

VOLUME XV - B

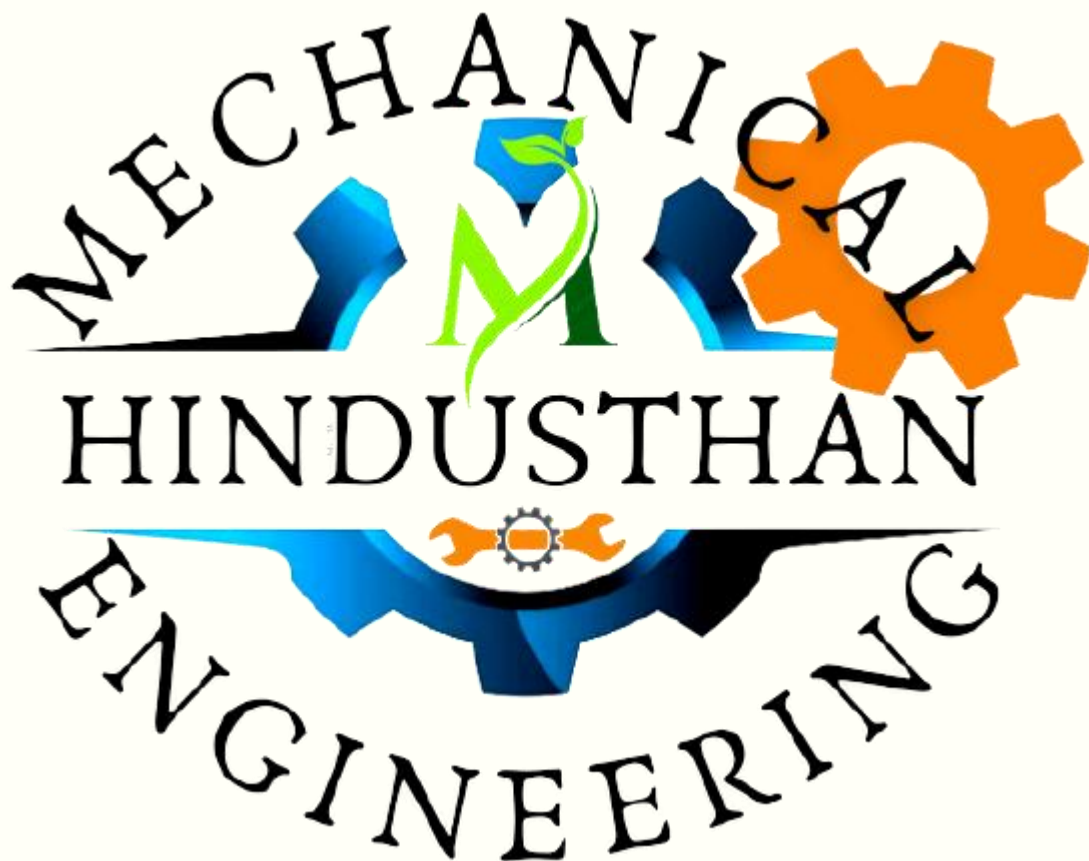
2022-2023

EVEN SEMESTER

ALMANAC

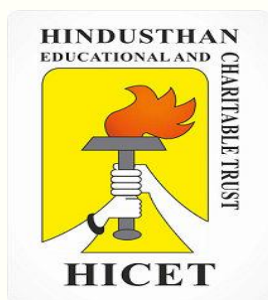
DEPARTMENT OF MECHANICAL ENGINEERING

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 2022-2023 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	Name of the Professional Society
1.	Dr.K.Siva Professor	July 2022	Secretary for SAEINDIA Southern Section Management Committee for the term 2022-2024.	SAEINDIA Southern Section
2.	Dr.K.Siva Professor	July 2022	Chairman for SAEINDIA Southern Section Coimbatore Division for the terms 2018-2020, 2020-2022 and 2022-2024.	SAEINDIA – Coimbatore Division
3.	Dr.K.Siva Professor	Feb 2023	Appreciation Awards for 'Solar vehicle innovation contest' hosted at HICET for 2023.	HICET
4.	Dr.Y.Rasmathew, Associate Professor	July 2022	Treasurer (2022-2024)	SAEINDIA – Coimbatore Division

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	"Vertical axis wind turbine with flapping Mechanism".	Mentor for MSME Funded Project	14 Lakhs
2.	Dr.Y.Ras Mathew, Associate Professor		Received MSME Funded Project	
3.	Dr.Y.Ras Mathew, Associate Professor	Smart Coconut Harvester	Mentor for MSME Funded Project	12.5 Lakhs

PROGRAMMES CONDUCTED

HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY
HICET

Ministry of COMMERCE AND INDUSTRY
DEPARTMENT OF PROMOTION OF INDUSTRY AND INTERNAL TRADE
PATENT OFFICE, CHENNAI- 600032.
In Associated With

INTELLECTUAL PROPERTY INDIA
PATENTS, DESIGNS, TRADE MARKS, GEOGRAPHICAL INDICATIONS

HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY
Valley Campus, Pollachi Highway Coimbatore

INSTITUTION'S INNOVATION COUNCIL
(Ministry of HRD Initiative)

WORLD IP DAY

Department of Mechanical Engineering
&
Intellectual Property Rights (IPR) Cell
Organizes Seminar on
"Awareness Program on Patent and Design"

IIC Self Driven Activity

Resource Person
Dr.C.Nithyanandam
Asso.Prof/Mech , IPR Cell Coordinator
HICET

Date: 26.04.2023 Venue : Kurinji Hall Time : 11.00 AM

Convenor Principal CEO
Dr.K.Siva, HoD/Mech Dr.J.Jaya Dr.K.Karunakaran

Seminar on
"Awareness Program on Patent and Design"

Chief Guest
Dr.C.Nithyanandam
Asso.Prof/Mech/HICET

BIS Club – Inauguration

Chief Guests

Mr. K. Kavim,
Scientist B- BIS-Coimbatore.

Mr. A. Rajeev,
Standards Promotional Officer, BIS-Coimbatore.

HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY
HICET

HINDUSTHAN College of Engineering and Technology
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Accredited with "A" Grade by NAAC and NBA, Coimbatore - 641032.

Bureau of Indian Standards

Department of Mechanical Engineering
and
Bureau of Indian Standards
solicit your esteemed presence for the

INAUGURATION
of
STANDARDS CLUB
Bureau of Indian Standards (BIS)
Government of India.

RESOURCE PERSONS

Mr. K. Kavim, Scientist-B, Bureau of Indian Standards, Coimbatore.
Mr. A. Rajeev, Standards Promotion Officer, Bureau of Indian Standards, Coimbatore.

FEBRUARY 22, 2023 @ 10.00 AM
MULLAI HALL

Faculty Mentor: Mr. L. Karthick, Assistant Professor
Convenor: Dr. K. Siva, HoD/Mechanical Engg.
Patrons: Dr. J. Jaya, Principal; Dr. K. Karunakaran, Chief Executive Officer

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Department of Mechanical Engineering
and
Bureau of Indian Standards
Conducts

QUIZ COMPETITION

Bureau of Indian Standards (BIS)
Government of India.

RESOURCE PERSONS

Mr. K. Kavim, Scientist-B, Bureau of Indian Standards, Coimbatore. Mr. A. Rajeev, Standards Promotion Officer, Bureau of Indian Standards, Coimbatore.

FEBRUARY 22, 2023 @ 10.00 AM
MULLAI HALL

Faculty Mentor: Mr. L. Karthick, Assistant Professor Convenor: Dr. K. Siva, HoD/Mechanical Engg.

Patrons: Dr. J. Jaya, Principal Dr. K. Karunakaran, Chief Executive Officer

BIS Club – Quiz Competition

Chief Guests

Mr. K. Kavim,
Scientist B- BIS-Coimbatore.

Mr. A. Rajeev,
Standards Promotional Officer, BIS-

Standards Writing Competition

Chief Guest

Dr. K. Siva,
Professor/Head – Dept of Mechanical
Hindusthan College of Engg and Tech

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Department of Mechanical Engineering
and
Bureau of Indian Standards

Standard Writing Competition

CASH PRIZE

1st Prize - 1000 Rs
2nd Prize - 750 Rs
3rd Prize - 500 Rs

Venue: Dynamics Lab
Time: 10.00 Am

Faculty Mentor: Mr. L. Karthick, Assistant Professor Convenor: Dr. K. Siva, HoD/Mechanical Engg.

Patrons: Dr. J. Jaya, Principal Dr. K. Karunakaran, Chief Executive Officer

Seminar on

How to write a Research Paper

Resource person
Dr. M.Mohanraj,
Professor – Dept of Mechanical
Hindusthan College of Engg and Tech



PIE Tech

POLLACHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE and Affiliated to Anna University
132/5-B, Dharapuram Main Road, Poosaripatti, Pollachi, Coimbatore - 642 205

sky is the limit

Research Cell & IQAC

We cordially invite you for the



Research Seminar on

“How to Write a Research Paper”

Resource Person

Dr. M. Mohanraj
Professor

Department of Mechanical Engineering
Hindusthan College of Engineering and Technology

Date: 22.04.2023

Time: 09.30 AM

Seminar Hall



PAPERS PUBLISHED BY FACULTY

S.No	Calendar Year	Title of paper	Name of the author/s	Name of Journal
1.	2022-23	Analysis of thermal and hydraulic performances for flow in a wavy channel with varying amplitude.	K. Ajit, Sumit KM, P. Sukumar, M. Mohanraj.	Journal of Thermal Analysis and Calorimetry
2.	2022-23	Experimental investigations on a solar heat pump system having hybrid collector with dual cooling arrangements for delaying frost generation.	A. James, Arun K Raj, M. Srinivas, M. Mohanraj, S. Jayaraj.	Thermal Science and Engineering
3.	2022-23	Exergetic performance of a jet impingement bifacial photovoltaic-thermal (PVT) solar air collector with different packing factors and jet distributions.	W.E. Ewe, K. Sopian, M. Mohanraj, A. Fudholi, N. Asim, A. Ibrahim.	Heat Transfer Engineering
4.	2022-23	Machine Learning and Advanced Technology Based Patient Health Monitoring System	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2022).
5.	2022-23	An Arduino Uno Controlled Fire Fighting Robot for Fires in Enclosed Spaces	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and

				Cloud) (I-SMAC-2022)IEEE Xplore
6.	2022-23	Health Care Assistive System in Hospital for Doctor to View the Patient's Parameter in a Cloud Database using Light Fidelity	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2022).
7.	2022-23	Power Flow Analysis of Transient Stability in Microgrids used in Power Stations	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2022).
8.	2022-23	Deep Learning Features Restoration and Regional Longitudinal Fitting of Computed Tomography Images using Convolution Neural Network	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2022).
9.	2022-23	Artificial Intelligence and Advanced Technology based Bridge Safety Monitoring System	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and



				Cloud) (I-SMAC-2022).
10.	2022-23	Wind Energy System using Boost Converter with Three Phase Inverter	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2022).
11.	2022-23	Metal Oxide Semiconductor Nanostructures Surface Properties for Gas Sensing – A Review	Dr.J.Manikandan	Proceedings of the Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC-2022).
12.	2022-23	Rapid Prototyping Technology	Dr.C.Nithyanandam	International Journal of Research in Engineering and Science
13.	2022-23	Optimizing the Performance of an Automatic Clamping System for Gear-Shaping	Dr.C.Nithyanandam	International Journal of Scientific Research in Engineering and Management (IJSREM)
14.	2022-23	A MACHINE TO MAKE SOAP FROM USED COOKING OIL USING SEMI AUTOMATIC	Dr.C.Nithyanandam	International Journal of Current Science

		PROCESS		
15.	2022-23	Design and Analysis of Centrifugal Pump Impeller Made of Glass Fiber Material	Dr.C.Nithyanandam	International Journal of Research and Analytical Reviews
16.	2022-23	Influence of Nano-/Microfiller Addition on Mechanical and Morphological Performance of Kenaf/Glass Fibre-Reinforced Hybrid Composites	L.Karthick	SCI PAPER
17.	2022-23	Heat Index Based Optimisation of Primary Process Parameters in Friction Stir Welding on Light Weight Materials	L.Karthick	SCI PAPER
18.	2022-23	Energy performance of a compression refrigeration cycle using environment-friendly refrigerants	L.Karthick	JOURNAL
19.	2022-23	The 2nd International Conference on Renewable Technologies In Engineering (ICRTE-22	Dr.C.Nithyanandam, Dr.K.Siva , Dr.V.Senthil Murugan, Mr.K.Sriharrish,	International Conference
20.	2022-23	"Green Communications: A Review of the Current Situation"	"Dr.C.Nithyanandam, Dr.K.Siva , Dr.V.Senthil Murugan, Mr.K.Sriharrish,	"Renewable Energy Optimization, Planning and Control Proceedings of ICRTE 2022"

21.	2022-23	Carburization Effect on Mechanical Properties of EN-12 Steel in Different Quenching Medium at Different Quenching Time Intervals	K.Rameshkumar	International Conference
22.	2022-23	"Third International Conference on Engineering and Advancement in Technology at MALLA REDDY INSTITUTE OF ENGINEERING AND TECHNOLOGY"	"Dr.C.Nithyanandam, Dr.K.Siva , Dr.V.Senthil Murugan, Mr.K.Sriharrish, Dr.Y.Ras Mathew, and Mr.L.Karthick"	International Conference

Author Name	Book Title	Publisher
T. Ramkumar, M. Selvakumar, S.K. Ashok, M. Mohanraj,	Data driven optimization of manufacturing processes. Materials for Light weight Constructions.	CRC Press.
L.Karthick	Manufacturing Engineering and Technology	Scientific International Publishing House
L.Karthick	Energy and Environmental Engineering	Scientific International Publishing House

FACULTY MEMBERS ATTENDED TRAINING IN INDUSTRY

S. No	Date	Name of the Faculty	Name of the Industry
1.	11.5.23 to 12.05.23	Mr.L.Karthick Mr.D.Prabhu	<p>TAARK Electric Vehicles & Equipments PVT Ltd-Pollachi</p>  <p>A photograph showing three men in a workshop setting. They are gathered around a metal frame, likely a vehicle chassis, and appear to be in the process of inspecting or working on it. The man on the left is wearing a light blue shirt, the man in the middle is wearing a yellow shirt, and the man on the right is wearing a white shirt. The background shows various tools and equipment typical of a workshop.</p>
2.	25.5.23 to 26.5.23	Mr.K.Sriharrish	<p>CIRES INDIA-Coimbatore</p>  <p>A photograph of a man in a red patterned shirt looking at a control panel or screen inside a machine. The machine has a large window and various components. A GPS overlay is visible in the bottom left corner of the image, showing a map of Coimbatore, Tamil Nadu, India, with a red location pin. The text of the GPS overlay reads: "Coimbatore, Tamil Nadu, India", "2, Anna Nagar Rd, Indira Garden, Coimbatore, Tamil Nadu 641033, India", "Lat 11.01623°", "Long 77.031703°".</p>

MoU with SchuF Speciality Valves India Pvt Ltd, Coimbatore



STUDENT ACHIEVEMENTS

S. No	Name of Student	Date of Award	Name of the Award / Prize	Organizer
1.	Vigneshwaran	23-11-2022 to 26-11-2022	1st runner up in Overall dynamics - EFFICYCLE Quard	SAE INDIA
	Milinth			
	Naveen			
2.	Jershin Joseh	23-11-2022 to 26-11-2022	Best aesthetics award - EFFICYCLE advance	SAE INDIA
	Mohammed Arsath			
	Prasanna			
	Santhosh			
3.	Jershin Joseh	23-11-2022 to 26-11-2022	Best design award - EFFICYCLE advance	SAE INDIA
	Mohammed Arsath			
	Prasanna			
	Santhosh			
4.	M.Suriyanaveen	23-11-2022 to 26-11-2022	1st runner up in overall dynamic event - EFFICYCLE Conventional	SAE INDIA
	A.Nilan sujai			
	Sevakaperumal			
	Santhosh			
	Mukilan			
	Sivahari			
	Milan Harish			
5.	M.Suriyanaveen	23-11-2022 to 26-11-2022	Best aesthetics award- EFFICYCLE Conventional	SAE INDIA
	A.Nilan sujai			
	Sevakaperumal			
	Santhosh			
	Mukilan			
	Sivahari			
	Milan Harish			
6.	M.Suriyanaveen	29-03-2023 to 03-04-2023	2nd runner up in Overall dynamics - Solar Electric Vehicle	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2023)
	A.Nilan sujai			
	Sevakaperumal			
	Sanjai			
	Mukilan			
	Mukesh			
	Ajay			
	Ajo Joseh			
	Sunilraj			
	Deva			
	Punithan			
Sarath				
Jershin Joseh				
7.	M.Suriyanaveen	29-03-2023 to	1 st prize in Acceleration- Solar Electric Vehicle	SOLAR ELECTRIC VEHICLE
	A.Nilan sujai			

	Sevakaperumal Sanjai Mukilan Mukesh Ajay Ajo Joseh Sunilraj Deva Punithan Sarath Jershin Joseh	03-04-2023		CHAMPIONSHIP(S EVC-2023)
8.	M.Suriyanaveen A.Nilan sujai Sevakaperumal Sanjai Mukilan Mukesh Ajay Ajo Joseh Sunilraj Deva Punithan Sarath Jershin Joseh	29-03-2023 to 03-04-2023	Best Buildup Quality - Solar Electric Vehicle	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2023)
9.	Karthick Sakthi Thangarajan Tamiliniyan Karthikeyan Mohammed Nofel Mouliswaran Velan	29-03-2023 to 03-04-2023	Team Spirit Award – Electric Vehicle	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2023)
10.	Vigneshwaran Naveen Milinth S.Rahul Suryaprasanth Shanu Ashwin	29-03-2023 to 03-04-2023	Best Aesthetics award – Hybrid Category	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2023)
11.	Sundarprakash Vasanthkumar Rajesh Nithish Prasana Nadesh Ragunath	01-09-2022	2nd runner up in Solar Category - Solar Electric Vehicle	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP (SEVC-2022)

	M.Suriyanaveen			
	Tharun			
	Nandhakumar			
	Nandu			
	Kamalesh			
	Sivahari			
	Milan Harish			
	Gideon Selvakumar			
12.	Sundarprakash	01-09-2022	Maneuverability in Solar Electric Vechile	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2022)
	Vasanthkumar			
	Rajesh			
	Nithish			
	Prasana			
	Nadesh			
	Ragunath			
	M.Suriyanaveen			
	Tharun			
	Nandhakumar			
	Nandu			
	Kamalesh			
	Sivahari			
	Milan Harish			
	Gideon Selvakumar			
13.	Sai Mathan	01-09-2022	Overall Second Prize in Electric Vehicle	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2022)
	Sai Chandru			
	S.Rahul			
	Vigneshwaran			
	Sulaiman			
	Sunilraj			
	Pradesh			
	Prasana			
	Sanjai			
	A.Nilan sujai			
14.	Sai Mathan	01-09-2022	Brake Test Award in Electric Vehicle	SOLAR ELECTRIC VEHICLE CHAMPIONSHIP(S EVC-2022)
	Sai Chandru			
	S.Rahul			
	Vigneshwaran			
	Sulaiman			
	Sunilraj			
	Pradesh			
	Prasana			
	Sanjai			
	A.Nilan sujai			



HINDUSTHANI LAHURIANS Bagged awards in the SAE Efficycle Competition held at Lovely Professional University, Jalandhar, Punjab.

Chess Master Mr.Rathinavel Achievement

S.No	Name of the event/tournament	Organized by	Venue/Place	Awards	National / International
1.	3rd SCMA All India Open Fide Rated Rapid Chess Tournament on 4th & 5th Feb 23 @ Virginia Mall Bengaluru	Sri Sadguru Chess Martz & Music Academy Hubballi	Bangalore , India	1st , 25000 Rs Cash Prize	National

CHIEF EDITOR

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

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

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

