

VOLUME XVII - B

2023-2024

EVEN SEMESTER

ALMANAC

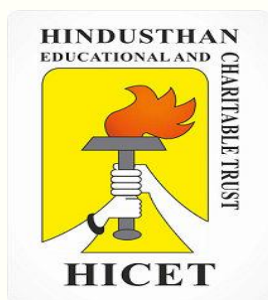
DEPARTMENT OF MECHANICAL ENGINEERING

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 2023-2024 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, CEO, 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.

FACULTY ACHIEVEMENTS

S.No	Name of the principal Investigator & CO-Investigator	Title of the project	Funding Agency, Duration & Date of Sanction	Amount (in Lakh)
1.	Dr.K.Siva Professor	Bharath Cycle Design Challenge	AICTE	0.40 Lakhs
2.	Dr.Y.Ras Mathew, Associate Professor			
3.	Dr.K.Siva Professor	Tomato Grand Challenge	AICTE	1 Lakhs
4.	Dr.Y.Ras Mathew, Associate Professor			
5.	Dr.K.Siva Professor	“Vertical axis wind turbine with flapping Mechanism”.	Mentor for MSME Funded Project	14 Lakhs
6.	Dr.Y.Ras Mathew, Associate Professor		Received MSME Funded Project	
7.	Dr.Y.Ras Mathew, Associate Professor	Smart Coconut Harvester	Mentor for MSME Funded Project	12.5 Lakhs

PATENT DETAILS

S.No	Name of the Author(s)	Title	Application No./ Patent No.	Status (Filed/Published/Granted)
1	Dr.K.Siva Dr.Y.Ras Mathew	Vertical Axis Wind Turbine For Wind Energy Based Power Generators	202241013993	Granted
2	Dr.K.Siva Dr.Y.Ras Mathew	FIRE SPRINKLER	202141049995 A	Granted
3	Dr.C.Nithyanandam	Solar Air Car Purifier	355142-001	Granted
4	Dr.L. Karthick,	Automatic adjustable seed sowing Machine	367588-001	Granted

PROGRAMMES CONDUCTED



HINDUSTHAN
COLLEGE OF ENGINEERING AND TECHNOLOGY
AN AUTONOMOUS INSTITUTION, APPROVED BY AICTE, ACCREDITED WITH NBA,
ACCREDITED WITH "A++" GRADE BY NAAC
COIMBATORE-32

DEPARTMENT OF MECHANICAL ENGINEERING

Invite you all for

**"Embrace global career opportunities
with
James Cook University, Singapore"**



Resource Persons

Mr. Jay shah
Regional manager
Partnership
Date
01/04/2024
TIME
2 PM - 4.30 PM
Coordinator
NAZEER AHAMED A
AP/MECH
Dr.J.JAYA
Principal

Mr. Pon Karthikeyan
Recruitment manager
South Asia
Venue
GANGA HALL
Convenor
Dr.K.SIVA
HOD/MECH
DEAN-IIS
Dr.K.KARUNAKARAN
CEO

PATRONS



GPS Map Camera


Malumichampatti, Tamil Nadu, India
PG Block, Malumichampatti, Tamil Nadu 641050, India
Lat 10.893261°
Long 76.991266°
07/02/24 03:36 PM GMT +05:30

Google

Guest Lecture on
"Embrace global career opportunities with
James cook University, Singapore"

Chief Guest
Mr. Jay shah
Regional Manager
Partnership
Mr. Pon Karthikeyan
Recruitment Manager
South Asia


Date : 01/04/02024


 **HINDUSTHAN**
COLLEGE OF ENGINEERING AND TECHNOLOGY
AN AUTONOMOUS INSTITUTION, APPROVED BY AICTE, NEW DELHI, AFFILIATED TO ANNA UNIVERSITY, CHENNAI
ACCREDITED BY NBA (AERO, AUTO, CIVIL, CSE, ECE, EEE, IT, MECH, MCTS)
ACCREDITED BY NAAC 'A++' GRADE WITH CGPA OF 3.69 OUT OF 4 IN CYCLE 2

DEPARTMENT OF MECHANICAL ENGINEERING

Organise webinar on

**“GENDER EQUITY
&
WOMEN EMPOWERMENT”**





Resource Person
Dr.A.Jayanthi
Associate Professor
Department of Management Sciences
Hindusthan College of Engineering and Technology
Coimbatore-641032

Date
18/05/2024

TIME
11 AM - 12.30 AM


PATRONS

Coordinator
NAZEER AHAMED A
AP/MECH

Convenor
Dr.K.SIVA
HOD/MECH
DEAN-MS

Dr.J.JAYA
Principal

Dr.K.KARUNAKARAN
CEO



Webinar on
“Gender Equity & Women Empowerment”

Resource person

Dr.A.Jayanthi
Assistant Professor
Department of management sciences
HICET,Coimbatore

Jayanthi A HICET MBA STAFF (Presenting)

women empowerment 2024 -18.05.2024 (Compatibility Mode) - Microsoft PowerPoint

Click to add title

- Gender Equity and Women Empowerment
- The need for women's empowerment
- How do you empower a woman?
- What are the 5 types of Women empowerment?
- What are the positive effects of women's empowerment?

Click to add notes

12:07 | czb-gmwh-xks

Participants:

- Jayanthi A HICET MBA STAFF
- 7.21E+11 DIVAKARAN E
- Haril Prasath
- 7.21E+11 AJITH S
- 7.21E+11 SATHEESWARAN V
- 7.21E+11 JAYARAMA MURTHE V
- Pragti V
- 41 others
- A.NAZEER AHAMED HICET ST...



HINDUSTHAN

COLLEGE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF MECHANICAL ENGINEERING

Organise Webinar on

HUMAN VALUES

An Approach through Value Education

Resource Person



Dr. S. Kamalasaravanan
Professor
Department of Management Sciences
Hindusthan College of Engineering and Technology
Coimbatore-641032

DATE & TIME

MAY

18

2:00 PM

Coordinator
NAZEER AHMED A
AP/MECH

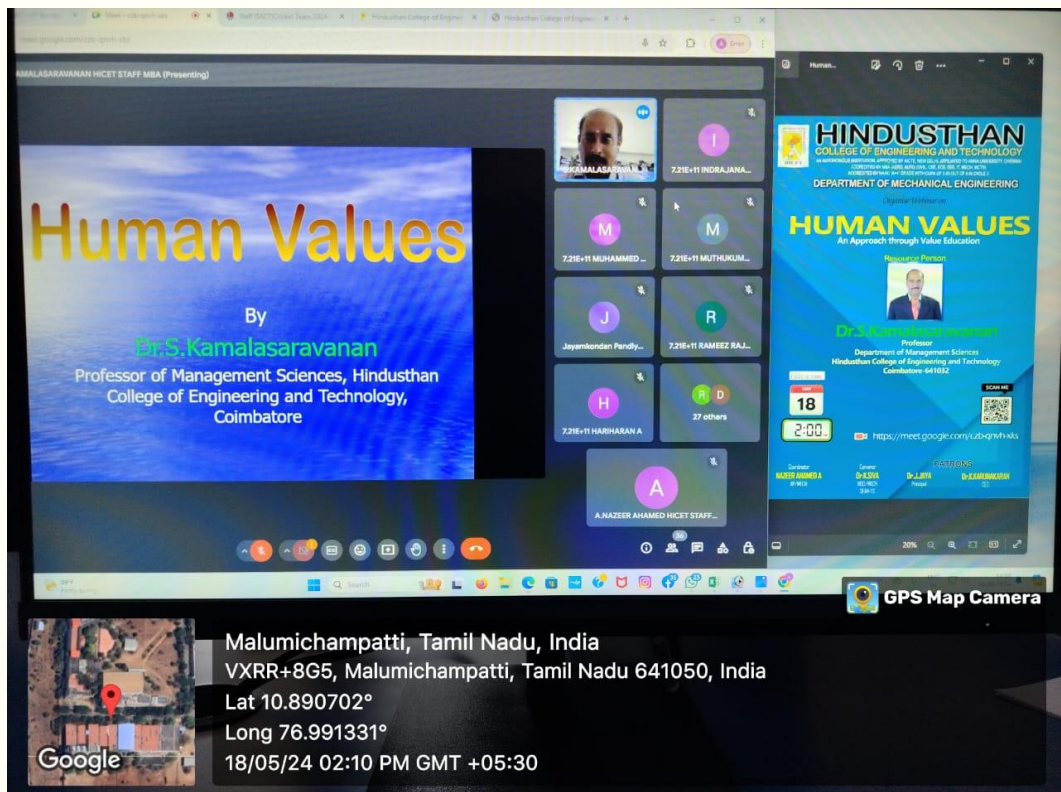
Convener
Dr. K. SIVA
HOD/MECH
DEAN-MS

PATRONS
Dr. J. JAYA
Principal
Dr. K. KARUNAKARAN
CEO

Webinar on

Human values

Resource person
Dr. S. Kamalasaravanan
Professor
Department of management sciences
HICET, Coimbatore



Human Values

By
Dr. S. Kamalasaravanan
Professor of Management Sciences, Hindusthan
College of Engineering and Technology,
Coimbatore

Malumichampatti, Tamil Nadu, India
VXRR+8G5, Malumichampatti, Tamil Nadu 641050, India
Lat 10.890702°
Long 76.991331°
18/05/24 02:10 PM GMT +05:30

PAPERS PUBLISHED BY FACULTY

S.No	Calendar Year	Title of paper	Name of the author/s	Name of Journal
1.	2023-24	Energy performance and economic assessments of a solar air collector and compression heat pump water heater integrated solar humidifier desalination system.	K. Siva, S.Sivakumar, M.Mohanraj,	Journal of Processes Mechanical Engineering
2.	2023-24	Performance investigation on flat plate solar water collector using a hybrid nano-enhanced phase change material (PCM).	Bharathiraja, T. Ramkumar, L. Karthick, M. Mohanraj.	Journal of Energy Storage
3.	2023-24	Performance of direct expansion photovoltaic-thermal evaporator assisted compression heat pump water heaters using a zeotropic mixture	J. Yogaraj M. Mohanraj, J. Manikandan, P. Muthusamy,	Solar Energy
4.	2023-24	Investigations of performance characteristics on Direct Metal Laser Sintered MONEL K-500 Superalloy	M. Mani, M. Mohanraj, A.G. Karthikeyan, K. Kalaiselvan..	Materials Science and Technology
5.	2023-24	Efficacy of refrigerants in thin metallic coated wickless heat pipes; a comparative study.	C. Senthilkumar, A.S. Krishnan, A.B. Solomon, M. Mohanraj,	Journal of Processes Mechanical Engineering

6.	2023-24	Numerical performance investigation of a photovoltaic-thermal hybrid collector-evaporator with different tube configurations for heat pumps.	A. James, S.R. Sahoo, A.K.Raj, M. Mohanraj, M. Srinivas, S.	Journal of Processes Mechanical Engineering
7.	2023-24	Experimental investigation and modelig of date drying under forced convection solar dryers.	T, Seerangurayar, A.M. Al-Ismail, L.H.J. Jeewantha, G. Jeevarathinam, R. Pandiselvam, S. Dinesh kumar, M. Mohanraj, Punit Singh.	Biomass Conversion and Biorefinery
8.	2023-24	Performance of Direct Expansion Photovoltaic-Thermal Evaporator Assisted Compression Heat Pump Water Heaters using a Zeotropic Mixture	J Yogaraja, M Mohanraj, J Manikandan P Muthusamy	Solar Energy
9.	2023-24	Implication of Brewer's Rule in Data Ware House Design	Ramakrishnan R John Benito Atul A Gokhale, J Manikandan, E N Ganesh, C Srinivasan	IEEE
10.	2023-24	International Journal of Science, Engineering and Technology	Dr.C.Nithyanandam Dr.K.Siva, R Sakthi & S Sanjai	International Journal of Science, Engineering and Technology

				Analytics and Cloud) (I-SMAC-2022).
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Author Name	Book Title	Publisher
Dr.K.Siva	Engineering Graphics	Maruthi
Dr.K.Siva	Engineering Practices laboratory Manual	Cengage
Dr.J.Manikandan	Machine Design	Jayalakshmi Publishers
Dr.J.Manikandan	Fluid Mechanics	GCS Publishers
Dr. K. Kalaivani, Ms. Sai Preethi, Dr. P. Jeyalakshmi , Dr. G. Valarmathi	Thermoelectric Dehumidifier Based Water Generator	IIP Series
C. Nithyanandam, K. Siva, V. Senthil Murugan, and K. Sriharrish	Renewable Energy Optimization, Planning and Control Proceedings of ICRTE 2023	Springer Nature
L. Karthick Parth Gaud, C. Sailaja, Kode Jaya Prakash, Yagya Dutta Dwivedi	Applications of Nano-Fluids in the Various Engineering Fields	IGI Global

Ajay Reddy, L.Karthick, R.Roopu	Advancing Health Monitoring with cognitive IOT,Rapid ML and Mechanical System	IGI Global
L.Karthick, Laxmi Mishra, Ganesh Babu, Ravivarman, S.Saravanan	AI- Empowered smart electricity system with predictive maintenance integration	IGI Global
Madhumitha, Elangovan, Atowar, L.Karthick	Cutting Edge AI-Powered driverless delivery solution	IGI Global
P.Prabhakaran, Mukesh, Kaushal, Ganesh Babu, L.Karthick	Integrating Mechanical systems with Biological inspiration: Implementing sensor gating in AI vision	IGI Global
S.Kavitha, L.Karthick, R.Prabhu, Atowar Islam	Utilizing Cutting edge AI technology in geriatric care microbotics	IGI Global
Hemanth kelagadi, L.Karthick, Ravikiran, Raj thilak	An enhanced taxi demand perception system suing fusion and automated sensor integration	IGI Global
Ketut Adi wirayasa, Abhijeet, Madhumitha, L.Karthick	ML based HR business intelligence with predictive maintenance Integration	IGI Global
L.Vadivukarasi, L.Karthick, Dler, Rajesh sharma, Durga devi	Nurturing Human Robot interaction & crucial role of dialogue & explicit AI	IGI Global

L.Karthick, Senthil Kumar K, Vadivukarasi L, Dler, R. Aarthi	Advanced Electronic Healthcare Application Using Mechanical Renewable Energy for Long-Term Population	IGI Global
Dr. L. Karthick	Manufacturing Engineering and Technology	VA Book Publication
Dr. L. Karthick, S.Sivakumar	Strength of Materials	VA Book Publication

STUDENT ACHIEVEMENTS

S. No	Name of the Student	Class	Name of Project	Fund received Y/N	Amount in (Rs.)
1.	Tamilnadu State Government	IV MECH	Niral Innovation Challenge	Y	10,000
2.	AICTE -VAANI Scheme	IV MECH	Smart City & Mobility	Y	2,00,000
3.	Tamilnadu State Government	IV MECH	Niral Innovation Challenge	Y	10,000
4.	Tamilnadu State Government	IV MECH	Niral Innovation Challenge	Y	10,000
5.	TNSDC	IV MECH	Two stage cascade heat pump in high temperature	Y	10000
6.	HICET (Research Seed Money)	IV MECH	Heat Pump assisted desalination system	Y	160000
7.	BIS	IV MECH	Youth to Youth Connect Campaign	Y	30000
8.	Tamilnadu State Government	IV MECH	Niral Innovation Challenge	Y	10,000

Efficycle



Hindusthan College of Engineering and Technology (Coimbatore) students looking cheerful with their vehicle securing Overall champion for the "Efficycle 2024" competition held at Punjab.

Event	SAE EFFICYCLE 2022
Team Name	HINDUSTHANI LAHURIANS 10.1
Date	November Jan 24, 2024
Venue	Lovely Professional University, Jalandhar, Punjab.
Achievement	Overall Dynamic First position, Best Business Plan, Best Innovation, Overall Championship in Efficycle 2024
All Indian Rank	all over India in 1 st rank with a score of 1313 points.





Hindusthan College of Engineering and Technology (Coimbatore) students looking cheerful with their vehicle securing Overall champion for the "Efficycle 2024" competition held at Punjab.

Event	SAE EFFICYCLE 2024
Team Name	HINDUSTHANI LAHURIANS 10.2
Date	November Jan 24, 2024
Venue	Lovely Professional University, Jalandhar, Punjab.
Achievement	Overall Dynamic First position, Overall Championship in Efficycle 2024
All Indian Rank	all over India in 1 st rank with a score of 1313 points.




Hindusthan College of Engineering and Technology (Coimbatore) students looking cheerful with their vehicle securing Overall champion for the "SEVC-SOLAR 2023" competition held at Coimbatore.

Date	2-04-2023
Venue	Hindusthan College of Engineering and Technology, Coimbatore
Achievement	Best Acceleration award Best Built Quality Overall Runner-up
All Indian Rank	2 nd rank all over India with three award





Hindusthan College of Engineering and Technology (Coimbatore) Mechanical Engineering students looking cheerful with their vehicle securing 12th place for the “Solar Vehicle Championship SUVVC 2020” competition held at HICET

Date	2-04-2023
Venue	Hindusthan College of Engineering and Technology, Coimbatore
Achievement	Team Sprit award
All Indian Rank	3 rd rank all over India with one award



Hindusthan College of Engineering and Technology (Coimbatore) Mechanical Engineering students looking cheerful with their vehicle securing 12th place for the “Solar Vehicle Championship SUVVC 2020” competition held at HICET Coimbatore.

Date	2-04-2023
Venue	Hindusthan College of Engineering and Technology, Coimbatore
Achievement	Team Sprit award
All Indian Rank	4 th rank all over India with one award





Date	29-02-2024
Venue	Manipal Institute of Technology, Udupi
Achievement	Best Build Quality Rusk in dust 1st Overall Third hovering and drag 1st
All Indian Rank	3 rd rank all over India with Three award



Date	27-02-2023
Venue	Hindusthan College of Engineering and Technology, Coimbatore
Achievement	Best Virtual Presentation First team TI Clear Best Caption award Best Driver Award Best Innovation award Best BP award Best Cost Optimization award Best vehicle design award Light weight vehicle Dabsa award Best Faculty award Over champion
All Indian Rank	1 st rank all over India with 11 awards



Date	27-02-2024		
Venue	Hindusthan College of Engineering and Technology, Coimbatore		
Achievement	1st Runner up	Best Aesthetic	
	Endurance 1s	Best Design and CAE	
	Best female participant	Best Business plan	
All Indian Rank	1 st rank all over India with Five awards		



Date	27-02-2024		
Venue	Hindusthan College of Engineering and Technology, Coimbatore		
Achievement	• Skid pad 1st		
All Indian Rank	3 rd rank all over India with one award		





Date	29-02-2024
Venue	Manipal Institute of Technology, Udipi
Achievement	Best captain award Auto cross 1st Manuverability 1st Skid Pad 1st Overall Runner-up
All Indian Rank	2 nd rank all over India with Four awards



CHIEF EDITOR

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

EDITORS

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

