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EVEN SEMESTER

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DEPARTMENT OF MECHANICAL ENGINEERING

NEWS LETTER

MECHANICAL

HINDUSTHAN

ENGINEERING

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 2021-2022 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.

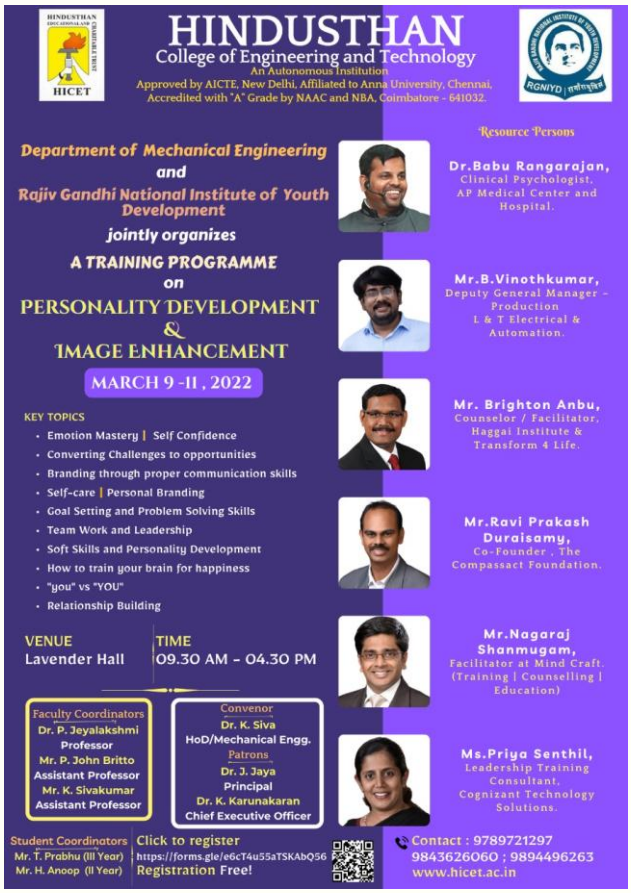
FACULTY ACHIEVEMENTS

S. No	Name of Faculty	Date of Award	Name of the Award/Recognition	Name of the Professional Society
1	Dr.K.Siva	-	Treasurer (2020-2022)	SAEINDIA Southern Section.
2	Dr.Y.Ras Mathew	-	Treasurer (2020-2022)	SAEINDIA Southern Section, Coimbatore Division.
3	Dr. P. Jeyalakshmi Professor	01.04.2021	Students Chair of Coimbatore ISHRAE chapter (2021-2022).	ISHRAE
4	Dr. P. Jeyalakshmi Professor	9.05.2022 to 11.05.2022	Grants Received 75,000 Rs.	Rajiv Gandhi national Institute of Youth Development
5	Dr. P. Jeyalakshmi Professor	17.05.2022 to 19.05.2022	Grants Received 50,000 Rs.	Indian national Science Academy

PROGRAMMES CONDUCTED

Webinar on "Entrepreneurship Awareness"
Chief Guest
Ms.N.Rajarajeswari, Director, Power IAS Academy, on 27th January 2022.

STTP on
"Entrepreneurship Skill Development"
21st February to 25th February 2022.



Training Programme on
"Personality Development & Image Enhancement"
9th March to 11th March 2022.

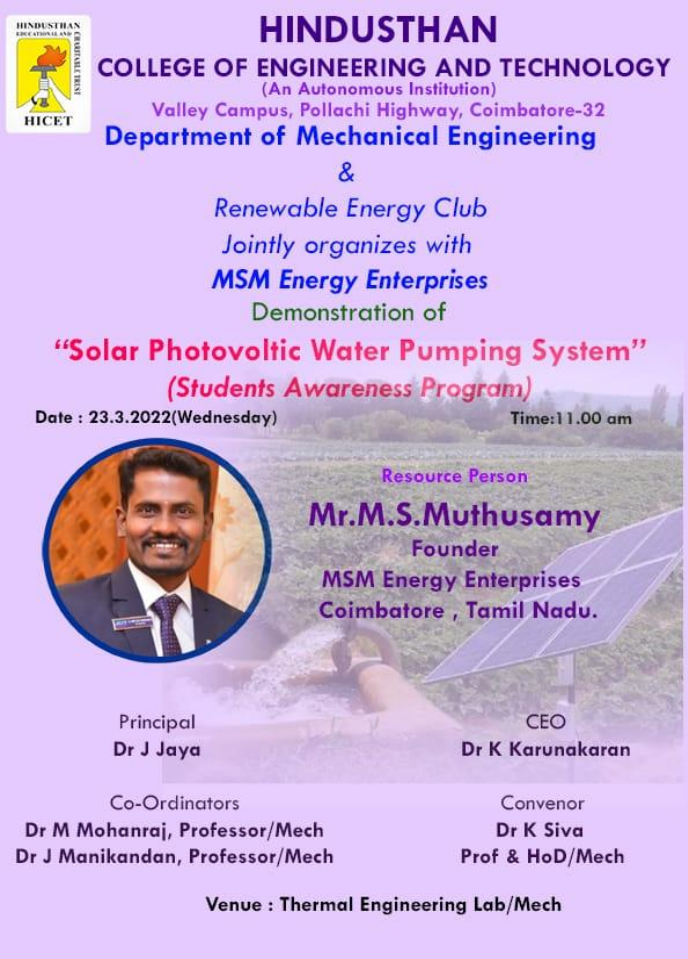
A National Seminar on
"Green Technologies for Sustainable Future"
17th May to 19th May 2022.

National IP Awareness Mission Event under KAPILA
Chief Guest
Mr.P.Hariprasath, Examiner of Patents & Designs,
Intellectual Property Office - Chennai,
On 27th April 2022.

Awareness program on IPR under NIPAM
Chief Guest
Mr.P.Hariprasath, Examiner of Patents & Designs,
Intellectual Property Office - Chennai,
On 2nd March 2022.

A webinar on "Advancement in wind Energy Assessment"
Chief Guest
Dr.Prem kumar Chaurasiya, AP/MECH/Bansal Institute of Science and Technology-Madhya Pradesh,
On 21st February 2022.

A Seminar on
"Research Publications and its Impacts"
Chief Guest
Dr.M.Mohanraj,
Professor/Mechanical/HICET,
On 27th January 2022.



Demonstration of
"Solar Photovoltaic Water Pumping System"
Chief Guest
Mr.M.S.Muthusamy, Founder – MSM Energy Enterprises, Coimbatore
On 23rd March 2022.

PAPERS PUBLISHED BY FACULTY

S.No	Title of paper	Name of the author/s	Name of Journal
1.	Thermal analysis of photovoltaic-thermal collectors - A review	Dr.M.Mohanraj (Professor)	Journal of Thermal Analysis & Calorimetry
2.	Characterization of mechanical, electrical & thermal properties of Ag nanoparticle-reinforced Al6061 alloy	Dr.M.Mohanraj (Professor)	Journal of Thermal Analysis and Calorimetry
3.	Photovoltaic-thermal collector assisted heat pumps using environment-friendly refrigerants.	Dr.M.Mohanraj (Professor)	Proceedings of the Institution of Mechanical Engineers Part E Journal of Process Mechanical Engineering
4.	CFD modeling of a gravel coarse aggregate sensible heat storage assisted single slope solar still	Dr.M.Mohanraj (Professor)	Desalination and Water Treatment
5.	Environment friendly alternative options for automobile air conditioners – A review	Dr.M.Mohanraj (Professor)	Journal of Thermal Analysis and Calorimetry
6.	Experimental studies on photovoltaic-thermal heat pump water heaters using variable frequency drive compressors	Dr.M.Mohanraj (Professor)	Sustainable Energy Technologies and Assessments
7.	Grain size refinement, texture analysis & effect on the tensile properties of a novel Inconel 718	Dr.M.Mohanraj (Professor)	Materials Letters
8.	Performance improvements of single slope solar stills using magnets and graphite plate fins.	Dr.M.Mohanraj (Professor)	Environmental Science and Pollution Research
9.	Experimentsal assessment of vehicle air conditioners working with R134a and R430A	Dr.M.Mohanraj (Professor)	Journal of the Brazilian Society of Mechanical Sciences and Engineering
10.	Studies on adhesion strength and corrosion behaviour of ZnO-Mg coated on AISI 4140	Dr.M.Mohanraj (Professor)	Surfaces and Interfaces
11.	Performance & economic analysis of a heat pump water heater assisted regenerative solar still using latent heat storage	Dr.M.Mohanraj (Professor)	Applied Thermal Engineering

12.	Performance analysis of crushed gravel sand heat storage & biomass evaporator-assisted single slope solar still	Dr.M.Mohanraj (Professor)	Environmental Science and Pollution Research
13.	Assessment of single slope solar still using block & disc magnets via productivity, economic, & enviro-economic perspectives : A comparative Study	Dr.M.Mohanraj (Professor)	Environmental Science and Pollution Research
14.	Experimental thermodynamic performance analysis of semi-transparent photovoltaic-thermal hybrid collectors using nanofluids	Dr.M.Mohanraj (Professor)	Journal of Process Mechanical Engineering
15.	Thermally Radiative Casson Fluid Flow over a Cylinder with Newtonian Heating and Heat generation/absorption	Dr.M.Mohanraj (Professor)	Journal of Physics - Conference Series
16.	Experimental studies on direct expansion solar thermal heat pump systems using R430A as a substitute to R134a	Dr.M.Mohanraj (Professor)	Journal of Process Mechanical Engineering
17.	Thermodynamic analysis of single slope solar still using graphite plates and block magnets at seasonal climatic conditions	Dr.M.Mohanraj (Professor)	Water Science & Technology
18.	Effect of deposition thickness on microstructure and thermal behaviour of ZnO-Mg coated AISI 4140 for automotive applications	Dr.M.Mohanraj (Professor)	Journal of Process Mechanical Engineering
19.	Optimization of performance of coarse aggregate-assisted single-slope solar still via taguchi approach	Dr.M.Mohanraj (Professor)	Journal of Renewable Energy & Enviroment
20.	Monitoring the neural network modelling of wear behaviour of Ti-6Al-4V reinforced with nano B4C particle	Dr.M.Mohanraj (Professor)	Materials Today: proceedings
21.	Evaluation of welding strength & optimization on seam welding of domex steel	Dr. J. Manikandan (Professor)	Journal of Materials today Proceedings
22.	OverFeat Network Algorithm for Fabric Detect Detection in the Textile Industry	Dr. J. Manikandan (Professor)	Journal of Innovative Image Processing
23.	Sustainable Manufacturing - A review of the state of the art	Dr.S.Kannan (Associate Professor)	Renewable & Sustainable Energy Reviews

24.	Rapid Prototyping Technology	Dr.C.Nithyanandam (Associate Professor)	International Journal of Research in Engineering and Science
25.	Optimizing the Performance of an Automatic Clamping System for Gear-Shaping	Dr.C.Nithyanandam (Associate Professor)	International Journal of Scientific Research in Engineering and Management
26.	A MACHINE TO MAKE SOAP FROM USED COOKING OIL USING SEMI AUTOMATIC PROCESS	Dr.C.Nithyanandam (Associate Professor)	International Journal of Current Science
27.	Design and Analysis of Centrifugal Pump Impeller Made of Glass Fiber Material	Dr.C.Nithyanandam (Associate Professor)	International Journal of Research and Analytical Reviews
28.	Machines	Dr.P.N.Karthikeyan (Associate Professor)	Tierärztliche Praxis
29.	Investigations on Machining Performance of Monel 400 Super Alloy	Dr.P.N.Karthikeyan (Associate Professor)	International Journal of Innovations in Engineering and Technology
30.	Assessment of single slope solar still using block & disc magnets via productivity, economic, & enviro-economic perspectives : A comparative Study	Dr.V.Senthil Murgan (Associate Professor)	Environmental Science and Pollution Research
31.	Vehicle safety system for two wheeler – A critical review	Mr.C.A.Jagadish (Assistant Professor)	Journal of Materials today Proceedings
32.	Performance & economic analysis of a heat pump water heater assisted regenerative solar still using latent heat storage	Mr.L.Karthik (Assistant Professor)	Applied Thermal Engineering
33.	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	Mr.L.Karthick (Assistant Professor)	Materials Today: proceedings
34.	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	Mr.S.Sivakumar (Assistant Professor)	Materials Today: proceedings
35.	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	Mr.A.Sasikumar (Assistant Professor)	Materials Today: proceedings

36.	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	Mr.A.Prabhu (Assistant Professor)	Materials Today: proceedings
37.	Modelling and analysis of an EN8 crankshaft in comparison with AISI 4130 crankshaft material	Mr.L.Karthick (Assistant Professor)	Materials Today: proceedings
38.	CFD analysis of rotating diffuser in a SUV vehicle for improving thermal comfort	Mr.L.Karthik (Assistant Professor)	Journal of Materials today Proceedings
39.	Vehicle safety system for two wheeler – A critical review	Mr.L.Karthik (Assistant Professor)	Journal of Materials today Proceedings

MoU Signed with Industry

Souriau India Pvt Ltd – Coimbatore

STUDENT ACHIEVEMENTS – Mr.Rathnavel (Chess Master)			
First Saturday GM March 2022	(715867) Nagy Laszlo, IO	Budapest , Hungary	1st Place , 3rd GM Norm Certificate
Vezerkepzo GM March 2022	GM Attila Czebe	Budapest , Hungary	5th Place
First Saturday GM 2022 April	(715867) Nagy Laszlo, IO	Budapest , Hungary	6th Place
Vezerkepzo GM Easter	GM Attila Czebe	Budapest , Hungary	None

Name of Student	Date of Award	Name of the Award / Prize	Organizer
Logesh R M	19.4.2022	Third Prize - MYSTIFY	Shri Nehru Maha Vidyalaya College of Arts and Science
Nilan Sujai A	19.4.2022	Third Prize - MYSTIFY	Shri Nehru Maha Vidyalaya College of Arts and Science
Sai Madhan G Rishwanth R Jershan Jose	09-05-2022	Bicycle Event- Best maneuverability	Bannari amman Institute of Technology, Sathyamangalam

CHIEF EDITOR

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

EDITORS

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Assistant Professor

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