	2
18	2022	22HE2071 - Design Thinking	2
19	2022	22HE2072 - Soft Skills -1	1
20	2022	22MC2091 - தமிழ்மரபு	0

21	2022	22MC2092 - Essence of Indian Traditional Knowledge	0
22	2022	22MA3106 - Mathematics for Machine Learning	4
23	2022	22AI3201 - Data Structures and Algorithms	3
24	2022	22AI3202 - Foundations of Artificial Intelligence	4
25	2022	22AI3203 - Microprocessor and Embedded Systems	3
26	2022	22CS3253 - Clean Coding and Devops	4
27	2022	22AI3001 - Microprocessor and Embedded Systems Laboratory	2
28	2022	22AI3002 - Foundations of Artificial Intelligence Laboratory	2
29	2022	22HE3071 - Soft Skills -2	1
30	2022	22AI3003 - Data Structures and Algorithms Laboratory	2
31	2022	22HE4101 - IPR and Start-ups	2
32	2022	22AI4202 - Software Engineering	3
33	2022	22AI4251 - Operating Systems	3
34	2022	22AI4203- Data Visualization	3
35	2022	22AI4201- Database Management Systems	4
36	2022	22AI4001- Database Management Systems Laboratory	2
37	2022	22AI4002 - Data Visualization Laboratory	2

38	2022	22HE4071 - Soft Skills -3	1
39	2022	22AI5201 - Machine Learning Techniques-1	4
40	2022	22AI5202 - Computer Networks	3
41	2022	22AI5251- Introduction to Design Thinking	3
42	2022	22AI5001 - Machine Learning Techniques-1 Laboratory	3
43	2022	22HE5071 - Soft Skills -4	1
44	2022	22AI6201 - Machine Learning Techniques-2	3
45	2022	22HE6101 - Professional Ethics	3
46	2022	22AI6001- Machine Learning Techniques-2 Laboratory	2
47	2022	22AI6002- Data Analytics Laboratory	2
48	2022	22HE6071 - Soft Skills - 5	2
49	2022	22AI7201 - Big Data Analytics	3
50	2022	22AI7202 - Deep Learning	4
51	2022	22AI7001 - Deep Learning Laboratory	2
52	2022	22AI7701 - Internship - II	2
53	2022	22AI8901 - Project Work	10
54	2022	22AI6451 - Artificial Intelligence and Machine Learning Fundamentals	3
55	2022	22AI7401 - Fundamentals Of Management For Engineers	3



56	2022	22AI5301 Data warehouse and Mining	3
57	2022	22AI5302 Information Retrieval Techniques	3
58	2022	22AI5303 Data Science Tools And Techniques	3
59	2022	22AI6301 R Programming For Data Science	3
60	2022	22AI6302 Fuzzy logic and Neural Networks	3
61	2022	22AI7301 Recommender Systems	3
62	2022	22AI5304 Web Technology	3
63	2022	22AI5305 UI and UX Design	3
64	2022	22AI5306 Software Testing and Automation	3
65	2022	22AI6303 Principles of Programming Languages	3
66	2022	22AI6304 Web Application Security	3
67	2022	22AI7302 Cloud Services Management	3
68	2022	22AI5307 Wireless Sensor Networks	3
69	2022	22AI5308 Cloud Computing	3
70	2022	22AI5309 Cloud Storage infrastructure	3
71	2022	22AI6305-Cloud Strategy Planning and Management	3
72	2022	22AI6306 5G Network	3

73	2022	22AI7303 Internet Security and Privacy	3
74	2022	22AI5310 Ethical Hacking	3
75	2022	22AI5311 Web and Android Security	3
76	2022	22AI5312 Modern Cryptography and Network Security	3
77	2022	22AI6307 Application of AI in Cyber Security	3
78	2022	22AI6308 Cyber Forensic & investigation	3
79	2022	22AI7304 Block chain and Cryptocurrency Technology	3
80	2022	22AI5313 Computer Graphics and Multimedia	3
81	2022	22AI5314 Image and videoanalytics	3
82	2022	22AI5315 Game Programming	3
83	2022	22AI6309 Computer Vision	3
84	2022	22AI6310-Introduction to Augmented Reality	3
85	2022	22AI7305 Virtual Reality	3
86	2022	22AI5316 Soft Computing in Medical Diagnostics	3
87	2022	22AI5317 Natural Language Processing	3
88	2022	22AI5318 Quantum Computing	3
89	2022	22AI6311 Stream Analytics	3
90	2022	22AI6312 3D Printing and Design	3

91	2022	22AI7306- Robotic Process Automation	3
92	2022	22AI5231- Introduction to Databases	3
93	2022	22AI6231 - Foundation of Artificial Intelligence & Machine Learning	3
94	2022	22AI6232 - Introduction to Internet Of Things	3
95	2022	22AI7231 - Natural Language Processing	3
96	2022	22AI7232 - Deep Learning -Principle & Practice	3
97	2022	22AI8231 - Reinforcement Learning	3
98	2022	22AI5204 - Analysis of Algorithms for AI	3
99	2022	22AI6203 - Advanced Neural Networks	3
100	2022	22AI6204 - Mobile Computing	3
101	2022	22AI7203 - Introduction to Industry 4.0	3
102	2022	22AI7204 - Full Stack Development	3
103	2022	22AI8201 - Pattern Recognition	3
104	2022	22AI6213 - AI Analyst	3
105	2022	22AI6314 - Business Intelligence	3
106	2022	22AI7307 - Predictive Modeling	3

### General Recommendations:

S.No.	Suggestion given in the BoS experts	Action taken / Explanation
1	Panel Members Suggested more new courses can be introduced in the new regulation which can be useful for placement and higher studies.	Considered
2	<p>Asked to split Introduction to Machine Learning course into three courses since the syllabus framed will be tough to study. Three courses can be:</p> <ul style="list-style-type: none"> <li>• Foundation of Machine Learning in Fourth semester</li> <li>• Advanced Machine Learning in Fifth semester</li> <li>• Deep Learning in Sixth semester</li> </ul>	<p>Chairman explained</p> <ul style="list-style-type: none"> <li>• Deep Learning course is already provided in Seventh semester</li> <li>• Machine Learning Techniques-1 is offered in Fifth Semester</li> <li>• Machine Learning Techniques-2 is offered in Sixth Semester</li> <li>• Incorporated</li> </ul>
3.	Asked to replace the Operating System, Computer Architecture and Organization with some other courses related to Artificial Intelligence and Machine Learning	<p>Since all are Core courses, cannot be replaced</p> <ul style="list-style-type: none"> <li>• Not Applicable.</li> </ul>
4.	Asked to include the courses whatever is required or mandatory for Artificial Intelligence and Machine Learning with minimum credits	Incorporated
5.	Suggested to include NO SQL Concepts in DBMS course.	Incorporated
6	Suggested to include Software Engineering as core Paper.	Incorporated
7	Suggested to include Data Privacy as Elective	Incorporated

*Sathy*  
Chairman & BOS



# **Hindusthan College of Engineering and Technology**

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 18.02.2023

## **DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

### **MINUTES OF BOARD OF STUDIES MEETING**

Name of the Department: **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

The 6<sup>th</sup> Board of Studies meeting of regulation R2019 & R2022 for the academic year 2022 -2023 Even Semester was conducted on 18.02.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs)).

The following members were present:

S. No.	Name of the Member	Position
1	<b>Dr Shankar S</b> <b>Professor &amp; HOD</b> Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Chairman
2	<b>Dr Thulasimani K</b> Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007	University Nominee
3	<b>Dr Marikkannan M</b> Assistant Professor (Senior) Dept of CSE, Institute of Road and Transport Technology, Erode - 638316.	Subject Expert
4	<b>Dr Sivaganesan D</b> Professor Department of Computer Science and Engineering, PSG Institute of Technology and Applied Research, Coimbatore.	Subject Expert
5	<b>Dr PRAKASH P</b> Associate Professor School of Computer Science and Engineering, VIT Chennai.	Member from QIS rated Institution
6	<b>Mr Rajesh Kumar H</b> Founder BuzzTech Training Institute, Coimbatore.	Industry Expert

7	<b>Mr Manuraj Rajamanikandan</b> Non-Functional Consultant Cognizant, Kochi, Kerala.	Alumni
8	<b>Dr .JAMEER BASHA A</b> <b>Professor &amp; HOD</b> Department of Computer Science and Engineering, Hindusthan Institute of Technology	Member from sister concern
9	<b>Ms SATHYA S</b> Assistant Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Autonomous Coordinator & BoS Member
10	<b>Dr SATHEESH KUMAR D</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
11	<b>Dr PRAKASH J</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
12	<b>Dr KOUSALYADEVI M</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
13	<b>Ms. Ragavi P R</b> 20115040- III B.TECH AIML, Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
16	<b>Mr. A.Ramesh</b> Parent Member F/o, Ms. Ragavi P R, III B.TECH AIML	Parent Member

- Dr.S.Shankar, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the eleventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **23.08.2022**, was approved.

- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors, Honors with specialization system in new regulation 2022.
- New regulation 2022 Curriculum and scheme and credit distribution were submitted to the panel for approval and it was approved.
- The whole curriculum and syllabi of Second semester subject alone is discussed for 2022 regulation.
- The following NPTEL course “Social Networks” are found to be equivalent to 1 course of the Professional Elective-IV list offered during VI semester, R2019 using Credit transfer for NPTEL course.

**The following are the recommendations put forth by the BoS members,**

1. In “Data structures using python”, Dr PRAKASH P, subject expert The syllabus suggested to reframe with either C or C++ programming language.  
The STL makes it simple for code and support low level operations, scientific computing and data intensive applications. Useful for placement to get strong base in programming skills
2. In “Data visualization lab”, the industry expert, H.Rajesh Kumar Suggested to use TABLEAU tool, “ where the user can make LIVE connections to different data sources like SQL, etc...Students free license is also offered.
3. In “DBMS”, the subject expert Dr. Sivaganesan, Suggested to include scenario based questions.
4. Dr MARIKANNAN M Subject expert, Suggested to include the subject “Smart Contracts and Solidity” in Block Chain Domain.
5. In “Foundations of Data science (Professional Elective)”, the subject expert Dr. Sivaganesan, Suggested to swap UNIT – 4 and UNIT- 5.

6. NPTEL course "Social Networks" is introduced as new course for the fast track students instead of Eighth semester professional elective-IV course and the course title/ code is "19AI8311 – Social Networks"
7. AICTE Leadership in Teaching Excellence (LITE) course is introduced as professional elective for the sixth, seventh and eighth semester for the third and final year students with three credits which inherits 50 internal marks from AICTE LITE and 50 marks as external practical exam. Newly introduced LITE courses are
  - 19IT6308 - Web Development – I
  - 19IT7307 - Web Development – II
  - 19IT8314 - Web Development - III
8. Japanese language course (N4 & N5) is offered to the students who are interested to learn Japanese language and the outcome of the Training shall help students to fetch better placement offers.
9. Value added course Infosys Spring Board is introduced in every semester, which includes various courses for the students to enhance their technical skills.
10. Skill Development courses introduced for member's approval.
  - 21LSZ401 – General Studies for Competitive Examinations
  - 21LSZ402 – Human Rights, Women's Rights and Gender Equality
  - 21LSZ403 – Indian Ethos and Human Values
  - 21LSZ404 – Indian Constitution and Political System
  - 21LSZ405 – Yoga for Human Excellence
11. Employability courses introduced for member's approval.
  - 22HE1071 – Universal Human Values
  - 22HE1072 – Entrepreneurship & Innovation
  - 22HE2071 – Design Thinking
  - 22HE2072 – Soft Skills - I

#### **General Recommendations:**

1. Dr Thulasimani K , University Nominee appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses
2. Dr Sivaganesan , Subject Expert Tutorial component shall be added to Programming / Problem oriented courses.(Eg. Operating Systems)
3. The Chairman, BoS and all members accepted to incorporate the above in the curriculum.



**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabi of 2019 with revision and updation for the VI semester was passed by the B.TECH. ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING board and permitted to move on Academic Council by the BoS members of CSE for the students admitted during the academic year 2022 - 2023 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the IV semester Courses of B.TECH. ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING board for the students admitted during the academic year 2022 - 2023 and onwards was suggested to move on to Academic Council.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MAXXX, 22PHXXX, 22CYXXX, 22HEXXX, and 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MEXXXX of Group A were introduced and passed by Mechanical Engineering board and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.
- Online certificate courses under NASSCOM undergone by the students are recommended for the additional credit and were suggested to move on to Academic Council.
- As discussed about the importance of online courses in the last Pre- BoS/ DAC meeting, students have completed ICT Learnathon online certificate course during the month of July 2021. BOS Members recommended the same and was suggested to move on to Academic Council.

The meeting ended with thanks to the Chair at 12.00 AM.

  
Chairman

(Board of studies)

**Chairman - BoS  
AIML - HiCE r**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File





# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 23. 02. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

The meeting of 6th board of studies of Regulation 2019 & Regulation 2022 for the B.Tech ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING Programme was conducted on 18.02.2023 at 10.00 am, in Hybrid Mode, Hindusthan College of Engineering and Technology. (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs))

### (I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	19AI8311 – Advanced Social Networks(NPTEL)	Introduced	100%
2	19IT6308 - Web Development - I	Introduced	100%
3	19IT7307 - Web Development - II	Introduced	100%
4	19IT8314 - Web Development - III	Introduced	100%
5	19AI6202 - Development of Machine Learning Models (IBM)	Introduced	100%
6	19AI6251 - Predictive Modeling (IBM)	Introduced	100%
7	19AI6306 - Foundations Of Data Science	Introduced	100%

**Overall Percentage of revision made in the BoS: 12%**

### (II) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
	2019	19AI8311 – Advanced Social Networks(NPTEL)	3
2	2019	19IT6308 - Web Development - I	3
3	2019	19IT7307 - Web Development - II	3
4	2019	19IT8314 - Web Development - III	3
5	2019	19AI6202 - Development of Machine Learning Models (IBM)	3
6	2019	19AI6251 - Predictive Modeling (IBM)	4
7	2019	19AI6306 - Foundations Of Data Science	
8	2022	22MA2103 - Differential Equations And Linear Algebra	4



9	2022	22PH2101 - Basics of Material Science	2
10	2022	22HE2151 - Effective Technical Communication	3
11	2022	22PH2151 - Physics for Circuit Engineering	3
12	2022	22IT2253 - Dynamic Web Design	2
13	2022	22ME2001 - Engineering Practices	2

### (III) Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ் மரபு / Essence of Indian Traditional Knowledge.
2.	22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)

### (IV) Non-credit Mandatory Courses

S.No.	Course Code with Name
1.	22MC2091/ 22MC2092 - தமிழ் மரபு / Essence of Indian Traditional Knowledge.

### (V) Additional Credit Courses Introduced:

S.No.	Course Code with Name
1.	22HE2071 - Design Thinking
2.	22HE2072 - Soft Skills -I


(VI) The following recommendations given by stakeholders are considered and incorporated.

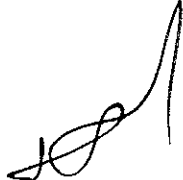
1. In “Data structures using python”, Dr PRAKASH P, subject expert The syllabus suggested to reframe with either C or C++ programming language. The STL makes it simple for code and support low level operations, scientific computing and data intensive applications. Useful for placement to get strong base in programming skills
2. In “DBMS”, the subject expert Dr. Sivaganesan, Suggested to include scenario based questions .
3. Dr MARIKANNAN M Subject expert , Suggested to include the subject “Smart Contracts and Solidity “ in Block Chain Domain.
4. In “Foundations of Data science (Professional Elective)”, the subject expert Dr. Sivaganesan, Suggested to swap UNIT – 4 and UNIT- 5.



**(VII). General Recommendations:**

<b>S. No</b>	<b>Suggestion Given by the BoS Experts</b>	<b>Action Taken</b>
1.	Dr Sivaganesan , Subject Expert Tutorial component shall be added to Programming / Problem oriented courses.(Eg. Operating Systems)	Will be incorporated
2	Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses).	Will be incorporated

  
**Chairman**  
**(Board of Studies)**  
**Chairman - BoS**  
**AIML - HiCET**

  
**Dean Academics**  
**Chairman - BoS**  
**AIML - HiCET**





**DEPARTMENT OF SCIENCE & HUMANITIES**

**Academic Year: 2022-2023(Odd)**

**BOARD OF STUDIES MEETING- MINUTES**

The meeting of the Ninth Board of Studies in Department of SCIENCE&HUMANITIES Undergraduate programme was conducted on **16 August 22** at 10.30 am through both Physical and Online Mode (Google Meet).

Venue : Library & **Link** : <https://meet.google.com/pnk-taht-vof>

**The following members were present:**

S.No	Name of the Person	Department	Position
1	<b>Dr. K.P.Uma</b> HoD of Science and Humanities, Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.:9442021062 E-mail: umamaths95@gmail.com	S&H	Chairman
2	<b>Dr.C.Porkodi</b> Professor, Department of Mathematics, PSG College of Technology, Mobile: 7550357410 E-mail: cpg.maths@psgtech.ac.in	Mathematics	University Nominee
3	<b>Dr.N.Muthukumarasamy,</b> Prof. and Head Department of Physics, Coimbatore Institute of Technology, Coimbatore – 641 014. Mobile No.9442954202 Vishnukutty2002@yahoo.co.in	Physics	Subject Expert
4	<b>Dr.Joseph Ponniah</b> Professor, Department of English National Institute of Technology, Tiruchirappalli. Mobile No :9487368155 E_mail:josephponniahr@gmail.com	English	Subject Expert /Member from QIS rated Institution
5	<b>Dr. P.A.Periasamy</b> Associate Professor in Chemistry, Dr.Mahalingam College of Engineering and Technology	Chemistry	Subject Expert

	Mobile: 7373227754 E-mail: pap@drmcet.ac.in		
6	<b>Dr. Lakshmana Gomathi Nayagam. V</b> Professor, Department of Maths National Institute of Technology, Tiruchirappalli Mobile No :9443881718 E_mail:velulakshmanan@nit.edu	Mathematics	Subject Expert /Member from QIS rated Institution
8	<b>Ms. A. Narmatha</b> Assistant Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9843268171 E-mail: narmadhakrishna@gmail.com	Mathematics	Member
9	<b>Dr.K.Kannan</b> Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9842257356 E-mail: Kannan.maths@hicet.ac.in	Mathematics	Member
9	<b>Dr. K. Sivakumar</b> Associate Professor of Physics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9842048708 E-mail:sivakphy@gmail.com	Physics	Member
10	<b>Ms. B. Jeyagowri</b> Assistant Professor of Chemistry Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9894245562 E-mail:gowrivasu2007@gmail.com	Chemistry	Member
11	<b>Ms. M. Narmatha</b> Assistant Professor of English Department of Science and Humanities Hindusthan College of Engineering and Technology Mobile No.: 9994334100 E-mail: marimuthunarmatha@gmail.com	English	Member
12	<b>Ms.S.Padma</b> Assistant Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9940900391 E-mail: Padma.maths@hicet.ac.in	Mathematics	Autonomous Coordinator
13	<b>Dr.T.Rojamary</b> Assistant Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032	Mathematics	Autonomous Coordinator

	Mobile No.: 9659471916 E-mail: rojamaury.maths@hicet.ac.in		
14	<b>Mr.A.Sivaganesh</b> <b>Asso.Analyst, WIPRO,</b> <b>Olympia Tech Park, Guindy, Chennai</b>	---	Alumni

The Chairman of BoS Dr.K.P. UMA greeted all the dignitaries for the meeting and introduced BoS members.

Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on **24.01.2022** and it was approved. Chairman also gave an outline of the scheme of new regulations R2022 and changes to be brought in the curriculum and syllabus discussed in the Department Advisory Committee (DAC) Meeting.

**The following are the Recommendations by the BoS members**

Essential English for Engineers – 40% revision has been made.

1. Physics for Non Circuit Engineering – 55% revision carried out as per the recommendation of Stakeholders.
2. Chemistry for Circuit Engineering – 20% revision done by the suggestion of expert.
3. Matrices and Calculus -30% revision has been implied with the suggestion of stakeholders.

**General Suggestions:**

1. The course Materials science shall be introduced during II semester for all the programmes, as the material science will be of much use for the students.
2. As per AICTE model curriculum at least a minimum credit of 5.5 may be allotted to physics based courses.
3. Physics For Electronics Engineering And Physics For Information Science courses can be offered for ECE, EEE, EIE branches and CSE, IT & AIML Branches respectively in the II Semester.
4. The Environmental Studies in the Even Semester for all the I Year Branches can be reframed and can be offered for Non Circuit branches in I Semester and for Circuit Branches in II Semester.
5. Applied Chemistry course and Chemistry for Biological Sciences course can be offered for MECH, AERO, CIVIL, AUTO, MCT branches and FT, CHEM, AGRI branches respectively in the II Semester
6. Some Short stories, Prose or Science articles may be included to improve their reading habits.
7. Course Code may be fixed according to the Programmes.
8. Universal Human Value Course may be brought in the category of Audit course.
9. Some topics may be given much importance by allotting more hours and it is not necessary that all units should have equal periods.

The following resolutions were made in the Board of Studies meeting,

1. The syllabi of Science and Humanities subjects of I semester , the scheme of II semester , Scheme of III and IV semester Mathematics papers for the new Regulation 2022 for the students admitted during the academic year 2022 - 2023 were passed and permitted to move on Academic Council during the BoS conducted on 16.08.2022.
2. The following courses are introduced in the regulation 2022 and passed in the board of studies of department of Science and Humanities and permitted to move on Academic Council during the BoS conducted on 16.08.2022.  
**Matrices And Calculus, Physics For Non Circuit Engineering, Chemistry For Circuit Engineering, English For Engineers, Universal Human Values, அறிவியல் தமிழ்/Indian Constitution , Entrepreneurship & Innovation (Common to all branches) (Common to all branches)**
3. The following courses are introduced in the regulation 2022 and passed in the board of studies of department of Electrical and Electronics Engineering, Computer Science Engineering and Information Technology- and permitted to move on Academic Council during the BoS conducted on 16.08.2022.
  - Basics Of Electrical Engineering for CSE & AIML, Fundamentals Of Electrical, Electronics and Instrumentation Engineering for EIE , Python Programming and Practices for AGRI, CHEM,FT,AERO, AUTO, CIVIL,MECH and Problem Solving Using C Programming for EEE, EIE, CSE, IT, AIML. Engineering Drawing for AGRI, BME, CHEM,,AERO, AUTO, CIVIL,MECH, MECT,IT,FT,EEE and Electron Devices for ECE
4. **Changes Recommended:** Course Objectives and Course Outcomes may be reframed for all the courses.

The meeting came to an end at 01.00p.m with the vote of thanks.

*Chairman*  
**Chairman**

**Chairperson (BoS)**

**Enclosure:**

Previous BoS meeting Minutes

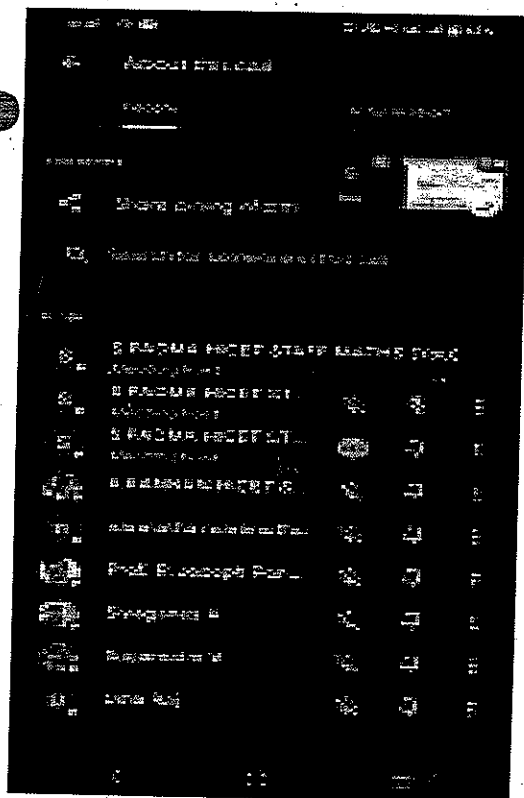
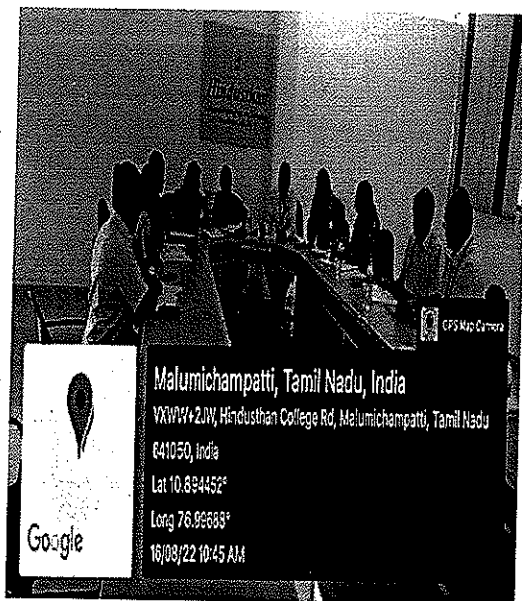
1. Action Taken Report.
2. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

*Comm*

**Chairman / Chairperson (BoS)**





**Academic Year : 2022-2023**

**Board of Studies Meeting- MINUTES**

The meeting of the Ninth Board of Studies in Department of SCIENCE&HUMANITIES Undergraduate programme was conducted on **16 August 22** at 10.30 am through both Physical and Online Mode (Google Meet).

**Venue : Library & Link : <https://meet.google.com/pnk-taht-vof>**

**The following members were present:**

S.No	Name of the Person	Department	Position
1	<b>Dr. K.P.Uma</b> HoD of Science and Humanities, Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.:9442021062 E-mail: umamaths95@gmail.com	S&H	Chairman
2	<b>Dr.C.Porkodi</b> Professor, Department of Mathematics, PSG College of Technology, Mobile: 7550357410 E-mail: cp.maths@psgtech.ac.in	Mathematics	University Nominee
3	<b>Dr.N.Muthukumarasamy,</b> Prof. and Head Department of Physics, Coimbatore Institute of Technology, Coimbatore – 641 014. Mobile No.9442954202 Vishnukutty2002@yahoo.co.in	Physics	Subject Expert
4	<b>Dr.Joseph Ponniah</b> Professor, Department of English National Institute of Technology, Tiruchirappalli. Mobile No :9487368155 E mail:josephponniahr@gmail.com	English	Subject Expert /Member from QIS rated Institution
5	<b>Dr. P.A.Periasamy</b> Associate Professor in Chemistry, Dr.Mahalingam College of Engineering and Technology Mobile: 7373227754 E-mail: pap@drmcet.ac.in	Chemistry	Subject Expert
6	<b>Dr. Lakshmana Gomathi Nayagam. V</b> Professor, Department of Maths National Institute of Technology, Tiruchirappalli Mobile No :9443881718 E mail:velulakshmanan@nit.edu	Mathematics	Subject Expert /Member from QIS rated Institution
8	<b>Ms. A. Narmatha</b> Assistant Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9843268171 E-mail: narmadhakrishna@gmail.com	Mathematics	Member
9	<b>Dr.K.Kannan</b> Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9842257356 E-mail: Kannan.maths@hicet.ac.in	Mathematics	Member
9	<b>Dr. K. Sivakumar</b> Associate Professor of Physics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9842048708 E-mail:sivakphy@gmail.com	Physics	Member
10	<b>Ms. B. Jeyagowri</b> Assistant Professor of Chemistry	Chemistry	Member

	Coimbatore-641 032 Mobile No.: 9894245562 E-mail: gowrivasu2007@gmail.com		
11	<b>Ms. M. Narmatha</b> Assistant Professor of English Department of Science and Humanities Hindusthan College of Engineering and Technology Mobile No.: 9994334100 E-mail: marimuthunarmatha@gmail.com	English	Member
12	<b>Ms.S.Padma</b> Assistant Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9940900391 E-mail: Padma.maths@hicet.ac.in	Mathematics	Autonomous Coordinator
13	<b>Dr.T.Rojamary</b> Assistant Professor of Mathematics Hindusthan College of Engineering & Technology Coimbatore-641 032 Mobile No.: 9659471916 E-mail: rojamarly.maths@hicet.ac.in	Mathematics	Autonomous Coordinator
14	<b>Mr.A.Sivaganesh</b> Asso.Analyst, WIPRO, Olympia Tech Park, Guindy, Chennai	---	Alumni

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Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 24.01.2022 and it was approved. Chairman also gave an outline of the scheme of new regulations R2022 and changes to be brought in the curriculum and syllabus discussed in the Department Advisory Committee (DAC) Meeting.

Also, the following points were discussed.

**ENGLISH BOARD:** Essential English for Engineers I for I semester has been introduced as an embedded course under the Regulation 22.

**Dr. Joseph Ponniah/ Subject Expert suggested the following points.**

1. Few Grammar topics may be reduced and reading contents may be added.
2. It is suggested to utilize the prescribed material to practice reading based exercise.

**General suggestion:**

1. Some Short stories, Prose or Science articles may be included to improve their reading habits.

**PHYSICS BOARD : PHYSICS FOR BIOLOGICAL SCIENCES** for semester I ( Agri , Chem & FT) & **PHYSICS OF MATERIALS** for semester I - Aero, Auto, Civil, Mech & Mcts have been introduced for semester I under the new regulation 2022.

**Dr. Muthukumarasamy/Subject Expert provide the following views.**

**PHYSICS FOR NONCIRCUIT ENGINEERING :**

1. In Unit – I, the topics Derivation of Einstein's coefficients, CO 2 laser and Classification of optical fibers based on materials can be removed.
2. In Unit – II, the topics Stress-strain diagram, Bending moment, Depression of a cantilever and Torsional stress and deformations can be removed.
3. In Unit – III, the topics Oscillatory motion, forced and damped oscillations, differential equation and its solution can be removed.
4. In Unit – III, the topics anti ferromagnetic materials, Ferrites and its applications can be removed.
5. In Unit – III, the topic plasma arcing can be removed.

**General Suggestions:**

1. The course Materials science shall be introduced during II semester for all the programmes, as the material science will be of much use for the students.
2. As per AICTE model curriculum at least a minimum credit of 5.5 may be allotted to physics based courses (Theory and laboratory courses).
3. PHYSICS FOR ELECTRONICS ENGINEERING and PHYSICS FOR INFORMATION SCIENCE courses can be offered for ECE, EEE, EIE branches and CSE, IT & AIML Branches respectively in the II Semester
4. Basics of Material Science may be offered for all branches in semester II.



**CHEMISTRY BOARD:** Chemistry for Circuit Engineering has been introduced for semester I under the new regulation 2022.

**Dr. Periyasamy / Subject Expert** provide the following views.

**Chemistry for Circuit Engineering**

1. In Unit I, specific examples of thermoplastics (PVC, Teflon) and thermosetting plastics
2. (Polyester and polyurethane) may be specified.
3. In Unit III, the topic protective coatings – paints can be removed as 6 hours will not be sufficient to complete the unit.
4. Instead of Nanomaterials Unit, the Spectroscopy unit can be introduced as students are studying about Nanomaterials in Physics course also.

**General Suggestions:**

1. Course Objective and Course Outcome must be reframed
2. The Environmental Studies in the Even Semester for all the I Year Branches can be reframed and can be offered for Non Circuit branches in I Semester and for Circuit Branches in II Semester.
3. Applied Chemistry course and Chemistry for Biological Sciences course can be offered for MECH, AERO, CIVIL, AUTO, MCT branches and FT, CHEM, AGRI branches respectively in the II Semester.

**MATHEMATICS BOARD:** Matrices and Calculus has been introduced for the semester I under new Regulation 2022. **Dr. Lakshmana Gomathinayagam, Subject Expert of Mathematics** provides the following proposal and suggest to imply the changes in the forthcoming academic year.

1. In unit II, Instead of Taylor's and Maclaurin's theorem, Taylor's and Maclaurin's series may be included.
2. In unit V, Stoke's and Gauss Divergence theorem verification may be included only for cubes.

**Dr. Porkodi, University Nominee** provides some suggestions for the next revision:

1. 4 credits can be given for all Mathematics papers.
2. 4 Mathematics papers may be planned for all the branches, as basic science and Mathematics are essential for Engineering courses.
3. No changes are required for the III and IV semester Mathematics papers of R 2019 for the academic year 2022-2023.

**General Suggestions:**

1. Course Objectives and Outcomes may be reframed for all the courses.
2. Course Code may be fixed according to the Programmes.
3. Universal Human Value Course may be brought in the category of Audit course.
4. Some topics may be given much importance by allotting more hours and it is not necessary that all units should have equal periods.

**Department specific Board of Studies Discussion / Suggestions:**

The following resolutions were made in the Board of Studies meeting,

1. The syllabi of Science and Humanities subjects of I semester, the scheme of II semester, Scheme of III and IV semester Mathematics papers for the students admitted during the academic year 2022 - 2023 were passed and permitted to move on Academic Council during the BoS conducted on 16.08.2022.
  2. **Changes Recommended:** Course Objectives and Course Outcomes may be reframed for all the courses.
- The meeting came to an end at 01.00p.m with the vote of thanks.

  
**Chairman / Chairperson (BoS)**

**Enclosure:**

Previous BoS meeting Minutes

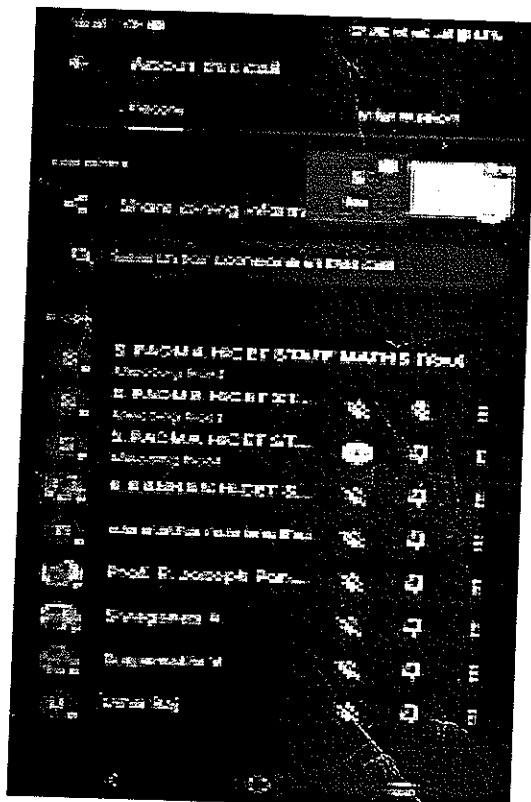
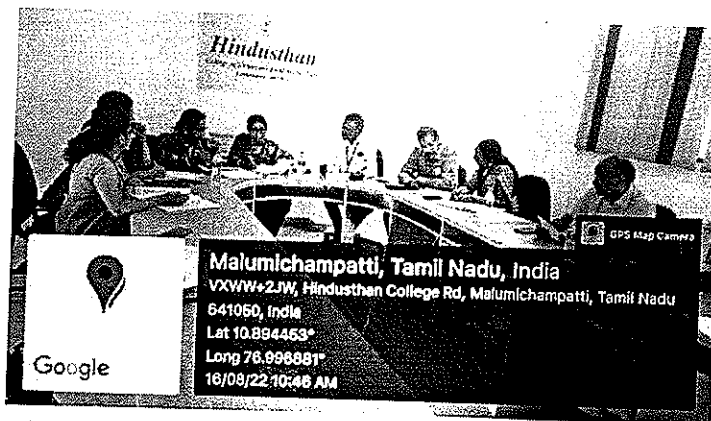
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**Copy:**

1. The Principal
2. Dean Academics

3. Controller of Examinations
4. All the Members of BoS
5. File

**Chairman / Chairperson (BoS)**



Date: 29.08.2022

**DEPARTMENT OF SCIENCE & HUMANITIES**

**Action Taken Report**

The meeting of the Ninth Board of Studies of Regulation 2022 for the Department of Science and Humanities was conducted on 16.08.2022 through both online mode and Physical mode. Based on those minutes, the following actions were taken.

**Syllabus related Recommendations: (For first Semester)**

S. No	Courses in which revision has been done	Action taken	Percentage of syllabus revision made
1.	Essential English For Engineers I (For All Branches)	Incorporated	40%
2	Physics for Non Circuit Engineering,	Incorporated	55%
3	Chemistry For Circuit Engineering (For Circuit Branches)	Incorporated	20%
4	Matrices And Calculus (For All Branches)	Incorporated	30%

**Newly Introduced Courses**

S.No	Regulation	Course Code with Name	Credits
1	2022	Matrices And Calculus	4
2	2022	Engineering Drawing (AGRI, CHEM, BME, AERO, AUTO, CIVIL, MECH, MECH, IT, FT, EEE)	3
3	2022	Basics Of Electrical Engineering ( CSE, AIML)	3
4	2022	Fundamentals Of Electrical, Electronics And Instrumentation Engineering (EIE)	3
5	2022	Electron Devices ( ECE)	3
6	2022	Physics For Non Circuit Engineering ( AGRI, CHEM, FT, AERO, AUTO, CIVIL, MECH, MECH)	3
7	2022	Chemistry For Circuit Engineering ( ECE, EEE, EIE, CSE, IT, AIML, BME)	3
8	2022	English For Engineers (Common To All Branches)	3
9	2022	Python Programming And Practices (AGRI, CHEM, FT, AERO, AUTO, CIVIL, MECH, MECH, ECE, BME)	3
10	2022	Problem Solving Using C Programming ( EEE EIE, CSE, IT AIML)	3
11	2022	UHV (Common To All Branches)	
12	2022	Entrepreneurship Innovation (Common To All Branches)	2
13	2022	அறிவியல் தமிழ்/ Indian Constitution (Common To All Branches)	0
14	2022	Complex Analysis and Differential Equations (AERO, AUTO, MECH, MECH)	4

15	2022	Differential Equations and Complex Variables ( AGRI)	4
16	2022	Fourier Analysis and Transforms (BME)	4
17	2022	Laplace Transforms and Differential Equations (ECE,EEE,EIE)	4
18	2022	Linear Algebra and Differential Equations (AIML,CSE,IT)	4
19	2022	Numerical Methods ( FT)	4
20	2022	Statistics and Numerical Methods (CIVIL)	4
21	2022	Transforms and Partial Differential Equations (CHEM)	4
22	2022	Environmental Studies (Common to all branches)	2
23	2022	Basics Of Material Science (Common to all branches except Mechatronics)	2
24	2022	Applied Mechanics (MCTS)	2
25	2022	Introduction To Chemical Engineering (CHEM)	3
26	2022	Principles and. Practices of Crop Production (AGRI	3
27	2022	Programming using C++ (ECE)	3
28	2022	Basics of Electrical and Communication Engineering (EEE)	3
29	2022	Basics of Electrical and Electronics Engineering (FT)	3
30	2022	Engineering Mechanics (AERO, CIVIL,AUTO,MECH)	3
31	2022	Physics For Circuit Engineering ( ECE, EEE, EIE, CSE, IT,AIML,BME)	3
32	2022	Chemistry For Biological Sciences (AGRI, CHEM &FT)	3
33	2022	Applied Chemistry (AERO, AUTO, CIVIL & MECH, MECT)	3
34	2022	Effective Technical Communication (Common to all branches)	3
35	2022	Python Programming and Practices (IT & CSE)	3
36	2022	Fundamentals Of Mechatronics (MCTS)	3
37	2022	Essentials Of C And C ++ Programming (BME)	3
38	2022	Electronic Devices and Circuits (EIE)	3
39	2022	Java Fundamentals (AIML & FOR OTHER IBM STUDENTS ONLY)	3
40	2022	Engineering Practices (Common to all branches)	2
41	2022	Design Thinking (Common to all branches)	2
42	2022	Soft Skills -I (Common to all branches)	1
42	2022	தமிழர்மரபு /Essence of Indian Traditional Knowledge	0
43	2022	NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)	0
44	2022	Applied Statistics and Queuing Theory (IT)	4
45	2022	Complex Analysis And Transforms (ECE,EEE,EIE)	4

46	2022	Discrete Mathematics And Graph Theory(CSE )	4
47	2022	Fourier Analysis and Numerical Techniques (AUTO, AERO)	4
48	2022	Fourier Series And Transforms (MECT, MECH)	4
49	2022	Mathematics For Machine Learning (AIML)	4
50	2022	Numerical Methods (CHEM)	4
51	2022	Transforms and Partial Differential Equations (CIVIL , FT)	4
52	2022	Transforms and Applications (AGRI)	4
53	2022	Statistics and Numerical Methods With R Program (BME)	4
54	2022	Applied Probability and Statistics For Agricultural Engineering (AGRI)	3
55	2022	Discrete Structures And Graph Theory (AIML)	3
56	2022	Numerical Methods (MECH)	3
57	2022	Operation Research ( FT )	3
58	2022	Probability, Statistics And Random Processes (ECE)	3
59	2022	Probability And Statistics With R Programming (AERO)	3
60	2022	Applied Statistics With R Programming & Queuing Theory (CSE)	3
61	2022	Statistics With R Programming Lab (CHEM)	3

### General Recommendations:

S.No.	Suggestion given in the BoS experts	Action taken
5.	<ol style="list-style-type: none"> <li>1. Course Objectives and Outcomes may be reframed for all the courses.</li> <li>2. Course Code may be fixed according to the Programmes.</li> <li>3. Universal Human Value Course may be brought in the category of Audit course.</li> <li>4. Additional Courses like Indian Constitution, Essence of Indian Traditional knowledge, Entrepreneurship &amp; Career Guidance for the new regulation, passed by the board of Science and Humanities are appreciated by the University Nominee.</li> <li>5. Some topics may be given much importance by allotting more hours and it is not necessary that all units should have equal periods.</li> <li>6. The Environmental Studies in the Even Semester for all the I Year Branches can be reframed and can be offered for Non Circuit branches in I Semester and for Circuit Branches in II Semester.</li> <li>7. Applied Chemistry course and Chemistry for Biological Sciences course can be offered for MECH, AERO, CIVIL, AUTO, MCT branches and FT, CHEM, AGRI branches respectively in the II Semester.</li> <li>8. Four Mathematics papers may be planned for all the branches, as basic science and Mathematics are essential for engineering courses</li> <li>9. The course Materials science shall be introduced during II semester for all the programmes, as the material science will be of much use for the students.</li> <li>10. As per AICTE model curriculum at least a minimum credit of 5.5 may be allotted to physics based courses. (Theory and laboratory courses).</li> <li>11. Physics for electronics engineering and physics for information science courses can be offered for ECE, EEE, EIE branches and CSE, IT &amp; AIML Branches respectively in the II Semester.</li> </ol>	Suggestion may be taken into consideration.

Chairman  
(BoS/S&H)

Dean - Academics





# Hindusthan College of Engineering and Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032



## DEPARTMENT OF SCIENCE & HUMANITIES

### MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: -Science & Humanities

Date: 12.02.2023

The Tenth Board of Studies meeting of regulation 2022 for the academic year 2022-2023 Even Semester was conducted on 10.02.2023 at 10.15 a.m. in Library, Hindusthan College of Engineering and Technology.

The following members were present:

S.No.	Name of the Member	Position
1.	<b>Dr. K.P.Uma</b> , HoD of Science and Humanities, Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9442021062, E-mail: umamaths95@gmail.com	Chairman
2.	<b>Dr.C.Porkodi</b> , Professor, Department of Mathematics, PSG College of Technology, Mobile: 7550357410 E-mail: cpg.maths@psgtech.ac.in	University Nominee
3.	<b>Dr.N.Muthukumarasamy</b> , Prof. and Head, Department of Physics, Coimbatore Institute of Technology, Coimbatore – 641 014. Mobile No. 9442954202, Vishnukutty2002@yahoo.co.in	Academic Expert - Physics
4.	<b>Dr. Joseph Ponniah</b> , Professor, Department of English National Institute of Technology, Tiruchirappalli. Mobile No : 9487368155, E-mail: josephponniahr@gmail.com	Academic Expert- English (from QIS rated Institution)
5.	<b>Dr. P.A.Periasamy</b> , Associate Professor in Chemistry, Dr. Mahalingam College of Engineering and Technology Mobile: 7373227754, E-mail: pap@drmcet.ac.in	Academic Expert- Chemistry
6.	<b>Dr. Lakshmana Gomathi Nayagam. V</b> , Professor, Department of Maths National Institute of Technology, Tiruchirappalli Mobile No : 9443881718, E-mail: velulakshmanan@nit.edu	Academic Expert- Mathematics (from QIS rated Institution)
7.	<b>Ms. A. Narmatha</b> , Assistant Professor of Mathematics Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9843268171, E-mail: narmadhakrishna@gmail.com	Member
8.	<b>Dr.K.Kannan</b> , Professor of Mathematics Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9842257356, E-mail: Kannan.maths@hiet.ac.in	Member



9.	<b>Dr. K. Sivakumar</b> , Associate Professor of Physics Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9842048708, E-mail: sivakphy@gmail.com	Member
10.	<b>Ms. B. Jeyagowri</b> , Assistant Professor of Chemistry Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9894245562, E-mail: gowrivasu2007@gmail.com	Member
11.	<b>Ms. M. Narmatha</b> , Assistant Professor of English Department of Science and Humanities, Hindusthan College of Engineering and Technology Mobile No.: 9994334100, E-mail: marimuthunarmatha@gmail.com	Member
12.	<b>Ms. S. Padma</b> , Assistant Professor of Mathematics Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9940900391, E-mail: Padma.maths@hicet.ac.in	Autonomous Coordinator
13.	<b>Dr. T. Rojamy</b> , Assistant Professor of Mathematics Hindusthan College of Engineering & Technology, Coimbatore-641 032 Mobile No.: 9659471916, E-mail: rojamy.maths@hicet.ac.in	Autonomous Coordinator
14.	<b>Mr. A. Sivaganesh</b> , Asso. Analyst, WIPRO, Olympia Tech Park, Guindy, Chennai	Alumni Member

- The Chairman-BoS greeted all the members.
- Chairman presented – Minutes of Previous semester Board of Studies , Action taken report and current semester Department Advisory committee meeting.
- Also chairman presented the existing Curriculum and syllabus of I semester and proposed Curriculum & Syllabus of forthcoming second semester for the perusal of Academic experts and Members.
- Based on the feedback of the curriculum & syllabus from the stakeholders, it is found that they are satisfied with the syllabus.

By considering all the above, the following recommendations were proposed regarding the newly introduced syllabus of II semester by the Experts and BoS members:

**1. 22MA2101- COMPLEX ANALYSIS AND DIFFERENTIAL EQUATIONS (AERO, AUTO, MECH, MECHS) & 22MA2102 – DIFFERENTIAL EQUATIONS AND COMPLEX VARIABLES (AGRI) –**

- Since both courses have same content with different order, they may be merged as a single course and Title may be named as Differential Equations and Complex Analysis and Course code 22MA2101.
- In the above mentioned course, contour integration for unit circle may be included in the V unit.





2. **22MA2104 – LAPLACE TRANSFORMS AND DIFFERENTIAL EQUATIONS (ECE,EEE & EIE)–**

- Order of the units may be changed and title it as Differential Equations and Laplace Transforms.
- Also Definition of Dirac delta and Unit Step function may be included in the unit of Laplace Transforms.

3. **22MA2105 – LINEAR ALGEBRA AND DIFFERENTIAL EQUATIONS (AIML, CSE & IT)**

- Order of the units may be changed and title it as Differential Equations and Linear Algebra.
- Also reframe the unit vector spaces.
- Remove Sequence & Series and instead of it Inner product space may be included.

4. **22MA2106 NUMERICAL METHODS (FT) -**

- Numerical Methods may be handled in III semester and instead of it Partial Differential Equations, Fourier series & Transforms may be taught for them.

5. **22MA2107 STATISTICS AND NUMERICAL METHODS (CIVIL) -**

- Statistics and Numerical Methods may be handled in III semester and instead of it Partial Differential Equations, Fourier Series & Transforms may be taught for them.

6. **22MA2108 - TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS (CHEMICAL)**

- Title may be considered as Fourier analysis and Laplace Transforms.
- Also Definition of Dirac delta and Unit Step function may be included in the unit of Laplace Transforms.

It is decided to reframe Mathematics courses and their codes as follows based on the aforementioned minutes.

22MA2101	DIFFERENTIAL EQUATIONS AND COMPLEX ANALYSIS (AERO, AGRI, AUTO, MECH, MECT)
22MA2102	DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORM (common to ECE, EEE & EIE)
22MA2103	DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA (AIML, CSE, IT)
22MA2104	FOURIER ANALYSIS AND LAPLACE TRANSFORMS (CHEM)
22MA2105	PARTIAL DIFFERENTIAL EQUATION, FOURIER SERIES AND TRANSFORMS (BME, CIVIL & FT)

7. **22HE2151 EFFECTIVE TECHNICAL COMMUNICATION (Common to all branches)**

- Reading comprehension may be added and exclusive reading text can be prescribed to teach vocabulary effectively.

8. **22PH2151 – PHYSICS FOR CIRCUIT ENGINEERING (ECE, EEE, EIE, CSE, IT, AIML, BME)**



- In Unit – I, Use common letter for word fiber.
- In Unit – II, the topics Derivation of Young's modulus of the material modified as Determination of Young's modulus of the material.
- In Unit – III, the topics Michelson interferometer can be added.
- In Unit – V, the topics Properties of Ultrasonic waves may be added.
- In Unit – V, the topics viscous force – co-efficient of viscosity can be removed.
- The course title shall be changed to “**Physics for Circuit Engineering Programme**”.

**9. 22CY 2151 – CHEMISTRY FOR BIOLOGICAL SCIENCES (AGRI, CHEM & FT) –**

- The Course title shall be changed to “**Chemistry for Engineers**”
- Instructional hours for theory and lab may be given separately

**10. 22CY2151 – APPLIED CHEMISTRY (AERO, AUTO, CIVIL & MECH, MECT) –**

- Instructional hours for theory and lab may be given separately

**11. 22CY2101 – ENVIRONMENTAL STUDIES (Common to all branches except CSE, IT & AIML)**

- The credit allotted and the instructional hours are not coinciding. The instructional hours shall be changed from 3 hrs to 2 hrs
- Latest edition books shall be included in the reference books.

**12. 22PH2101 – BASICS OF MATERIAL SCIENCE (Common to all branches except Mechatronics)**

- In Unit – III, the topics Carrier concentration derivation – Fermi level – Variation of Fermi level with temperature can be removed.
- In Unit – III, the topics extrinsic semiconductor – n type and p type Semiconductor – Light Emitting Diode can be added.
- In Unit – V the topics glass forming ability of alloys, Preparation of NiTi alloy Preparation and various techniques can be removed.
- In Unit – V, the topics Super elasticity and Hysteresis can be added.

It is decided to conduct the course Environmental studies for CSE, IT & AIML during their 6<sup>th</sup> semester instead of second semester and the same has been ratified by the committee.

**Employability Enhancement Courses Introduced :**

- ✓ **22HE 2072 – SOFT SKILLS & APTITUDE I**

It is highly esteemed by the Alumni as they are the **skill development** courses which will be highly beneficial for the student community to enhance their **employability** opportunities.

**Mandatory Courses Introduced :**

- ✓ **22MC2091-**

OR



✓ 22MC2092 – ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE

✓ 22MC 2093 NCC \*/NSS / YRC / Sports / Clubs / Society Service

Above courses were highly valued by University Nominee as those courses will definitely impart the knowledge of tradition and culture among the student community.

### **General Recommendations:**

- *No revision or updation required in existing IV semester syllabus of R 2019.*
- *Existing and also proposed Employability enhancement course and Mandatory courses are appreciable and recommended to continue the same.*
- *All Text and Reference books may be with the latest edition.*

### **The following resolutions were made in the Board of Studies meeting,**

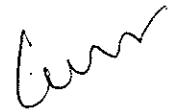
- The curriculum and syllabi for the II semester were passed by the Science and Humanities board and permitted to move on Academic Council by the BoS members for the students admitted during the academic year 2022 and onwards.
- The curriculum and syllabi of fourth semester Mathematics papers of R 2019 need not require any modifications and the same is approved to move on to Academic Council.
- **Syllabus of Service courses** - 22CH2202 – Introduction to Chemical Engineering by Chemical Engineering department, 22AG2201 – Principles and Practices of Crop Production by Agriculture Engineering Department, 22EE2101 – Basics of Electrical and Electronics Engineering & 22EE2201- Basics of Electrical and Communication Engineering by the Electrical and Electronics Engineering department, 22ME2101 – Engineering Mechanics and 22ME2001 – Engineering Practices by Mechanical Engineering Department, 22IT2201 – Web Technology by the department of Information Technology, 22IT2251 – Python Programming and Practices, 22MT 2251 – Fundamentals of Mechatronics Engineering, 22PH2102 – Applied Mechanics by the department of Mechatronics Engineering, 22CS2152 – Essentials of C and C++ programming Programming using C and C++ and 22CS2253 – Java Fundamentals (for AIML and other IBM students )by the Computer Science Engineering Department , 22EI2251 – Electronic Devices and Circuits by the department of Electronics and Instrumentation Engineering were passed and permitted to move on Academic Council by the BoS members of Science and Humanities for the students admitted during the academic year 2022-2023 and onwards.

*As discussed about the importance of online courses in the last BoS/ DAC meeting, majority of the first year Students have completed ICT Penetration online certificate course during the month of*



*October 2022. BOS Members recommended the same and were suggested to move on to Academic Council.*

The meeting ended with thanks to the Chair at 12.30.p.m



Chairman

(Board of studies)

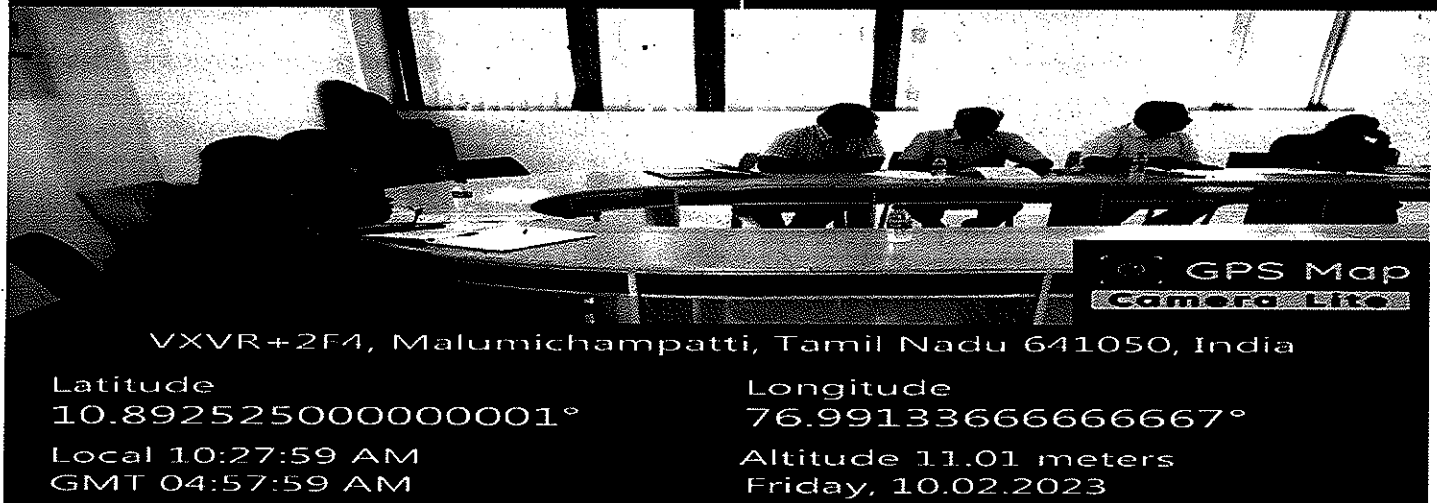
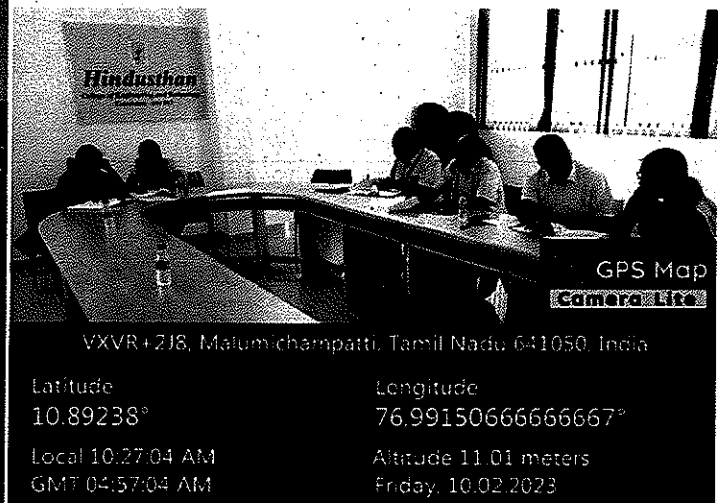
**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

**Chairman - BoS  
S&H - HiCET**



Date : 17.02.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: SCIENCE & HUMANITIES

The meeting of TENTH board of studies of Regulation 2019 & Regulation 2022 for the Department of SCIENCE & HUMANITIES was conducted on 10.02.2023 at 10.15A.M in Library, Hindusthan College of Engineering and Technology.

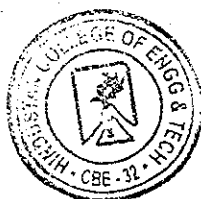
### (I) Syllabus Revision for the Regulations 2019

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	NIL	NIL	---

### (II) Syllabus Related Recommendations for II semester - R2022

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1	22MA2102 - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORM ( common to ECE, EEE & EIE )	Incorporated	20%
2	22MA2103 - DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA (AIML, CSE, IT)	Incorporated	20%
3	22MA2104 - FOURIER ANALYSIS AND LAPLACE TRANSFORMS (CHEM)	Incorporated	80%
4	22MA2105 - PARTIAL DIFFERENTIAL EQUATION, FOURIER SERIES AND TRANSFORMS ( BME, CIVIL & FT)	Incorporated	80%
5	22HE2151 - EFFECTIVE TECHNICAL COMMUNICATION (Common to all branches)	Incorporated	30%
6	22PH2151 - PHYSICS FOR CIRCUIT ENGINEERING (ECE, EEE, EIE, CSE, IT, AIML, BME)	Incorporated	20%
7	22CY 2151 - CHEMISTRY FOR ENGINEERS (AGRI, CHEM & FT)	Incorporated	40%
8	22CY2151 - APPLIED CHEMISTRY (AERO, AUTO, CIVIL & MECH, MECT)	Incorporated	40%
9	22PH2101 - BASICS OF MATERIAL SCIENCE (Common to all branches except Mechatronics)	Incorporated	40%

Overall Percentage of revision made in the BoS: 56.3%



**(III) New Courses Introduced:**

S. No	Regulation	Course Code with Name	Credits
1	2022	22MA2104 - FOURIER ANALYSIS AND LAPLACETRANSFORMS (CHEM)	4
2	2022	22MA2105 - PARTIAL DIFFERENTIAL EQUATION, FOURIER SERIES AND TRANSFORMS (BME, CIVIL & FT)	4
3	2022	22HE2072 – SOFT SKILLS AND APTITUDE - I	1

**(IV) Mandatory Courses**

S.No.	Course Code with Name
NIL	

**(V) Non-credit Mandatory Courses – Newly Introduced**

S.No.	Course Code with Name
1.	22MC2091 - □□□□□□□□□□
2.	22MC2092 - Essence of Indian Traditional Knowledge
3	22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service -Enrollment (Common)

**(VI) Additional Credit Courses Introduced:**

S.No.	Course Code with Name
NIL	

(VII) The following recommendations given by stakeholders are considered and incorporated.

- Few of the above mentioned 8 different Mathematics papers may be combined.
- For Civil department, Statistics and Numerical Methods may be handled in III semester and instead of it Partial Differential Equations, Fourier Series & Transforms may be taught for them.
- For Food Technology, Numerical Methods may be handled in III semester and instead of it Partial Differential Equations, Fourier series & Transforms may be taught for them.

**(VIII). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	<ul style="list-style-type: none"> <li>• No revision or updating required in existing IV semester syllabus of R 2019.</li> </ul>	Considered
2	<ul style="list-style-type: none"> <li>• Existing and also proposed Employability enhancement course and Mandatory courses are appreciable and recommended to continue the same.</li> </ul>	Considered
3.	<ul style="list-style-type: none"> <li>• All Text and Reference books may be with the latest edition.</li> </ul>	Considered



**Chairman - BoS**  
**S&H - HICET**

*[Signature]*  
**Chairman**  
**(Board of Studies)**  
**Dr. K. P. UMA**  
**Prof & Head**  
**Department of Science and Humanities**



**Hindusthan College of Engineering And Technology**  
Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Valley Campus, Pollachi Highway, Coimbatore



Date: 23.08.22

**MINUTES OF BOS MEETING**

Name of the Department: ME Communication Systems and Applied Electronics

The Tenth Board of Studies meeting for ME Communication Systems and Applied Electronics for the academic year odd 2022-23 was conducted on 23.08.2022 at 02.00 pm in Google meet (<https://meet.google.com/rho-eufr-awy>).

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.P.Vijayalakshmi Professor Hindusthan College of Engineering and Technology	ECE Dept	Chairperson
2.	Dr.S.J.Thiruvengadam, Professor and Dean(Academics), Thiagarajar College of Engineering, Madurai 625 015	ECE Dept	University Nominee
3.	Dr.C.Shanthi Professor & Head of the Department, Govt. College of Technology, Coimbatore-641 013.	ECE Dept	Subject Expert
4.	Dr.Krishaveni V, Professor (CAS) and Head, PSG College of Technology, Coimbatore-641 004.	ECE Dept	Subject Expert
5.	Ms.T.Vidhya Sri, Director, Institute Relations and HR, Adroit technologies Innovation Solutions (IBM Partner), Coimbatore.	Director	Industry Expert (IBM Partner)
6.	Dr.R.Michaelraj Kingston, Professor, Sri Eshwar College of Engineering, Coimbatore.	ECE Dept	Alumni
7.	Dr.M.Pachiyaannan,	ECE Dept	Member from





	Associate Professor Vignan's foundation for Science, Technology and Research, Guntur, Andhra Pradesh		QIS rated Institution
8.	Dr.B.Paulchamy, Professor Hindusthan Institute of Technology	ECE Dept	Member from sister concern
9.	Dr.R.Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
10.	Dr.K.Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr.P.Geetha Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member /Autonomous Coordinator
12.	Dr.J.Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Mr.Naveen R IV ECE B Hindusthan College of Engineering and Technology	ECE Dept	Student Member
14.	Ms.Anamol A II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member
15.	Ms.Hariniya S II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the tenth Board of Studies meeting.

The following are the recommendations put forth by the BoS members,

- 1.Additionals electives can be introduced in the curriculum and syllabus of ME Applied Electronics.

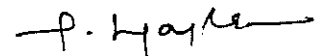
The following resolutions were made in the Board of Studies meeting,

**For Regulations 2020 M.E Applied Electronics and M.E Communication Systems:**



- The curriculum and syllabi of R2020 for all semesters of **M.E Applied Electronics and M.E Communication Systems program** for the students admitted during the academic year 2021 – 2022 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.

  
**Chairman**  
**(Board of Studies)**

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

*note*  
 No meaningful change for the  
 for the C/E/A. This has  
 referred

BOS & AIN  
22-23 - 000  
PGL missing

Date: 13.02.23

**MINUTES OF BOS MEETING**

Name of the Department: ME Communication Systems

The Eleventh Board of Studies meeting for ME Communication Systems for the academic year even 2022-23 was conducted on 11.02.2023 at 10.00 am in Google meet (<https://meet.google.com/bxp-dszw-fah>).

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.P.Vijayalakshmi Professor Hindusthan College of Engineering and Technology	ECE Dept	Chairperson
2.	Dr.S.J.Thiruvengadam, Professor and Dean(Academics), Thiagarajar College of Engineering, Madurai 625 015	ECE Dept	University Nominee
3.	Dr.C.Shanthi Professor & Head of the Department, Govt. College of Technology, Coimbatore-641 013.	ECE Dept	Subject Expert
4.	Dr.Krishaveni V, Professor (CAS) and Head, PSG College of Technology, Coimbatore-641 004.	ECE Dept	Subject Expert
5.	Ms.T.Vidhya Sri, Director, Institute Relations and HR, Adroit technologies Innovation Solutions (IBM Partner), Coimbatore.	Director	Industry Expert (IBM Partner)
6.	Dr.R.Michaelraj Kingston, Professor, Sri Eshwar College of Engineering, Coimbatore.	ECE Dept	Alumni
7.	Dr.M.Pachiyaannan, Associate Professor Vignan's foundation for Science, Technology and Research, Guntur, Andhra Pradesh	ECE Dept	Member from QIS rated Institution





8.	Dr.B.Paulchamy, Professor Hindusthan Institute of Technology	ECE Dept	Member from sister concern
9.	Dr.R.Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
10.	Dr.K.Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr.P.Geetha Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member /Autonomous Coordinator
12.	Dr.J.Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Ms.Keerthana K I ME CS Hindusthan College of Engineering and Technology	ECE Dept	Student Member
14.	Ms.Archana P I ME AE Hindusthan College of Engineering and Technology	ECE Dept	Student Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.

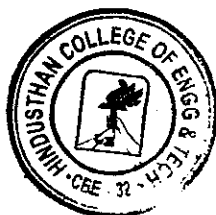
The following are the recommendations put forth by the BoS members,

- The syllabus is revised for Machine Learning for ME Communication Systems.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2020 M.E Communication Systems:**

- The curriculum and syllabi of R2020 for all semesters of **M.E Communication Systems program** for the students admitted during the academic year 2021 – 2022 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.







• % revision in the syllabus (ME CS)

S.No	Subject	% revision
1	20CMX312R-Machine Learning	50%

• % revision in the curriculum (ME CS)

Total Number of courses passed in this BOS	24
No. of courses revised	1
% revision in courses	04%

The meeting ended with thanks to the Chair at 03.30 P.M.

*P. Hayka*  
Chairman

(Board of Studies)  
**Chairman - BoS**  
**ECE - HICET**

Enclose:

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

Copy:

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order.

2. The second part of the document is a list of the topics that were discussed at the meeting. The topics are listed in alphabetical order.

3. The third part of the document is a list of the actions that were taken at the meeting. The actions are listed in alphabetical order.

**Action Taken Report**

The Eleventh Board of Studies meeting for ME Communication Systems for the academic year even 2022-23 was conducted on 11.02.2023 at 10.00 am in Google meet (<https://meet.google.com/bxp-dszw-fah>).

**Syllabus related Recommendations:**

S. No	Suggestions given by BoS experts	Action taken
1.	Syllabus of the course Machine Learning revamped	Changes incorporated

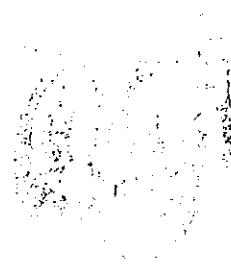


CHAIRPERSON  
BoS/ECE

**Chairman - BoS  
ECE - HiCET**



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10000 - 10000 - 10000



Date: 13.02.23

**MINUTES OF BOS MEETING**

Name of the Department: ME Applied Electronics

The Eleventh Board of Studies meeting for ME Applied Electronics for the academic year even 2022-23 was conducted on 11.02.2023 at 10.00 am in Google meet (<https://meet.google.com/bxp-dszw-fah>).

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.P.Vijayalakshmi Professor Hindusthan College of Engineering and Technology	ECE Dept	Chairperson
2.	Dr.S.J.Thiruvengadam, Professor and Dean(Academics), Thiagarajar College of Engineering, Madurai 625 015	ECE Dept	University Nominee
3.	Dr.C.Shanthi Professor & Head of the Department, Govt. College of Technology, Coimbatore-641 013.	ECE Dept	Subject Expert
4.	Dr.Krishaveni V, Professor (CAS) and Head, PSG College of Technology, Coimbatore-641 004.	ECE Dept	Subject Expert
5.	Ms.T.Vidhya Sri, Director, Institute Relations and HR, Adroit technologies Innovation Solutions (IBM Partner), Coimbatore.	Director	Industry Expert (IBM Partner)
6.	Dr.R.Michaelraj Kingston, Professor, Sri Eshwar College of Engineering, Coimbatore.	ECE Dept	Alumni
7.	Dr.M.Pachiyaannan, Associate Professor Vignan's foundation for Science,Technology and Research,	ECE Dept	Member from QIS rated Institution





	Guntur, Andhra Pradesh		
8.	Dr. B. Paulchamy, Professor Hindusthan Institute of Technology	ECE Dept	Member from sister concern
9.	Dr. R. Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
10.	Dr. K. Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr. P. Geetha Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member /Autonomous Coordinator
12.	Dr. J. Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Ms. Keerthana K IME CS Hindusthan College of Engineering and Technology	ECE Dept	Student Member
14.	Ms. Archana P IME AE Hindusthan College of Engineering and Technology	ECE Dept	Student Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2020 M.E Applied Electronics:**

- The curriculum and syllabi of R2020 for all semesters of **M.E Applied Electronics program** for the students admitted during the academic year 2021 – 2022 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.



*P. Haykal*  
Chairman

(Board of Studies)

**Chairman - BoS  
ECE - HiCET**





**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File





**Hindusthan College of Engineering And Technology**  
Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Othakalmandapam Post, Coimbatore  
Department of Electronics and Communication Engineering

Date: 15.02.2023

**Action Taken Report**

The Eleventh Board of Studies meeting for ME Applied Electronics for the academic year even 2022-23 was conducted on 11.02.2023 at 10.00 am in Google meet (<https://meet.google.com/bxp-dszw-fah>).

**Syllabus related Recommendations:**

S. No	Suggestions given by BoS experts	Action taken
1.	Nil	

  
CHAIRPERSON  
BoS/ECE

**Chairman - BoS  
ECE - HiCET**



22-23  
BOS FIR  
even

22-23  
BOS FIR  
even

Date: 10.07.21

**MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **Electrical and Electronics Engineering**

The Second Board of Studies meeting for the ME Embedded Systems program of Regulation 2020 for the academic year 2021-2023 was conducted on 10.07.21 at 11.30 am in ONLINE mode through Google Meet.

The following members were present.

S. No	Name of the Person	Department	Position
1	Dr.N.P.Ananthamoorthy	Professor / Head, Electrical and Electronics Engineering Hindusthan College of Engineering and Technology	Chairman
2	Dr. R.L. Josephine	Assistant Professor, Department of Electrical and Electronics Engineering, National Institute of Technology, Tiruchirappalli-620 015.	University Nominee
3	Dr. L. Ashok Kumar	Professor, Department of Electrical and Electronics Engineering, PSG College of Technology, Coimbatore - 641 004.	Academic Expert
4	Dr. S. Balamurugan	Professor & Chairperson, Electrical and Electronics Engineering, Amrita Vishwa Vidyapeetham School of Engineering, Coimbatore-641 112	Academic Expert
5	Er. R. Shantharam	Managing Director, Electronic Signals & Controls, New No.7, V.K.R. Nagar, Vilankurichi Road, Coimbatore - 641 004.	Industry Expert
6	Mr. R. ShanmughaPrabu	Branch Manager, Sew- Eurodrive India Private Limited, 687, Sri Sakthivel Towers, 1 st Floor, Trichy Road, Ramanathapuram, Coimbatore- 641 045.	Alumni Member
7	Dr. K.Mathan	Associate Professor, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology.	Member

8	Dr. R. RajeshKanna	Associate Professor, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology.	Member
9	Mr. M.P. Viswanathan	Assistant Professor, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology.	Member
10	Mr. G. Muthuram	Assistant Professor, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology.	Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees, and all the internal members for the Second Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies/ Department Advisory Committee (DAC).
- The feedback received on the curriculum by the stakeholders was presented.
- The Chairman conveyed to the members that, based on the Anna University Curriculum, the Curriculum and syllabus for III – IV semesters of M.E, Embedded Systems was framed.

#### **Comments by Experts:**

1. Chairman presented and requested the board members to accept the syllabi of Regulation 2020 for III and IV semester subjects which were passed by Electrical and Electronics Engineering.

#### **The following resolutions are made in the Board of Studies meeting**

- In almost all the courses, changes have been done as per the current needs.
- All the courses in the curriculum are framed based on the Employability, Skill development, and Entrepreneurship context to meet the industry needs.
- The curriculum and syllabus of Regulation 2020 for I and II semester subjects were reviewed and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2021-2022 onwards.
- The curriculum and syllabus of Regulation 2020 for III and IV semester subjects were introduced and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2020-2021 onwards.

The meeting ended with thanks by the Chairman at 12.30 P.M



(Board of Studies)  
**Chairman - BoS**  
**EEE - HICET**

Enclose:

1. Pre-Board of studies/ DAC meeting Minutes
2. Curriculum and Syllabi

Copy:

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File







# Hindusthan College of Engineering and Technology

(An Autonomous Institution, Approved by AICTE, New Delhi,  
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Valley Campus, Pollachi Highway, Coimbatore – 641032



## Department of Electrical and Electronics Engineering

Date: 10.07.2021

### Action taken report on BoS

Action taken report for the Second Board of Studies meeting for ME Embedded Systems Postgraduate programme of Regulation 2020 for the academic year 2021-2022 was conducted on 10.07.2021 at 11.30 AM in Online Mode.

### New courses Introduced:

S.No.	Regulation	Course code with name	Credits
1	2020	20ES3301-Smart Sensors	3
2	2020	20ES3302-Embedded Networking and Automation of Electrical System	3
3.	2020	20ES3303-Soft Computing and Optimization Techniques	3
4.	2020	20ES3304-Wireless and Mobile Communication	3
5.	2020	20ES3305-Electric Vehicles and Power Management	3
6.	2020	20ES3306-Distributed Embedded Computing	3
7.	2020	20ES3307-Multicore Architecture	3
8.	2020	20ES3901-DISSERTATION I	10
9.	2020	20ES4901-DISSERTATION II	15
10	2020	20ES3401-Smart Grid	3
11	2020	20ES3402- Nano Electronics	3

**General Recommendations:**

BOS Members Suggestions			
Subject Name	Suggestions	Explanation / Action Taken	Remarks
For I - IV Semester subjects	The curriculum and syllabus of these semesters were reviewed and accepted without any changes	Nil	

  
Chairman

Board of Studies  
**Chairman - BoS**  
**EEE - HICET**

# ***Hindusthan College of Engineering and Technology***

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date: 18.02.2023

## **MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **M.E COMPUTER SCIENCE AND ENGINEERING**

The Board of Studies meeting for the M.E CSE program of Regulation 2020 for the academic year 2022-2023 was conducted on 18.02.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: [meet.google.com/vkk-mdwf-yjs](https://meet.google.com/vkk-mdwf-yjs)).

The following members were present:

S. No.	Name of the Member	Position
1	<b>Dr Shankar S</b> <b>Professor &amp; HOD</b> Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology	Chairman
2	<b>Dr Thulasimani K</b> Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007	University Nominee
3	<b>Dr Sudha Sadasivam G</b> Professor Department of Computer Science and Engineering, PSG College of Technology, Coimbatore.	Subject Expert
4	<b>Dr Surendiran B</b> Assistant Professor Dept of Computer Science and Engineering, National Institute of Technology, Puducherry.	Subject Expert
5	<b>Dr PRAKASH P</b> Associate Professor School of Computer Science and Engineering, VIT Chennai.	Member from QIS rated Institution
6	<b>Mr Rajesh Kumar H</b> Founder BuzzTech Training Institute, Coimbatore.	Industry Expert
7	<b>Mr Manuraj Rajamanikandan</b> Non-Functional Consultant Cognizant, Kochi, Kerala.	Alumni
8	<b>Dr .JAMEER BASHA A</b> <b>Professor &amp; HOD</b> Department of Computer Science and Engineering,	Member from sister concern

	Hindusthan Institute of Technology	
9	<b>Ms SATHYA S</b> Assistant Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Autonomous Coordinator & BoS Member
10	<b>Dr SATHEESH KUMAR D</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
11	<b>Dr PRAKASH J</b> Associate Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
12	<b>Mr Mahesh D</b> Assistant Professor Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Member
13	<b>Mr. Sriram S</b> 19104145 - IV BE CSE C Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
14	<b>Mr. M.Kamalesh Kumar</b> 20104102 - III BE CSE B Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology, Coimbatore-641032	Student Member
15	<b>Mr Sivanandhan P</b> Parent Member F/o. Mr. Sriram IV BE CSE C	Parent Member
16	<b>Mr.Mohan Kumar P</b> Parent Member F/o, Mr.Kamalesh Kumar,III BE CSE B	Parent Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees, and all the internal members for the Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies/ Department Advisory Committee (DAC).
- The feedback received on the curriculum by the stakeholders was presented.
- The Chairman conveyed to the members that, based on the Anna University Curriculum, the Curriculum and syllabus for I – IV semesters of M.E, CSE was framed.

**Comments by Experts:**

1. Chairman presented and requested the board members to accept the syllabi of Regulation 2020 for I to IV semester subjects which were passed by Computer Science and Engineering.

**The following resolutions are made in the Board of Studies meeting**

- In almost all the courses, changes have been done as per the current needs.
- All the courses in the curriculum are framed based on the Employability, Skill development, and Entrepreneurship context to meet the industry needs.
- The curriculum and syllabus of Regulation 2020 for I to IV semester subjects were reviewed and permitted to move on Academic Council by the BoS members of M.E CSE for the students admitted during the academic year 2022-2023 onwards.
- The Board Members Emphasized to include new Text books in the Syllabus.

The meeting ended with thanks by the Chairman at 12.30 P.M

  
Chairman

(Board of Studies)  
Chairman - BoS  
CSE - HiCET

**Enclose:**

1. Pre-Board of studies/ DAC meeting Minutes
2. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS



# Hindusthan College of Engineering and Technology

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Valley Campus, Pollachi Highway, Coimbatore – 641032



## Department of Computer Science and Engineering

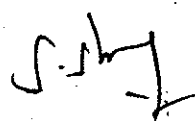
Date: 18.02.2023

### Action taken report on BoS

Action taken report for the Board of Studies meeting for ME CSE Post graduate programme of Regulation 2020 for the academic year 2022-2023 was conducted on 18.02.2023 at 10.00 AM in Hybrid Mode. (Google Meet: meet.google.com/vkk-mdwf-yjs).

### General Recommendations:

BOS Members Suggestions			
Subject Name	Suggestions	Explanation / Action Taken	Remarks
For I - IV Semester subjects	The curriculum and syllabus of all semesters were reviewed and accepted without any changes	Nil	



Chairman  
(Board of Studies)

Chairman  
CSE - HiCET



Dean Academics

Dean (Academics)  
HiCET







# Hindusthan College of Engineering and Technology

(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Approved by AICTE, New Delhi & Accredited by NAAC with 'A' Grade & NBA  
Valley Campus, Pollachi highway, Coimbatore-641 032

Date : 23.08.2022

## MINUTES OF BOS MEETING

Board of Studies in **Computer Applications**, the ninth Board of Studies meeting of Regulation 2020 for the Academic year 2022-2023 (odd sem) was conducted on 23.08.2022 at 3.30 pm. in the Virtual mode.

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.A.R. Jayasudha	Professor/Head, Department of MCA, Hindusthan College of Engineering and Technology.	Chairman.
2.	Dr. K. Thulasimani	Professor Department of Computer Science and Engineering Government College of Engineering, Tiruvelveli	Anna University Nominee
3.	Dr.T. Padma	Professor and Head Department of MCA Sona College of Technology Salem- 63 005.	Subject Expert
4.	Ms. Divya Bharathi G	2018 - 2021 Batch System Engineer / Analyst, A4, Capgemini Technology Services India Pvt. Ltd, DivyaShree Techno Park, Bangalore.	Alumni
5.	Deepa Vaitheeswaran	Business Owner Kaivalya Tech Services, Pondicherry.	Industry Expert
6.	Mrs.M.Nirmala	Assistant Professor, Department of MCA, Hindusthan College of Engineering and Technology.	Member
7.	Mrs.Princess Maria John	Assistant Professor, Department of MCA, Hindusthan College of Engineering and Technology.	Member

- The chairman of the BoS, Dr. A. R. Jayasudha welcomed all the dignitaries and internal members for the ninth Board of Studies meeting.
- The chairperson briefly explained the Salient features of Regulation 2020 to All the BoS members.
- The chairman gave an outline of the changes to be made in the curriculum given by Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The Chairman conveyed to the members that, based on Anna University Curriculum, The board introduce Curriculum (Scheme) for I, III semesters and Bridge courses of Computer Applications Board.

#### **Recommendations by BoS members (Subject Related)**

- In "21CA1251 – UI Design and Development", 50% syllabus revision has been undertaken.
- In "21CA1203R-Java Programming", 10% syllabus revision made with relevant topics.
- In "21CA1001R-Java Programming Lab", 20% syllabus revision has been done.
- In "21CA3203R-Web Development", 20% syllabus change has been made based on the feedback of stakeholders.
- In "21CA3302-Cloud Computing", 20% syllabus revision has been undertaken.
- Chairman presented and requested the board members to accept the revised syllabus (80% revision) of 21CA3251- Data Science and Analytics.

#### **Department specific Board of Studies Discussion/Suggestions:**


- BOS members suggested reducing the content of Core Java from Java Programming Paper and including Networking topic in it.
- Subject Expert suggested to include Advanced Java Programming topics in java Programming Paper.
- It was suggested to have more of lab hours for UI Design and Development.
- It was suggested to remove Text Processing, Image Processing and Deep Learning topics from Data Analytics paper and include Data Modeling and Data Analytics Framework topics.

- Experts Suggested to include Security Topic in Cloud Computing paper
- It was Suggested to transferCryptography and Network Security paper from elective to Core subjects.

**The following resolutions are made in the Board of Studies meeting:**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of Regulation 2020 for the I semester and III semester subjects were introduced and passed by the Science & Humanities Board and Electronics and Communication Board respectively, and permitted to move on Academic Council by the BoS members of Board of Computer Applications for the students admitted during the academic year 2022 – 2023, and 2021-2022 onwards.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be forwarded to Science & Humanities and Electronics and Communication Board, and incorporated in Regulation2020.
- The meeting ended with thanks to the members by Chairman at 04.30 pm

The curriculum and the syllabus of semester 1 and 3, Bridge Course (1stSemester) and electives for the academic year 2022 – 2022(Odd Sem) is approved by the above committee.

  
Chairman  
Board Of Studies

**Enclose:**

1. CDCMinutes
2. DAC meetingMinutes-ATR
3. Copyof Regulation 2016
4. CurriculumandSyllabi

**Copy:**

1. Theprincipal
2. DeanAcademics
3. ControllerofExaminations
4. AlltheMembersof BoS
5. File



**ACTION TAKEN REPORT on BoS**

**Date : 30.08.2022**

**Name of the Department: Master of Computer Applications**

The Board of studies meeting of the Department Computer Applications was conducted on 23.08.2022. The Board of studies members Reviewed Regulation 2020, Curriculum and Syllabus 2020 of Computer Applications for the academic year 2022- 2023(Odd Sem). This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

**(i) Syllabus Revision**

S.NO	Course Code	Course Name	Percentage of Revision
1	21CA1251	UI Design & Development	50%
2	21CA1203R	Java Programming	10%
3	21CA1001R	Java Programming Lab	40%
4	21CA3251	Data Science and Analytics	80%
5	21CA3203R	Web Development	20%
6	21CA3302	Cloud Computing	20%

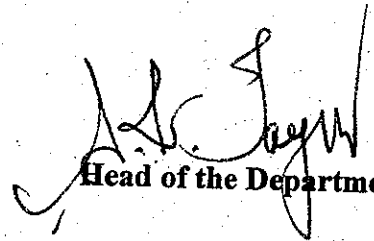
**Overall Percentage of syllabus revision made in the BoS :22.2 %**

**(ii) New courses Introduced:**

S.NO	Regulation	Course code with Name	Credits
1	2020R	Cryptography and Network Security	4

**General Recommendations:**

S. No	Suggestion given by BOS experts	Action Taken
1.	Suggested to reduce the content of Java Programming Paper and to include Network topics in it.	Incorporated
2.	Suggested to have more of lab hours for UI Design and Development.	Incorporated
3.	Suggested to remove Text Processing, Image Processing and Deep Learning topics from Data Science and Analytics paper and include Data Modeling and Data Analytics Framework topics.	Incorporated

  
Head of the Department

## DEPARTMENT OF COMPUTER APPLICATIONS

### MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: Computer Applications Date: 20.02.2023

The Computer Applications Board of Studies meeting of regulation 2020 for the academic year 2022 -2023 Even Semester was conducted on 20.02.2023 at 02.30p.m. in the Hybrid mode, Hindusthan College of Engineering and Technology.

The following members were present:

S.No.	Name of the Member	Position
1.	Dr.A.R.Jayasudha Professor and Head Department of Computer Applications, Hindusthan College of Engineering and technology, Coimbatore.	Chairman
2.	Dr. K. Thulasimani Professor, Department of Computer Science and Engineering Government College of Engineering, Tirunelveli	University Nominee
3.	Dr.T. Padma Professor and Head Department of MCA Sona College of Technology Salem	Academic Expert
4.	Dr.H.S. Guruprasad Professor, Department of CSE, BMS College of Engineering and technology Baṅgalore	Academic Expert
5.	Mr. Nallaperumal. T Software Architect, Cantier Systems. Coimbatore.	Industry Expert
6.	Ms. DivyaBharathi G System Engineer / Analyst, A4, Capgemini Technology Services India Pvt.Ltd, Baṅgalore.	Alumni
7.	Mrs.M.Nirmala Assistant Professor, Department of Computer Applications, Hindusthan College of Engineering and technology Coimbatore.	Member



8.	Dr.Princess Maria John Assistant Professor Department of Computer Applications Hindusthan College of Engineering and technology Coimbatore.	Member
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- The Chairman of BoS, Dr. A. R. Jayasudha welcomed all the dignitaries and internal members for the Tenth Board of studies meeting.
- The Chairman briefly explained the salient features of Regulation 2020 to all the BoS members.
- The Chairman gave an outline of the changes to be made in the curriculum given by Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The Chairman Conveyed to the members that, based on Anna University Curriculum, the board introduced curriculum for the II, IV semesters and Bridge Courses of Computer Applications Board.

**The following are the recommendations put forth by the BoS members,**

- BoS members recommended reducing the number of Theory Hours and compensating it with more number of Lab Hours for Data Structures and Algorithm, Python Programming and Web Development Subjects. In “21CA2201R – Data Structures and Algorithms”, “21CA2203R – Python Programming” and “21CA2251- Web Development” as recommended by BoS members more number of lab hours are incorporated.
- BoS members recommended that the topics of 4th unit in Python Programming can be changed to Object Oriented Programming using python, earlier it was given a general heading. In “21CA2203R – Python Programming”, and in “21CA2001 – Python Programming Lab”, 30% and 50% syllabus revision is made in relevant topics respectively.
- Stakeholders recommended to move Web development from third semester to Second semester and to include recent technologies. As recommended, “21CA2251- Web Development“, has been moved from third semester to second semester and recent technologies topic has been incorporated with 60% syllabus revision.
- In Embedded System and Sensors paper it was recommended to offer first 3 units with Digital Logic concepts and the remaining two units with Embedded Systems and sensors. In Electronics for Embedded Systems as recommended 50% syllabus revision has been incorporated and the title of the paper is also changed to “21EC2251- Electronics for Embedded Systems”.





- In “21CA2210R – Data Structures and Algorithms” and “21CA2002 – Data structures and Algorithms Lab” 20% and 50% syllabus change has been made respectively based on the feedback of stakeholders.
- Chairman presented and requested the board members to accept the introduction of new course “21CA2309 – Web Development” (Core), “21CA2309 – Introduction to Machine Learning” (Elective).

#### **General Recommendations:**

1. It was suggested to continue project work as per regulation and the BoS member appreciated the department efforts to get timely internship for the students through MoU companies.
2. The chairman proposed the inclusion of Introduction of Machine Learning as elective subject, and Web Development as Core Subjects in semester II and it was approved.
3. Dr.H.S. Guruprasad, subject expert recommended to offer Software Project Management as a value addition in the second semester.
4. It was recommended to continue the same subjects for bridge course as per regulation and BoS members approved it.
5. Chairman proposed that 2022 – 2023 batch students will be doing their internship projects (Semester II) in areas combining software and electronics (Internet of Things).

#### **The following resolutions were made in the Board of Studies meeting,**

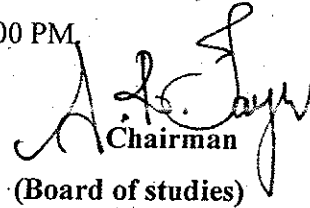
- In almost all the courses, changes have been done as per the current needs
- The curriculum and syllabus for the II semester was passed by the Computer Applications board and permitted to move to Academic Council by the BoS members of Computer Applications for the students admitted during the academic year 2022 - 2023 and onwards.
- The curriculum and syllabi of R2020 with revision and updation for the II semester Courses of MCA program for the students admitted during the academic year 2022 - 2023 and onwards was suggested to move on to Academic Council.
- The syllabus for Semester – II and if any revision and up-dation under regulation 2019 passed by the Electronics and Communications Engineering



were permitted to move on Academic Council by the members of Computer Applications board.

- o As discussed about the importance of online courses in the last Pre- BoS/ DAC meeting, students have completed ICT Learnathon online certificate course during the month of July 2021. BOS Members recommended the same and was suggested to move on to Academic Council.

The meeting ended with thanks to the Chairman at 04.00 PM.

  
Chairman  
(Board of studies)

**Chairman - BoS**  
**MCA - HiCET**

Enclosure:

1. Previous BoS Minutes- ATR
2. Regulation 2020
3. Curriculum and Syllabi

Copy:

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File





# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032

Date 16.02.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: Department of Computer Applications

The meeting of Computer Applications board of studies of Regulation 2020 for the Department of Computer Applications Post Graduate Programme was conducted on 16.02.2023 at 10.00 am, in Department of Computer Applications, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2020

S.No	Courses in which revision has been done	Action taken	Percentage Syllabus Revised
1.	21CA2201R – Data Structures and Algorithms	Modified	20%
2	21CA2002 – Data structures and Algorithms Lab	Modified	50%
3	21CA2203R – Python Programming	Incorporated	30%
4	21CA2001 – Python Programming Lab	Modified	50%
5	21CA2309 – Web Development	Incorporated	60%
6	21EC2251- Electronics for Embedded Systems	Incorporated	50%

Overall Percentage of revision made in the BoS: 18% ✓

### (III) New Course Introduced:

S. No	Regulation	Course Code with Name	Credits
1	R2020	21CA2309 – Introduction to Machine Learning	3
2	R2020	21CA2309 – Web Development	4
3	R2020	21EC2251- Electronics for Embedded Systems	3

(IV) Mandatory Courses (if any) - Nil

(V) Non-credit Mandatory Courses (if any)

S.No.	Course Name
1.	Software Project Management

(VI) Additional Credit Courses Introduced: Nil




(VII) The following recommendations given by stakeholders are considered and incorporated.

- Value added courses on Software Project Management has been introduced.

**(VIII). General Recommendations:**

S. No	Suggestion Given by the BoS Experts	Action Taken
1.	It was recommended to reduce the number of Theory Hours and compensating it with more number of Lab Hours for Data Structures and Algorithm, Python Programming and Web Development Subjects.	Considered
2.	Suggested that the topics of 4th unit in Python Programming can be changed to Object Oriented Programming using python, as it was earlier given a general heading.	Considered
3.	In Embedded Systems and sensors experts recommended to offer first 3 units with Digital Logic concepts and the remaining two units with Embedded systems and sensors.	Considered
4.	Suggested to continue project work as per regulation and the BoS member appreciated the department efforts to get timely internship for the students through MoU companies.	Considered
5.	Suggested to include Introduction of Machine Learning as elective Subjects in semester II.	Considered

  
Chairman  
(Board of Studies)

**Chairman - BoS  
MCA - HiCET**

  
Dean Academics

**Dean (Academics)  
HiCET**



**Academic Year: 2022-2023**

**Minutes of the Board of Studies Meeting**

The Ninth Board of Studies meeting of the Department of Management Sciences post graduate programme was conducted on 23.08.2022 in the Hybrid Mode (Google Meet: <http://meet.google.com/but-qakq-juu>).

The following members were present:

S.No.	Name of the Person	Department	Position
1	Dr.K.Samuvel	Professor & Head, Department of Management Sciences	Chairman
2	Dr.R.Krishnaveni	Professor, Department of Management Studies, PSG Institute of Management, Coimbatore	University Nominee
3	Dr.RupaGunaseelan	Director i/c & Professor, BSMED, Bharathiar University, Coimbatore-641046	Subject Expert
4	Dr.V.RNedunchezian	Dean, School of Commerce, SreeSaraswathiThyagaraja College, Pollachi-642107	Subject Expert
5	Dr.Ulaganathan Subramaniam	Senior Assistant Professor, Universiti Teknologi, Brunei	Subject Expert
7	Mr.K.Muthukumar	Advocate High Court. Chennai	Industry Expert
8	Mr.R.Praveen Kumar	City Manager (TN & PY) Ather Energy Pvt Ltd	Alumni
10	Dr. G. Murugananatham	Associate Professor of Management Studies National Institute of Technology, Tiruchirappalli – 620 015	Member from QIS rated Institution
11	Dr.M.Bhuvaneswari	Professor, Department of Management Sciences	Member
12	Dr.S.Kamalaravanan	Professor, Department of Management Sciences	Member
13	Dr.K.Nithyavathi	Associate Professor, Department of Management	Member

		Sciences	
14	Dr.V.Kanimozhi	Assistant Professor, Department of Management Sciences	Member
15	Ms.Annie Vincent Beulah	Assistant Professor, Department of Management Sciences	Member
17	Mr.R.Manoj	Assistant Professor, Department of Management Sciences	Member
18	Mr.A.Prasanth	Assistant Professor, Department of Management Sciences	Member
19	Mr.R.Suresh	II MBA	Student Member
20	Ms.S.Nisha	II MBA	Student Member
21	Mr.R.Sakthivel	2 / 43,Bodipalayam (Post) Madukkarai (Via), Coimbatore	Parent Member

The chairman of the BOS, Dr.K.Samuvel welcomed all the members for the Ninth Board of Studies meeting. The chairman introduced the BOS members.

The Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 03.02.2022 was approved.

The chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and syllabus. The Board of Studies member's suggestion has been sought in this regard.

The following points were discussed.

*The following Discussion on Curriculum and Syllabus took place:*

Sl.No	Name of the Course	Suggestion Incorporated
1	NPTEL courses with 3 credits in Post Graduate level to be included as <b>Marketing Specialization</b> courses in the curriculum	<b>Courses Included</b> 1. Advertising and Brand Management 2. Consumer Buyer Behaviour 3. Product and Brand Management 4. Digital Marketing
2	NPTEL courses with 3 credits in Post Graduate level to be included as <b>HR Specialization</b> courses in the curriculum	<b>Courses Included</b> 1. Human Resource Development 2. Managerial Skills for Interpersonal Dynamics 3. Performance And Reward Management
3	The following Value added courses to be introduced	1. For Second Years-Research writing 2. For First Years-Business Skills Enhancement Programme

### Continuous Internal Assessment Criteria

Amendments as per Anna University guidelines (2021-2022) related to computation of Internal assessment marks for all Theory and Laboratory courses.

Sl.No	Criteria	Individual Marks	Total Marks	Maximum Converted Marks
1	Internal Test I (100 marks) Then the 100 marks will be converted in to 60 Marks.	60	200	40

2	Any One of the Internal Components for 20 marks each to be selected from the components listed below. The 20 marks will be converted in 40 marks.	40		
3	Internal Test II (100 marks), Then the 100 marks will be converted in to 60 Marks.	60		
4	Any One of the Internal Components for 20 marks each to be selected from the components listed below. The 20 marks will be converted in 40 marks.	40		

**Proposed Question Pattern For Continuous Internal Assessment Test**

Maximum Marks : 100 (No. of Questions x Mark = Total marks)
Part A : 5 Q x 5 = 25 marks (Answer all questions)
Part B : 4 Q x 15 = 60 marks (Either or Pattern)
Part C : 1 Q x 15 = 15 marks (Case Study - Compulsory) (Application / Design/ Analysis/ Evaluation/ Creativity)

**General Suggestions from members of Board of Studies**

Sl.No	Suggested by	Suggestions
1	Dr.R.Krishnaveni University Nominee Professor, PSG IM	University norms to be followed to choose the courses from NPTEL program for credit conversion
2	Dr.P.R.Nedunchezian Academic Expert Dean, SreeSaraswathiThyagaraja College, Pollachi	<ol style="list-style-type: none"> <li>1. Tie up with Logistic Council of India to conduct Online Courses</li> <li>2. Only 20% of credits to be transferred from MOOC or NPTEL program for the related specialization courses.</li> <li>3. To compensate 3 credits in regular courses, Chose 2 credit and 1 credit courses from NPTEL program</li> </ol>
3	Dr.G.Muruganantham Academic Expert Associate Professor, Department of Management Studies, NIT, Tiruchirapalli	Make certain norms for choosing the specialization courses
4	Mr.G.Muthukumar Industry Expert Advocate, High Court Chennai	<ol style="list-style-type: none"> <li>1. Commercialization of Patent to be introduced as a course under the specialization of Entrepreneurship</li> <li>2. IPR audit can be introduced as a course</li> </ol>

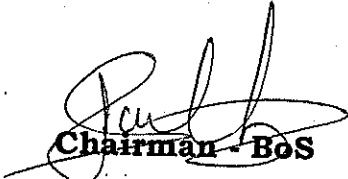


		3. Legality of Crypto Currency and Block Chain Technology to be added in a course 4. A management student must be aware about the commercial litigation and arbitration. 5. Real Estate and (Regulation and Development) Act to be Included 6. Personal Relationship of Family to be included in any HR Specialization course
5	Mr.R.PraveenKuamr Alumni Student	More inputs should be given to students in Advance excel.

Course faculties are advised to conduct or organize guest lectures, seminars, workshops and outbound activities for each courses under any of the clubs.

Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses.

The meeting came to an end at 12.45 pm with vote of thanks.

  
**Chairman - BoS**  
**Chairman - BoS**  
**MBA - HiCET**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File





**Hindusthan College of Engineering And Technology**  
Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Coimbatore – 641 032



**Department of Management Sciences**

Date: 29.08.2022

**Action Taken Report on BOS**

The meeting of Ninth Board of Studies of Regulation 2020(Revised) for the Department of Management Sciences Post graduate program was conducted on 23.08.2022 at 11.30 am in the in the Hybrid Mode(Google Meet:<http://meet.google.com/but-qakq-juu>).

**(ii) New courses Introduced:**

Sl.No	Regulation	Course code with name	Credits
1	R 2020	20BAX379-Advertising and Brand Management	3
2	R 2020	20BAX380-Consumer Buyer Behaviour	3
3	R 2020	20BAX381-Product and Brand Management	3
4	R 2020	20BAX382-Digital Marketing	3
5	R 2020	20BAX383-Human Resource Development	3
6	R 2020	20BAX384-Managerial Skills for Interpersonal Dynamics	3
7	R 2020	20BAX385-Performance And Reward Management	3

**General Recommendations:**

Sl.No	Suggestion given in the BoS experts	Action taken
1	University norms to be followed to choose the courses from NPTEL program for credit conversion	Considered
2	1. Tie up with Logistic Council of India to conduct Online Courses 2. Only 20% of credits to be transferred from MOOC or NPTEL program for the related specialization courses. 3. To compensate 3 credits in regular courses, Chose 2 credit and 1 credit courses from NPTEL program	Considered
3	Make certain norms for choosing the specialization courses	Considered
4	1. Commercialization of Patent to be introduced as a course under the specialization of	Considered

	<p>Entrepreneurship</p> <ol style="list-style-type: none"> <li>2. IPR audit can be introduced as a course</li> <li>3. Legality of Crypto Currency and Block Chain Technology to be added in a course</li> <li>4. A management student must be aware about the commercial litigation and arbitration.</li> <li>5. Real Estate and (Regulation and Development) Act to be Included</li> <li>6. Personal Relationship of Family to be included in any HR Specialization course</li> </ol>	
5	More inputs should be given to students in Advance excel.	Considered
6	Amendments as per Anna University guidelines (2021-2022) related to computation of internal assessment marks for all Theory and Laboratory courses.	Incorporated



CHAIRMAN

BoS/MBA

**Chairman - BoS**  
**MBA - HiCET**

**Academic Year: 2022-2023**

**Minutes of the Board of Studies Meeting**

The Tenth Board of Studies meeting of the Department of Management Sciences post graduate programme was conducted on 15.02.2023 11:00 am in the Hybrid Mode(Google Meet: <https://meet.google.com/baw-ztvc-pyi>).

The following members were present:

S.No.	Name of the Person	Department	Position
1	Dr.K.Samuvel	Professor & Head, Department of Management Sciences	Chairman
2	Dr.R.Krishnaveni	Professor, Department of Management Studies, PSG Institute of Management, Coimbatore	University Nominee
3	Dr.P.Radhkrishnan	Director Wisdom School of Management Pollachi	Subject Expert
4	Dr.V.R Nedunchezian	Dean ,School of Commerce, Sree Saraswathi Thyagaraja College, Pollachi- 642107	Subject Expert
5	Dr.Rupa Gunaseelan	Director i/c & Professor, BSMED, Bharathiar University,	Subject Expert

		Coimbatore	
6	Mr.M.Shyam Sundar	Procurement Operations Manager,Adidas	Industry Expert
7	Mr.R.Praveen Kumar	City Manager (TN & PY) Ather Energy Pvt Ltd	Alumni
8	Dr.M.Bhuvaneswari	Professor, Department of Management Sciences	Member
9	Dr.S.Kamalaravanan	Professor, Department of Management Sciences	Member
10	Dr.K.Nithyavathi	Associate Professor, Department of Management Sciences	Member
11	Dr.A.Jayanthi	Associate Professor, Department of Management Sciences	Member
12	Dr.V.Kanimozhi	Assistant Professor, Department of Management Sciences	Member
13	Lt.R.Manoj	Assistant Professor, Department of Management Sciences	Member
14	Mr.A.Prasanth	Assistant Professor, Department of Management Sciences	Member
15	Mr.R.Suresh	II MBA	Student Member
16	Ms.S.Nisha	II MBA	Student Member
17	Mr.R.Sakthivel	2 / 43,Bodipalayam (Post),Madukkarai (Via), Coimbatore	Parent Member

The chairman of the BOS, Dr.K.Samuvel welcomed all the members for the Tenth Board of Studies meeting. The chairman introduced the BOS members.

The Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 23.08.2022 was approved.

The chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and syllabus. The Board of Studies member's suggestion has been sought in this regard.

The following points were discussed.

*The following Discussion on Curriculum and Syllabus took place:*

S.No	Name of the Course	Suggestions incorporated
1	20BA1201 - Business Organization And Management	Unit I: Concept of Unicorn Companies to be Included
2	20BA1202 - Managerial Economics	Unit IV: Game Theory to be removed Unit V: Global Recession and its Impact to be included
3	20BA1203- Accounting for Managers	Unit I: Final accounts of companies to be included.
4	20BA2201 -Operations Management	Unit V: PERT-CPM to be removed
5	20BA2204- Human Resource Management	Unit III: Online Training and Assessment to be included
6	20BA2206 - Business Research Methods	Unit V: AI tools in Research Report writing to be included
7	20BA3302 - International Business	Unit II: FIIs (Foreign Institutional Investors) to be included
8	20BAX305 - Services Marketing	Unit I: Virtual Service Portals to be included Unit V: 7Ps to be removed
9	20BAX301 -Integrated Marketing Communication	Unit IV: The contents relating to Types of stakeholders , Public relations events, Damage control and Public relations tools to be removed. Unit V: Issues in Social Marketing to be removed
10	20BAX304 -Retail Management	Unit I: An overview of Global Retailing to be included Unit I : Changing trends in retailing to be removed Unit II: Challenges in Retailing in India to be removed
11	20BAX309- Financial and Insurance Services	Unit I: Concept of Financial Assets to be included

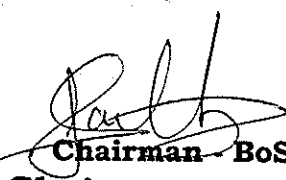
### General Suggestions from members of Board of Studies

S.No	Suggested by	Suggestions
1	Dr.R.Krishnaveni, University Nominee, Professor, PSG IM.	1. Asked to include updated topics in courses as per the recent trend
2	Dr.P.R.Nedunchezian Academic Expert, Dean, Sree Saraswathi Thyagaraja College, Pollachi.	1. MoU with NGO's 2. Create Awareness about online courses like (Infosys Springboard)...etc
3	Mr.M.Shyam Sundar, Industry Expert, Procurement Operations Manager, Adidas.	1. Encourage students to publish paper. 2. Involve students in Innovative case studies 3. Focus on creating awareness on role of technology (AI, Machine Learning) in Business. 4. Industry Tie-ups 5. Awareness about Start-up India
4	Mr.R.PraveenKuamr, Alumni Student.	1. Focus on Business Analytics and its Practical Applications.

Course faculties are advised to conduct or organize guest lectures, seminars, workshops and outbound activities for each courses under any of the clubs.

Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses.

The meeting came to an end at 12.45 pm with vote of thanks.

  
**Chairman - BoS**  
**Chairman - BoS**  
**MBA - HiCET**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



**Department of Management Sciences**

Date: 18.02.2023

**Action Taken Report on BOS**

The meeting of 10<sup>th</sup> Board of Studies of Regulation 2020(Revised) for the Department of Management Sciences Post graduate program was conducted on 15.02.2023 at 11.30 am in the Hybrid Mode(Google Meet: <https://meet.google.com/baw-ztvc-pyi>)

**(i) Syllabus Revision:**

S. No	Subject in which revision has been done	Action taken	Percentage Syllabus Revised
1.	20BA1201 - Business Organization And Management	Incorporated	3%
2.	20BA1202 - Managerial Economics	Incorporated	5%
3.	20BA1203- Accounting for Managers	Incorporated	3%
4.	20BA2201 -Operations Management	Incorporated	3%
5.	20BA2204- Human Resource Management	Incorporated	3%
6.	20BA2206 - Business Research Methods	Incorporated	3%
7.	20BA3302 - International Business	Incorporated	3%
8.	20BAX305 - Services Marketing	Incorporated	5%
9.	20BAX301 -Integrated Marketing Communication	Incorporated	10%
10.	20BAX304 -Retail Management	Incorporated	10%
11.	20BAX309- Financial and Insurance Services	Incorporated	3%

General Recommendations:

Sl.No	Suggestion given in the BoS experts	Action taken
1	Include updated topics in courses as per the recent trend	Considered
2	Make MoU with NGO's	Considered
3	Create Awareness about online courses like (Infosys Springboard)...etc	Considered
4	Industry Tie-ups Create awareness about Start-up India	Considered
5	Involve students in Innovative case studies	Considered
6	Encourage students to publish paper.	Considered
7	Create Industry Tie-ups	Considered
8	Focus on creating awareness on role of technology (AI, Machine Learning) in Business.	Considered
9	Focus on Business Analytics and its Practical Applications.	Considered



CHAIRMAN

BoS/MBA

**Chairman - BoS**  
**MBA - HiCET**