

VOLUME XIV - A

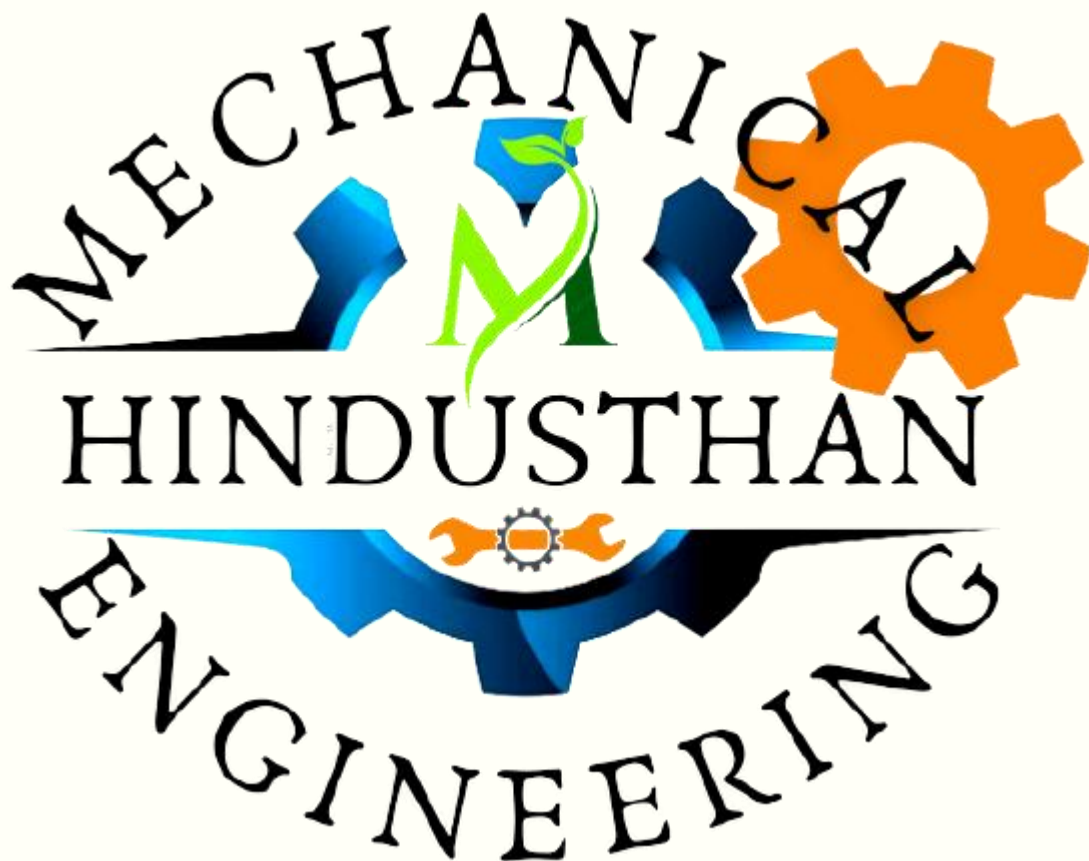
2021-2022

EVEN SEMESTER

ALMANAC

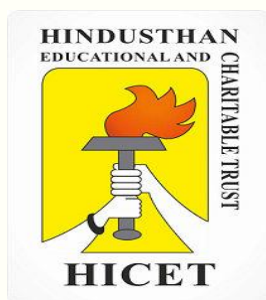
DEPARTMENT OF MECHANICAL ENGINEERING

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 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 the Award/Recognition	Name of the Award/Recognition	Name of the Professional Body
1.	Dr.K.Siva Professor	--	Treasurer (2020-2022)	SAEINDIA Southern Section.
2.	Dr.K.Siva Professor	--	Chairman (2020-2022)	SAEINDIA – Coimbatore Division
3.	Dr.K.Siva Professor	15.09.2021	Awarded as “Best organiser”	Hindusthan College of Engineering and Technology.
4.	Dr. M. Mohanraj Professor	11.11.2021	Top 2% Scientist	Stanford university – USA.
5.	Dr. M. Mohanraj Professor	15.09.2021	Received seed money for Research Project.	Hindusthan College of Engineering and Technology.
6.	Dr. M. Mohanraj Professor	15.09.2021	Awarded as “Best Teacher Senior”	Hindusthan College of Engineering and Technology.
7.	Dr.J.Manikandan Professor	15-10-2021	Projects Grants Received Rs.50,000 for Dates Seed Powder as a by- product using 3D Printing	Insta 3D Technologies Pvt. Ltd., Coimbatore.
8.	Dr.J.Manikandan Professor	15.09.2021	Received seed money for Research	Hindusthan College of Engineering

DEPARTMENT OF MECHANICAL ENGINEERING

			Project.	and Technology.
9.	Dr.C.Nithyanandam Associate Professor	25-09-2021	Projects Grants Received Rs.35,400 for 'Design and analysis of FRP Mould using 3D Printer'	3D SMILE TECH, Coimbatore.
10.	Dr.Y.Ras Mathew	--	Treasurer (2020-2022)	SAEINDIA Southern Section, Coimbatore Division.
11.	Dr.Y.Rasmathew, Associate Professor	02-08-2021	Projects Grants Received Rs.40,000 for 'Design and Development of Coconut shell cutter'	GSR Marachekku Aalai.
12.	Mr.N.Prasannavenkates an Assistant Professor	15.09.2021	Awarded as "Best NSS officier"	Hindusthan College of Engineering and Technology.
13.	Mr. L. Karthick Assistant Professor	15.09.2021	Awarded as "Best Teacher Junior"	Hindusthan College of Engineering and Technology.

PROGRAMMES CONDUCTED



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.
Coimbatore - 641032.

MECHANICAL ENGINEERING

Department of Mechanical Engineering

in association with
HICET-ISHRAE COIMBATORE CHAPTER
Organizes
ORIENTATION PROGRAMME
on
Opportunities in Heating, Ventilating, Air Conditioning and Refrigeration Industries

RESOURCE PERSONS

Dr. K.Siva
Professor and Head
Mechanical Engineering,
HICET, Coimbatore.

Dr. M.Mohanraj
Professor
Mechanical Engineering,
HICET, Coimbatore.

Mr. S.Mohamed Rasith
HICET - Alumnus /
HVAC Design Engineer
YUDEK Engineering Pvt.Ltd.,
Chennai

OCTOBER 04, 2021 @ 10.00 AM

Faculty Advisor: **Mr. P. John Britto**
Coordinators: **Dr. P. Jeyalakshmi, Mr. K.Sivakumar**
Convenor: **Dr. K. Siva HOD, Mechanical Engineering**
Patron: **Dr. K. Karunakaran CEO and Principal**

Indian Society of Heating, Refrigerating and Air Conditioning Engineers

HICET – ISHRAE Coimbatore Chapter Organizes ORIENTATION PROGRAMME on “Opportunities in Heating, Ventilation, Air Conditioning and Refrigeration Industries” On 4th October 2021.

Technical Seminar on “IPR Innovations and Entrepreneurship”
Chief Guest
Mr.A.Jothi Murugan, Founder, CEO - INVENIRE,
on 4th December 2021.



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 and NBA. Coimbatore - 641032.

MECHANICAL ENGINEERING

Department of Mechanical Engineering

in association with
IPR CLUB
signing MoU between
INVENIRE & HICET Business Incubator
and
organize
TECHNICAL SEMINAR
on
"IPR- Innovations and Entrepreneurship "
IIC - SELF DRIVEN ACTIVITY

Mr. A.JOTHI MURUGAN
Founder, CEO
INVENIRE

04 DECEMBER 2021
11.30 AM - 01.30 PM
CSE SEMINAR HALL

Faculty Coordinator: **Dr. Y.Ras Mathew, ASP/Mech**
IPR Cell Coordinator: **Dr. C. Nithyanandam Associate Professor**

Convenor: **Dr. K. Siva HOD/Mechanical**
Patrons: **Dr. J. Jaya Principal, Dr. K. Karunakaran Chief Executive Officer**

PAPERS PUBLISHED BY FACULTY

S.No	Calendar Year	Title of paper	Name of the author/s	Name of Journal
1	2021	Thermal analysis of photovoltaic-thermal collectors - A review	Dr.M.Mohanraj	Journal of Thermal Analysis & Calorimetry
2	2021	Characterization of mechanical, electrical & thermal properties of Ag nanoparticle-reinforced Al6061 alloy	Dr.M.Mohanraj	Journal of Thermal Analysis and Calorimetry
3	2021	Photovoltaic-thermal collector assisted heat pumps using environment-friendly refrigerants.	Dr.M.Mohanraj	Proceedings of the Institution of Mechanical Engineers Part E Journal of Process Mechanical Engineering
4	2021	CFD modeling of a gravel coarse aggregate sensible heat storage assisted single slope solar still	Dr.M.Mohanraj	Desalination and Water Treatment
5	2021	Environment friendly alternative options for automobile air conditioners – A review	Dr.M.Mohanraj	Journal of Thermal Analysis and Calorimetry
6	2021	Experimental studies on photovoltaic-thermal heat pump water heaters using variable frequency drive compressors	Dr.M.Mohanraj	Sustainable Energy Technologies and Assessments
7	2021	Grain size refinement, texture analysis & effect on the tensile properties of a novel Inconel 718	Dr.M.Mohanraj	Materials Letters
8	2021	Performance improvements of single slope solar stills using magnets and graphite plate fins.	Dr.M.Mohanraj	Environmental Science and Pollution Research

9	2021	Experimental assessment of vehicle air conditioners working with R134a and R430A	Dr.M.Mohanraj	Journal of the Brazilian Society of Mechanical Sciences and Engineering
10	2021	Studies on adhesion strength and corrosion behaviour of ZnO-Mg coated on AISI 4140	Dr.M.Mohanraj	Surfaces and Interfaces
11	2021	Performance & economic analysis of a heat pump water heater assisted regenerative solar still using latent heat storage	Dr.M.Mohanraj	Applied Thermal Engineering
12	2021	Performance analysis of crushed gravel sand heat storage & biomass evaporator-assisted single slope solar still	Dr.M.Mohanraj	Environmental Science and Pollution Research
13	2021	Assessment of single slope solar still using block & disc magnets via productivity, economic, & environmental perspectives : A comparative Study	Dr.M.Mohanraj	Environmental Science and Pollution Research
14	2021	Experimental thermodynamic performance analysis of semi-transparent photovoltaic-thermal hybrid collectors using nanofluids	Dr.M.Mohanraj	Journal of Process Mechanical Engineering
15	2021	Thermally Radiative Casson Fluid Flow over a Cylinder with Newtonian Heating and Heat generation/absorption	Dr.M.Mohanraj	Journal of Physics - Conference Series
16	2021	Experimental studies on direct expansion solar thermal heat pump systems using R430A as a substitute to R134a	Dr.M.Mohanraj	Journal of Process Mechanical Engineering

17	2021	Thermodynamic analysis of single slope solar still using graphite plates and block magnets at seasonal climatic conditions	Dr.M.Mohanraj	Water Science & Technology
18	2021	Effect of deposition thickness on microstructure and thermal behaviour of ZnO-Mg coated AISI 4140 for automotive applications	Dr.M.Mohanraj	Journal of Process Mechanical Engineering
19	2021	Optimization of performance of coarse aggregate-assisted single-slope solar still via taguchi approach	Dr.M.Mohanraj	Journal of Renewable Energy & Environment
20	2021	Monitoring the neural network modelling of wear behaviour of Ti-6Al-4V reinforced with nano B4C particle	Dr.M.Mohanraj	Materials Today: proceedings
21	2021	Evaluation of welding strength & optimization on seam welding of domex steel	Dr. J. Manikandan	Journal of Materials today Proceedings
22	2021	Sustainable Manufacturing - A review of the state of the art	Dr.S.Kannan	Renewable & Sustainable Energy Reviews
23	2021	Optimization on Aircraft Landing Schedule Problems by Cuckoo Search Algorithm	Dr.C.Nithyanandam	Tierärztliche Praxis
24	2021	Investigations on Machining Performance of Monel 400 Super Alloy	Dr.C.Nithyanandam	International Journal of Innovations in Engineering and Technology
25	2021	Optimization on Aircraft Landing Schedule Problems by Cuckoo Search Algorithm	Dr.P.N.Karthikeyan	Tierärztliche Praxis

26	2021	Investigations on Machining Performance of Monel 400 Super Alloy	Dr.P.N.Karthikeyan	International Journal of Innovations in Engineering and Technology
27	2021	Assessment of single slope solar still using block & disc magnets via productivity, economic, & environmental perspectives : A comparative Study	Dr.V.Senthil Murgan	Environmental Science and Pollution Research
28	2021	Performance & economic analysis of a heat pump water heater assisted regenerative solar still using latent heat storage	Mr.L.Karthik	Applied Thermal Engineering
29	2021	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	L.Karthick	Materials Today: proceedings
30	2021	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	S.Sivakumar	Materials Today: proceedings
31	2021	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	A.Sasikumar	Materials Today: proceedings
32	2021	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	A.Prabhu	Materials Today: proceedings

BOOK / BOOK CHAPTER PUBLISHED BY FACULTY

Author Name	Chapter Name	Book Title	Publisher
Dr Siva K	--	Micro Electro Mechanical Systems A fundamental approach	Notion Press
Dr Mohanraj M	Data driven optimization of manufacturing processes	Materials for Lightweight Constructions	CRC Press
Dr Manikandan J	--	Machine Design	Jayalakshmi Publication
Dr Manikandan J	--	Fluid Mechanics	GCS Publishers
Dr.P.Jeyalakshmi	NOx Emission Control Technologies in Stationary and Automotive Internal Combustion Engines: Approaches Toward NOx Free Automobiles	Effect of engine operating parameters in NOx reduction	Elsevier publishers

STUDENT ACHIEVEMENTS – Mr.Rathnavel (Chess Master)

AICF - Senior National Online Chess Championship 2021	All India Chess Federation (AICF)	Online	7th Place
AICF National Junior Open Online Chess Championship 2021	All India Chess Federation (AICF)	Online	7th Place
Vezerkepzo GM Aug 2021	Czebe, Attila Hungary	Budapest , Hungary	4th Place
First Saturday GM September 2021	IO Nagy,Laszlo (HUN) 715867	Budapest , Hungary	2nd Place , 1st GM Norm Certificate
Vezerkepzo *** 2021/09 / GM MIX-group	GM Attila Czebe	Budapest , Hungary	1st Place , 2nd GM Norm Certificate
White Horse 2021. *** GM	Fehér Ló Sakkegyesület Mosonmagyaróvár	Mosonmagyarovar , Hungary	6th Place
First Saturday GM October 2021	(715867) Nagy Laszlo, IO	Budapest , Hungary	2nd Place
R. Hanumantha Memorial Cup All India Open Rapid Rating Chess Tournmant 2021	Mandya Chess Academy & Smart Queen's Chess Academy	Mandya , India	1st Place , 25000 Rs Cash Prize
R. Hanumantha Memorial Cup All India Open Blitz Rating Chess Tournmant	Mandya Chess Academy & Smart Queen's Chess Academy	Mandya , India	1st Place 12,500 Cash Prize



MoU Signed with Industry



Madras Radiators And Pressings Ltd.

**Madras Radiators and Pressings
Limited - Coimbatore**

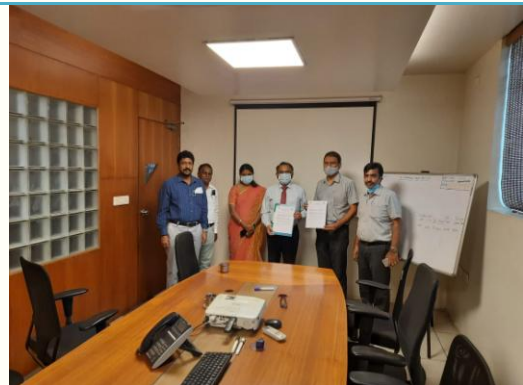


Cutting Systems

**Messer Cutting Systems India Pvt Ltd -
Coimbatore**



IndoShell cast Pvt Ltd - Coimbatore



INVENIRE
INVENT YOUR FUTURE

INVENIRE - Coimbatore

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**

