

VOLUME XIII -A

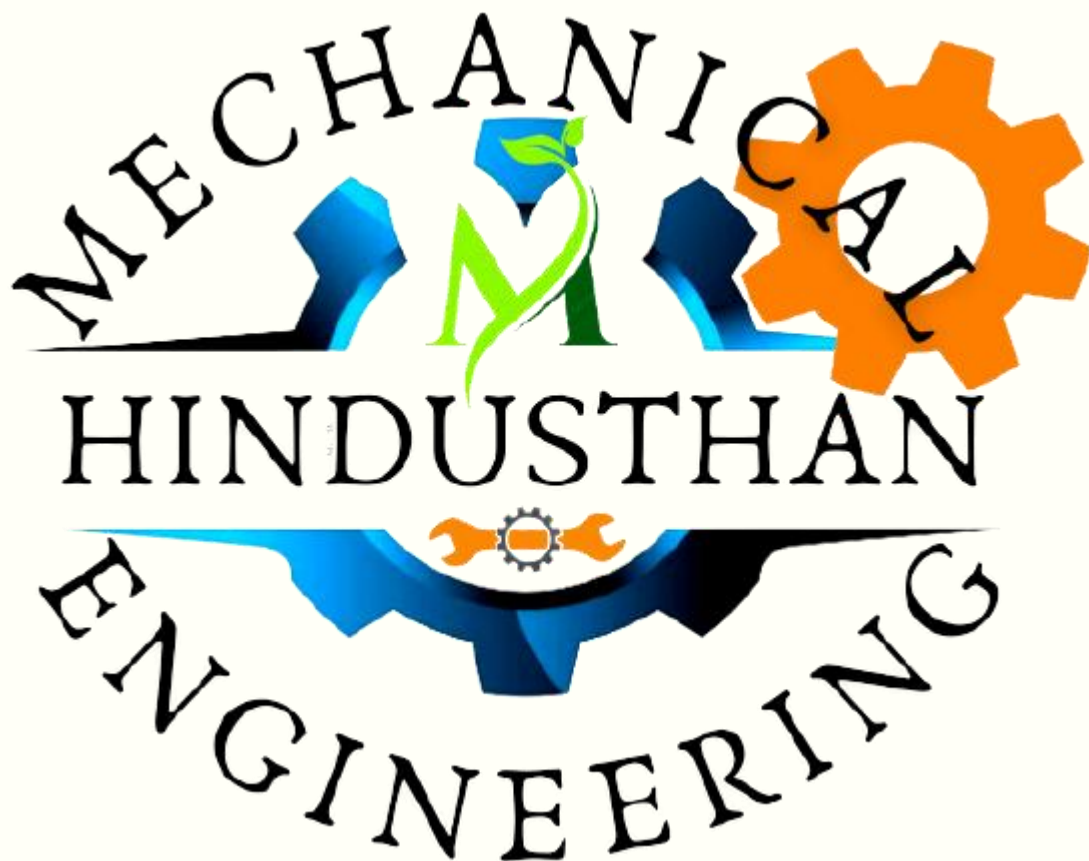
2020-2021

ODD SEMESTER

# ALMANAC

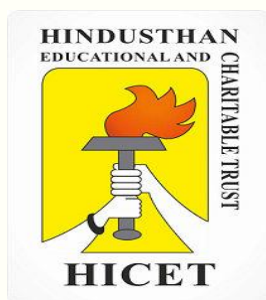
DEPARTMENT OF MECHANICAL ENGINEERING

NEWS LETTER



## FROM THE EDITOR'S DESK

Warm greetings! I take immense pleasure and privilege to pen a few words for our college Newsletter. A recap of all the activities and programmes that were conducted during the academic year 2020-2021 is presented in this edition. Eminent speakers from industries, premier institutions and professional academies were invited to share their valuable experience and knowledge with our anxious students. With razor sharp perfection, all these activities were unitedly conducted by a team of energetic, enthusiastic faculty of our department. We are highly indebted to the invaluable assistance and support extended by the Management, Principal, department staff, office staff and other for all our entire endeavors.



**Dr.K.Siva**  
**Head of the Department**  
**Mechanical Engineering**

### **DEPARTMENT VISION**

To provide quality technical education in Mechanical Engineering and build holistic professionals who can excel in the engineering establishments and serve for the country with ethical values.

### **DEPARTMENT MISSION**

**M1:** To prepare graduates with good technical skills and knowledge.

**M2:** To prepare graduates with life-long learning skills to meet the requirements in the higher education and in society.

**M3:** To prepare graduates as a successful entrepreneur with employment skills, ethics and human values.

### **PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)**

**PEO1:** Graduates able to apply technical expertise and skills to face the Industrial challenges.

**PEO2:** Graduates able to design create and innovate economically, environment-friendly and technically feasible products with social acceptance.

**PEO3:** Graduates able to exhibit professionalism in their profession with good communication, ethics and entrepreneurship skills to meet the social challenges.

### **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

**PSO1:** Able to design, analyze and apply knowledge in complex mechanical engineering problems with time effective solutions.

**PSO2:** Able to understand the relevance of engineering practices for societal requirements and become a multi faceted leader.

## **PROGRAMME OUTCOMES (POs)**

### **Engineering Graduates will be able to**

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

## NEW FACULTY JOINED

The department recruited several well qualified faculties in the academic year 2020-2021. The new teaching faculty who joined our department is.



**Mr.P.Meenakshi Sundaram.**  
Assistant Professor



**Mr.M.Palanisamy.**  
Assistant Professor



**Mr.K.Prabhudeva.**  
Assistant Professor



**Mr.C.Nijanthan.**  
Assistant Professor



**Mr.M.Dinesh Kannan.**  
Assistant Professor



# TO OUR NEW STAFF!

## FACULTY ACHIEVEMENTS

S. No	Name of Faculty	Date of Award	Name of the Award	Name of the Professional Society
1	Dr. P. Jeyalakshmi	01.04.2021	Students Chair of Coimbatore ISHRAE chapter(2021-2022)	ISHRAE Chapter

## FUNDED PROJECTS & SEMINAR GRANTS

Project Title	Funding Agency	Amount sanctioned	Scheme
Additive Manufacturing	AICTE	Rs. 93,000	ATAL

**HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(An Autonomous Institution)  
(Approved by AICTE, Affiliated to Anna University, Chennai, Accredited by NBA, Accredited 'A' Grade by RAAC)  
Othakkalmandyam Post, Coimbatore-641032

**Department of Mechanical Engineering**  
Cordially invite you for the  
**INAUGURAL FUNCTION**  
of  
**AICTE ATAL Sponsored Faculty Development Program (FDP)**  
on  
**"ADDITIVE MANUFACTURING"**  
[16.02.2021 - 20.02.2021]

**Chief Guest**  
**Dr. Somnath Chattopadhyaya**  
Associate Professor  
Dept. of Mechanical Engineering  
Indian Institute of Technology (ISM)  
Dhanbad, Jharkhand

**President**  
**Dr. Karunakaran K**  
Chief Executive Officer  
Hindusthan Institutions.

**Co-ordinator**  
**Dr. Manikandan J**  
Professor  
HICET, Coimbatore

**Convener**  
**Dr. Siva K**  
Professor & Head  
HICET, Coimbatore

16.02.2021 Online Mode 9:45 AM  
<https://join.dhanushsamvaad.com/samvaad/aar/cmb>

**Experts**

PROGRAMMES CONDUCTED

**HINDUSTHAN**  
COLLEGE OF ENGINEERING AND TECHNOLOGY  
Department of Mechanical Engineering  
Organizing  
INTERNATIONAL WEBINAR  
ON  
**"UPSKILLING FOR INDUSTRY 5.0 CHALLENGES"**  
June 12, 2020 | 5 PM to 6 PM  
**Mr.R Vijayakumar**  
Head of Advanced Numerical Simulations,  
Airbus group,  
Bristol  
UK  
WEB LINK: [HTTPS://MEETINGSAPAC15.WEBEX.COM/MEETINGSAPAC15/J.PH.P?MTID=MC5D180B7106EC30FBA22D5A030FB7C6](https://meetingsapac15.webex.com/meetingsapac15/J.PH.P?MTID=MC5D180B7106EC30FBA22D5A030FB7C6)  
MEETING NUMBER: 1663070647

International Webinar on "Up skilling for Industry 5.0 Challenges"  
Chief Guest  
Mr.R.Vijayakumar, Airbus Group, UK on 12<sup>th</sup> June 2020.

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COLLEGE OF ENGINEERING AND TECHNOLOGY  
(An Autonomous Institution)  
(Accredited by NAAC with 'A' Grade)  
(Approved by AICTE and Affiliated to Anna University)  
COIMBATORE 641032  
Department of Mechanical Engineering  
**Dr. K. Sopian**  
Professor,  
Director of the Solar Energy Research Institute,  
Universiti Kebangsaan Malaysia.  
Topic: Solar Cooling and Air Conditioning

International level FDP on "Solar Energy"  
Chief Guest  
Dr.K.Sobian, Malaysia University 14-07-2020 to 17-07-2020

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COLLEGE OF ENGINEERING AND TECHNOLOGY  
APPROVED BY AICTE, AFFILIATED TO ANNA UNIVERSITY, CHENNAI ACCREDITED BY NEA, ACCREDITED WITH 'A' GRADE BY NAAC  
(An Autonomous Institution)  
COIMBATORE 641032

**DEPARTMENT OF MECHANICAL ENGINEERING**  
ORGANIZING  
NATIONAL LEVEL FACULTY DEVELOPMENT PROGRAMME  
ON  
**RESEARCH OPPORTUNITIES**  
IN  
**ADVANCED WELDING PROCESSES**  
22-07-2020 to 26-07-2020

Registration Link: <https://forms.gle/inZufuUYt4wwQ8p1A>

**22-07-2020**  
**DAY 1- OVERVIEW OF ADVANCED WELDING PROCESSES**  
  
**Dr. V.P. Raghupathy**  
Former DGM IIRI  
Scientist, National Aerospace Laboratory  
Visiting Professor, PES University  
Bangalore  
10.00 AM - 11.30 AM

**23-07-2020**  
**DAY 2 - ELECTRON BEAM WELDING AND LASER WELDING**  
  
**Dr. D. Sethuram**  
Professor  
Department of Mechanical Engineering  
PES University  
Bangalore  
10.00 AM - 11.30 AM

**24-07-2020**  
**DAY 3 - ROBOTIC WELDING**  
  
**Dr. N. Murugan**  
Professor  
Department of Robotics & Automation Engineering  
PSG College of Technology  
Coimbatore  
10.00 AM - 11.30 AM

**25-07-2020**  
**DAY 4- NUANCES IN FSF**  
  
**Dr. Satish Vasu Kailas**  
Professor  
Department of Mechanical Engineering  
Indian Institute of Science  
Bangalore  
10.00 AM - 11.30 AM

**26-07-2020**  
**DAY 5- PLASMA WELDING**  
  
**Dr. K. Siva**  
Professor & Head  
Department of Mechanical Engineering  
Hindusthan College of Engg & Technology  
Coimbatore  
10.00 AM - 11.30 AM

**CONVENOR**  
**Dr. K. Siva**  
PROFESSOR AND HEAD  
DEPT. OF MECHANICAL ENGINEERING

**COORDINATORS**  
Mr. N. Prasanna Venkatesan  
Assistant Professor  
9629260383  
Mr. S. Vidhya Prakash  
Assistant Professor  
9894717500

FDP on RESEARCH OPPORTUNITIES IN ADVANCED WELDING PROCESSES

Chief Guests

Dr. V.P. Raghupathy, Bangalore University,  
Dr. P. Sethuram, PES University,  
Dr. N. Murugan, PSG Institute of Technology,  
Dr. Sathish Vasu Kailas, IISc, Bangalore



**Department of Mechanical Engineering  
Organizes  
National Level  
Online Faculty Development Programme  
on  
"EFFECTIVE RESEARCH - TOOLS, FUNDING AND IPR"  
[07.09.2020 - 10.09.2020]  
SPEAKERS**

<p style="text-align: center;">7.09.2020 @ 6.00 - 7.30 PM <b>"Intellectual Property Rights in Academics"</b></p> <div style="display: flex; align-items: center;"><p><b>Dr.G.Geetha</b> Women Scientist Trainee Technology Information Forecasting and Assesment Council.(TIFAC), Chennai.</p></div>	<p style="text-align: center;">8.09.2020 @ 6.00 - 7.30 PM <b>"Guidance on Phd Research Work and Journal Publication"</b></p> <div style="display: flex; align-items: center;"><p><b>Dr.M.Mohanraj</b> Professor Department of Mechanical Engineering Hindusthan College of Engineering and Technology, Coimbatore.</p></div>
<p style="text-align: center;">9.09.2020 @ 6.00 - 7.30 PM <b>"Smart Techniques for Getting Funding and Grants"</b></p> <div style="display: flex; align-items: center;"><p><b>Dr.S.J.Vijay</b> Associate Professor Department of Mechanical Engineering Karunya Institute of Technology and Science, Coimbatore.</p></div>	<p style="text-align: center;">10.09.2020 @ 5.30 - 6.30 PM <b>"Journal Reference Management Using Endnote"</b></p> <div style="display: flex; align-items: center;"><p><b>Dr.A.Tamilvanan</b> Associate Professor Department of Mechanical Engineering Kongu Engineering College, Erode.</p></div>
<p style="text-align: center;">10.09.2020 @ 6.30 - 7.30 PM <b>"Effective Paper Writing and Usage Of Research Tools"</b></p> <div style="display: flex; align-items: center;"><p><b>Dr.C.Samson Jerold Samuel</b> Associate Professr, Department of Mechanical Engineering Sri Krishna College of Engineering and Technology, Coimbatore.</p></div>	

Four days FDP on Effective Research – Tools, Funding and IPR.

Chief guests

Dr.S.Vijay, Asso. Prof/Mech, Karunya University, CBE.

Dr.A.TamilVanan, Asso. Prof / Mech, Kongu Engineering College.

Dr.C. Samson Jerold Samuel, Asso.Prof / Mech, SKCET, CBE.

## PAPERS PUBLISHED BY FACULTY

Sl.No.	Calendar Year	Title of paper	Name of the author/s	Name of Journal
1	2020	Active Vibration Control of Rotating Machines	Dr.K.Siva	Solid State Technology
2	2020	Numerical simulation on solar collector and cascade heat pump combi water heating systems in Kazakhstan Climates	Dr.M.Mohanraj	Renewable Energy Elsevier Publishers
3	2020	Drying of untreated Musa nendra and Momordica Charantia in a forced convection solar cabinet dryer with thermal storage.	Dr.M.Mohanraj	Elsevier Publishers
4	2020	Experimental investigations of reciprocating wear behaviour of metal matrix (Ti/TiB) composites	Dr.M.Mohanraj	Archives of Civil and Mechanical Engineering
5	2020	Impact of 3rd grade nano fluid flow across a convective surface in the presence of inclined Lorentz force- An approach to entropy optimization.	Dr.M.Mohanraj	Journal of Thermal Analysis and Calorimetry
6	2020	Experimental investigations on jet impingement solar air heaters using pin-fin absorber plate.	Dr.M.Mohanraj	Journal of Processes Mechanical Engineering
7	2020	Microstructure and corrosion behaviour of ZnO-Mg coating on AISI4140 steel fabricated by spray coating	Dr.M.Mohanraj	Journal of Materials Engineering and Performance
8	2020	Investigations on air deliver landing plan utilizing Genetic Algorithm(GA) and Opposition based GA with Cauchy Mutation (OGACM) and correlations of Punishment cost	Dr.C.Nithyanandam	Test Engineering & Management
9	2020	Elephnat Herding Algoritthm to confine the discipline cost of Aircraft Landing Schedule	Dr.C.Nithyanandam	International Journal of Creative Research Thoughts

10	2020	Research on aircraft landing schedule using opposition-based genetic algorithm with Cauchy mutation	Dr.C.Nithyanandam	Int. J. Business Intelligence and Data Mining, Inderscience Publishers
11	2020	Evaluation of tensile & flexural properties of foundry slag reinforced particulate polymer composite	Dr.S.Kannan	Journal of Engineering Science & Technology
12	2020	Surface Roughness Assessment Based on Digital Image Texture Analysis of CFRP Composites Machined by Swirling Abrasives	Dr.S.Kannan	Journal of the Balkan Tribological Association
13	2020	Shape modification of automatic actuated fire Sprinkler (AAFS) made up of NiTiNol spring	Dr.Y.Ras Mathew	Journal of the Balkan Tribological Association
14	2020	Investigations on LM6 Aluminum Alloy CO <sub>2</sub> - Sand Moulds	Mr. K. R. Sakthivel	Journal of the Balkan Tribological Association
15	2020	Modelling & Analysis of an EN8 crankshaft material in comparison with forged steel crankshaft	Mr.L.Karthik	Journal of Materials today Proceedings
16	2020	Numerical Analysis of Modified tooth in Spur Gear for increasing the performance using fool proofing technology	Mr.L.Karthik	Journal of Materials today Proceedings
17	2020	Modelling & Analysis of an EN8 crankshaft material in comparison with forged steel crankshaft	Mr.S.Sivakumar	Journal of Materials today Proceedings
18	2020	Modelling & Analysis of an EN8 crankshaft material in comparison with forged steel crankshaft	Mr.A.Sasikumar	Journal of Materials today Proceedings
19	2020	Numerical Analysis of Modified tooth in Spur Gear for increasing the performance using fool proofing technology	Mr.C.A.Jagadish	Journal of Materials today Proceedings
20	2020	Numerical Analysis of Modified tooth in Spur Gear for increasing the performance using fool proofing technology	Mr.S.Vidya Prakash	Journal of Materials today Proceedings

**CHIEF EDITOR**

**Dr. K.Siva, M.Tech., Ph.D.  
Professor and Head**

**EDITORS**

**Mr.A.Nazeer Ahamed, M.E., Ph.D\*,  
Assistant Professor**

**Mr.P.John Britto, M.E.,  
Assistant Professor**

