

Dr. MAHALINGAM



COLLEGE OF ENGINEERING AND TECHNOLOGY

Enlightening Technical Minds

# Dr. MAHALINGAM

## COLLEGE OF ENGINEERING AND TECHNOLOGY

Affiliated to Anna University, Chennai. Approved by AICTE. Accredited by NBA and NAAC with Grade A++  
Udumalai Road, Pollachi - 642 003.

# DEPARTMENT OF AUTOMOBILE ENGINEERING



# NEWSLETTER

VOLUME - 13

ISSUE- 2

2023-24

**Institution Vision & Mission**

We develop a globally competitive workforce and entrepreneurs.

Mission:

Dr. Mahalingam College of Engineering and Technology, Pollachi endeavors to impart high quality, competency based technical education in Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques

**Department Vision & Mission**

DV: To offer cutting-edge technology in the broad area of automobile engineering and develop globally competitive engineers

DM1: To develop automobile engineering graduates for a successful career in global automotive industry through effective teaching-learning and training.

DM2: To develop the capability of graduates for creating innovative products / systems to enhance the quality of life.

DM3: To inculcate in them the ability to solve societal problems through engineering and professional skills.



**HoD's Message**

Greetings to faculties and Student friends in our journey towards perfection I sincerely hope that our department would provide a platform for the young minds to unleash their innovative ideas to develop the technical and professional skills of our student friends. As the change seems to be the buzz word of the modern are let us change our thoughts to empower and transform ourselves for a bright future.

**PEOs, POs & PSOs**

**PEO1:** Technical Expertise: Actively apply technical and professional skills in engineering practices to face industrial challenges around the globe

**PEO2:** Higher studies and Research: Own their professional and personal development by continuous learning to create new knowledge

**PEO3:** Ethical Knowledge: Conduct themselves in a responsible, professional and ethical manner supporting sustainable economic development, which enhances the quality of life.

**PO1.** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2.** Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3.** 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.

**PO4.** 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.

**PO5.** 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.

**PO6.** 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.

**PO7.** 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.

**PO8.** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9.** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10.** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11.** Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12.** Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

**PSO1.** Analyze the systems behavior and optimize for the results using modelling, simulation and experiments.

**PSO2.** Design automotive components with due considerations of environment and sustainability.

## Journal Publication

Name of the Faculty	Title of the Paper	Name of the Journal
Dr.M.Selvakumar	Thermal characteristics enhancement of Paraffin Wax Phase Change Material (PCM) for thermal storage applications	Renewable Energy
Dr.S K Ashok	Effect of Stacking Sequence on Mechanical Properties of Bamboo/Bagasse Composite Fiber for Automobile Seat Cushions and Upholstery Application	SAE Technical Papers
Dr.D.Shanmugam	Investigation of mechanical and tribological behavior of Al-Ni-Co-MWCNT composites prepared by powder metallurgy technique	Journal of Process Mechanical Engineering
Dr.M.Selvakumar	Microstructure, high temperature wear and corrosion behaviors of UNS R56320-xWC composite fabricated through powder metallurgy	Journal of Materials Engineering and Performance
Dr.M.Selvakumar	Crack free Hard Facing Operations for orifice plate used in Oil Refinery applications	Journal of Process Mechanical Engineering
Dr.M.Selvakumar	Thermal and Mechanical characterisation of friction stir welded dissimilar Aluminum alloys	Journal of Process Mechanical Engineering
Dr.D.Shanmugam	Effects of fiber loadings and lengths on mechanical properties of Sansevieria Cylindrica fiber reinforced natural rubber biocomposites	Materials Research Express



Mr.R.Vishnu Ramesh Kumar	Design and Thermal Analysis of Battery Thermal Management System for EV	SAE Technical Papers
Dr.M.Selvakumar	Cell viability and bioactive coating on additive manufactured polycaprolactone substrate for osteointegration applications	Chemical Physics Impact
Dr.M.Selvakumar	Experimental Investigation on the Microstructure and Mechanical Properties of DSS2205 and SS304L Dissimilar Weldments	surface review and letters
Dr. M. Thirunavukkarasu	Feature of SiO <sub>2</sub> concentration on solar thermal functional characteristics of flat plate solar collector	THERMAL SCIENCE
Dr. M. Thirunavukkarasu	Enhancement and experimental study on thermal behaviour of heat pipe based solar absorber by using copper oxide nanofluid	THERMAL SCIENCE
Dr. M. Thirunavukkarasu	A comprehensive review on the novel approaches using nanomaterials for the remediation of soil and water pollution	Alexandria Engineering Journal

### Patent Publication

Name of the Faculty	Title of the Patent	Application No.	Published/Granted
Mr.N.Dhamodharan	Intelligent Assistive Robot For Elderly Care People	400196-001	Granted
Dr.M.Selvakumar	Pugh matrix based decision making for the bore well rescue method and system thereof	202141020600	Granted

### Conference Publication

Name of the Faculty	Title of the Paper	Name of the Conference	Organizer & Venue
Mr.M.Mahendran	Experimental Investigation of Mechanical Properties and stress analysis of natural fiber reinforced polymer composite spur gear ABAQUS	International Conference on advanced materials and Structures	Rajalakshmi Institute of Technology, Chennai

### Faculty Participation in FDP, Training, Workshop and Seminars

Name of the Faculty	Event Type	Title of the event	Date	Venue
Dr.S.K.Ashok	FDP	Integration of Automotives and smart Mechatronics system for sustainable mobility	31-01-2024 to 04-02-2024	KCE College of Technology
Mr.M.Ponmurugan	FDP	Intellectual property right and patent drafting	04-01-2024 to 12-01-2024	AMET University
Mr.R.,Vishnurameshkumar	FDP	Intellectual property right and patent drafting	04-01-2024 to 12-01-2024	AMET University
Mr.N.Dhamodharan	Training	Training on Process simulate and Plant Simulation	29-01-2024 to 03-02-2024	3D Engineering, Pune
Dr.S.K.Ashok	FDP	Global Conversations in Mechanical Engineering: Bridging Innovation and Sustainability	19-02-2024 to 23-02-2024	Department of Mechanical Engineering, Madanapalle Institute of Technology & Science

Dr.K.Sakthivadivel	FDP	Application of Internet on Things in Mechanical Engineering and Agricultural Engineering Systems	18-03-2024 to 22-03-2024	Sri Ramakrishna College Of Engineering
N.Dhamodharan	FDP	Application of Internet on Things in Mechanical Engineering and Agricultural Engineering Systems	18-03-2024 to 22-03-2024	Sri Ramakrishna College Of Engineering
R.Vishnurameshkumar	FDP	Application of Internet on Things in Mechanical Engineering and Agricultural Engineering Systems	18-03-2024 to 22-03-2024	Sri Ramakrishna College Of Engineering
M.Mahendran	Workshop	Ai Tools	07-04-2024	Online be10X
M.Ponmurugan	FDP	"Properties of Materials	8 Weeks	NPTEL
M.Mahendran	Course	(Nature and Properties of Materials : III) "	26-04-2024 to 27-04-2024	The Indian Institute of Metals Metallurgy material Engineering
Dr.K.Sakthivadivel	FDP	Artificial Intelligence in Materials Engineering	8 Weeks	NPTEL
Dr.K.Sakthivadivel	FDP	Principles Of Casting Technology	06-05-2024 to 10-05-2024	Dr.MCET with Autodesk
M.Mahendran	FDP	Engineering Graphics and Design using Autodesk Fusion	06-05-2024 to 10-05-2024	Dr.MCET with Autodesk
N.Dhamodharan	FDP	Engineering Graphics and Design using Autodesk Fusion	06-05-2024 to 10-05-2024	Dr.MCET with Autodesk

V.D.Tamilarasan	FDP	Engineering Graphics and Design using Autodesk Fusion	06-05-2024 to 10-05-2024	Dr.MCET with Autodesk
R. Vishnurameshkumar	FDP	Engineering Graphics and Design using Autodesk Fusion	06-05-2024 to 10-05-2024	Dr.MCET with Autodesk
M.Mahendran	Industrial Training	Engineering Graphics and Design using Autodesk Fusion	27-05-2024 to 31-05-2024	Ashok leyland-Chennai
R. Vishnurameshkumar	Industrial Training	Industrial Training	27-05-2024 to 31-05-2024	Ashok leyland-Chennai
M.Ponmurugan	FDP	Industrial Training	27-05-2024 to 31-05-2024	Dr.MCET
R.B.Rajeshkumar	FDP	Cyber Security	27-05-2024 to 31-05-2024	Dr.MCET

### Faculty Completed Online Courses

Name of The Faculty	Title of ONLINE Course	Platform
S.Mahalingam	Electric Vehicles: A charging Infrastructure Design (EC-2024)	Annant gyan Knowledge and skills private limited
Dr.M.Selvakumar	Surface Engineering Of Nanomaterials	NPTEL
Dr.K.Sakthivaivel	Principles Of Casting Technology	NPTEL
Mr.R.B.Rajesh Kumar	Introduction to IOT	NPTEL
Mr.M.Ponmurugan	Properties of Materials	NPTEL



**Students Completed Online Courses**

<b>Name of The Student</b>	<b>Title of ONLINE Course</b>	<b>Platform</b>
Akilan A	Fundamentals of Fluid Power	Coursera
Harish M	Fundamentals of Fluid Power	Coursera
Kamalesh B	Fundamentals of Fluid Power	Coursera
Muthu subramanian P L	Fundamentals of Fluid Power	Coursera
Nithya roopini S	Fundamentals of Fluid Power	Coursera
Praveen J	Fundamentals of Fluid Power	Coursera
Ramvignesh P	Fundamentals of Fluid Power	Coursera
Rottik P	Fundamentals of Fluid Power	Coursera
Aravindh S	Fundamentals of Fluid Power	Coursera
Logesh N	Fundamentals of Fluid Power	Coursera
Sanjeev G	Fundamentals of Fluid Power	Coursera
Sivakrishnan M	Fundamentals of Fluid Power	Coursera
Vigneshwaran	Fundamentals of Fluid Power	Coursera
Arul P	Fundamentals of Fluid Power	Coursera
Bharath Kumar B	Fundamentals of Fluid Power	Coursera
Devarajan	Fundamentals of Fluid Power	Coursera
Gokul G R	Fundamentals of Fluid Power	Coursera
Harish Kumar G	Fundamentals of Fluid Power	Coursera
Madankumar G	Fundamentals of Fluid Power	Coursera

Naveen K	Fundamentals of Fluid Power	Coursera
Promoth Kanth R	Fundamentals of Fluid Power	Coursera
Ravikrishna S	Fundamentals of Fluid Power	Coursera
Sriram S	Fundamentals of Fluid Power	Coursera
Kishore Antony	Fundamentals of Fluid Power	Coursera
Rahul S	Fundamentals of Fluid Power	Coursera
Yuvaraj S	Fundamentals of Fluid Power	Coursera
Akilan A	Introduction to IOT	NPTEL
Nithya Roopini S	Introduction to IOT	NPTEL
Sriharini P	Introduction to IOT	NPTEL
Subhashini R	Computer Integrated Manufacturing	NPTEL
Pramoth Kanth R	Computer Integrated Manufacturing	NPTEL

## Students Participation in Co- Extra Curricular Activity

Name of the students	Event Name	Title	Venue
Alagarraja.P.K	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Anguraja. A	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Dinesh R	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Ilakkiya Maran G M	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Mathavaraj D	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Mohaneshwar K	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Satya Prakash	Workshop	Battery Thermal Management	Mahendra University, Hyderabad
Sriharini P	Symposium	Paper Presentation	KIT
Subhashini R	Symposium	Paper Presentation	KIT
Nithya roopini S	Symposium	Paper Presentation	KIT
Akilan A	Symposium	Paper Presentation	KIT
Sachin M A	Symposium	Paper Presentation	KIT
Shafeek ahamed K	Symposium	Paper Presentation	KIT
Gokul G R	Symposium	Paper Presentation	KIT
Gopinath P	Symposium	Paper Presentation	KIT
Pramoth kanth R	Symposium	Paper Presentation	KIT
Devarajan A	Symposium	Paper Presentation	KIT
Sriharini P	Symposium	Just Imagine	KIT
Subhashini R	Symposium	Just Imagine	KIT

Nithya roopini S	Symposium	Just Imagine	KIT
Akilan A	Symposium	Just Imagine	KIT
Sachin M A	Symposium	Just Imagine	KIT
Shafeek ahamed K	Symposium	Just Imagine	KIT
Gokul G R	Symposium	Just Imagine	KIT
Gopinath P	Symposium	Just Imagine	KIT
Pramoth kanth R	Symposium	Just Imagine	KIT
Devarajan A	Symposium	Just Imagine	KIT
Siva Krishnan M	Symposium	CAD Modeling	KIT
Madhankumar G	Symposium	CAD Modeling	KIT
Manoj B	Symposium	CAD Modeling	KIT
Logesh N	Symposium	CAD Modeling	KIT
Kamalesh B	Symposium	CAD Modeling	KIT
Ramvignesh P	Symposium	CAD Modeling	KIT
Rottik P	Symposium	CAD Modeling	KIT
Vigneshwaran M	Symposium	CAD Modeling	KIT
Aravinth S	Symposium	CAD Modeling	KIT
Harish M	Symposium	CAD Modeling	KIT
Sivaprakash D	Symposium	CAD Modeling	KIT
Gowtham A R	Symposium	CAD Modeling	KIT
Anandha Kumar U	Symposium	CAD Modeling	KIT
Mathavaraj D	Symposium	CAD Modeling	KIT
Alagar Raja P K	Symposium	CAD Modeling	KIT
Sivaprakash D	Symposium	Technical Quiz	KIT

Devarajan A	Skill Development Course	Electric Vehicle : A Charging Infrastrucutre Design EV-2024	Annant gyan knowleadge and skills private limited
Gokul GR	Skill Development Course	Electric Vehicle : A Charging Infrastrucutre Design EV-2024	Annant gyan knowleadge and skills private limited
Gopinath P	Skill Development Course	Electric Vehicle : A Charging Infrastrucutre Design EV-2024	Annant gyan knowleadge and skills private limited
Akilan A	Skill Development Course	Electric Vehicle : A Charging Infrastrucutre Design EV-2024	Annant gyan knowleadge and skills private limited
Nithya Roopini S	Skill Development Course	Electric Vehicle : A Charging Infrastrucutre Design EV-2024	Annant gyan knowleadge and skills private limited
Subhashini. R	Skill Development Course	Electric Vehicle : A Charging Infrastrucutre Design EV-2024	Annant gyan knowleadge and skills private limited
Logesh N	Workshop	ECU Diahnosis and Programming	MIT, Chennai
Madankumar	Workshop	ECU Diahnosis and Programming	MIT, Chennai
Manoj B	Workshop	ECU Diahnosis and Programming	MIT, Chennai
Sivakrishana	Workshop	ECU Diahnosis and Programming	MIT, Chennai
Logesh N	Workshop	EV-Mahindra	MIT, Chennai
Madankumar	Workshop	EV-Mahindra	MIT, Chennai
Manoj B	Workshop	EV-Mahindra	MIT, Chennai
Sivakrishana	Workshop	EV-Mahindra	MIT, Chennai
Kamalesh B	Trailblazers innovatio Hub	Self Balancing Robot	HICET, Coimbatore
Ramvignesh P	Trailblazers	Self Balancing Robot	HICET, Coimbatore



	innovatio Hub		
Aravinth S	Trailblazers innovatio Hub	Self Balancing Robot	Hicet, Coimbatore
Harish M	Trailblazers innovatio Hub	Self Balancing Robot	Hicet, Coimbatore
Sivashankar	Trailblazers innovatio Hub	Self Balancing Robot	Hicet, Coimbatore
Ragul S	Trailblazers innovatio Hub	Self Balancing Robot	Hicet, Coimbatore
Subhashini R	Seminar	Electric vehicle technology 2025: Research and career Development	DIGISKILLS CENTER A.C.T. Academy
Devarajan A	Seminar	Electric vehicle technology 2025: Research and career Development	DIGISKILLS CENTER A.C.T. Academy
Akilan A	Seminar	Electric vehicle technology 2025: Research and career Development	DIGISKILLS CENTER A.C.T. Academy
Praveen J	Seminar	Electric vehicle technology 2025: Research and career Development	DIGISKILLS CENTER A.C.T. Academy
Thanikaivelan A	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Anton Andrick F	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Delbin V D	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur

Gokul R	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Gowthamraj P	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Harish S	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Joel Bevin	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Pranavan B	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Rahul G	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Sam Ben Lazarus B	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Sarvesh B	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Prabhu Vignesh	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Pughalarasan Y A	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Mathesh S	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur
Allwin M	SAEINDIA	Physical Round of ebaja - BAJA SAEINDIA 2024	B V Raju Institute of Technology, Narsapur



Mr.N.Dhamodharan Attended Industrial Training at 3D Engineering at Pune



Dr.M.Selvakumar and Team Industry Collaboration with CIRCOR Flow Tech





# DEPARTMENT OF AUTOMOBILE ENGINEERING



## Parents Meeting - 23.03.2024





# DEPARTMENT OF AUTOMOBILE ENGINEERING



## Alumni Interaction - Mr. M. Dinesh Kumar





# DEPARTMENT OF AUTOMOBILE ENGINEERING



## DAY1 - BATTERY PACK DESIGN & CHALLENGES FOR TWO WHEELER EV

Two Days Workshop on Battery Pack Design and Challenges for Two Wheeler EV





PAC Member Visit at Automobile Laboratories

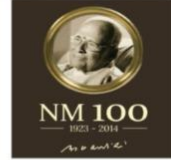


SAE E BAJA Event participation



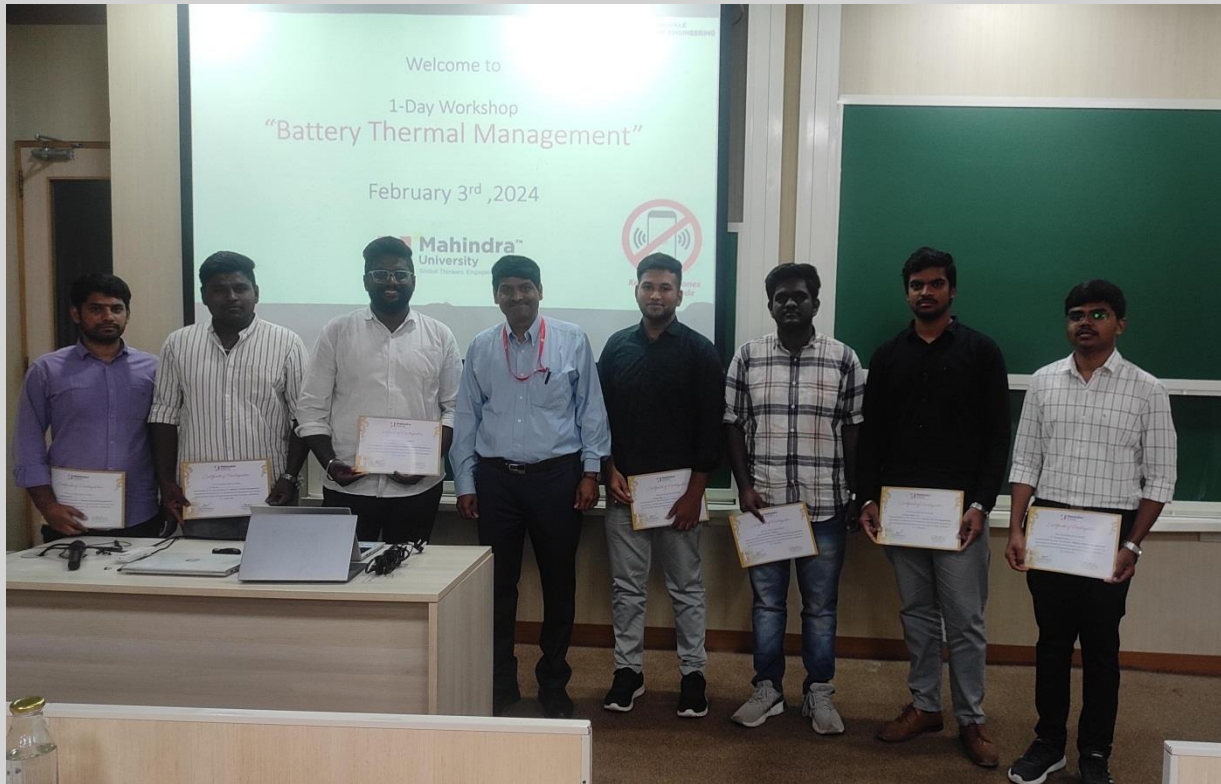


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Estd. 1998 | AICTE Approved | Affiliated to Anna University  
**An Autonomous Institution Since 2011**



**MCET-BOSCH JOINT CERTIFICATION CENTRE**  
**EXTRA CREDIT COURSE**  
**AUTOMOTIVE FUEL INJECTION PUMPS**





III Year Students Participation at Mahindra University on Battery Thermal Management



II Year Students Achievement in Symposium Events At Kalaigarkarunanidhi Institute of Technology





Industrial Visit at Hirotech, Coimbatore



MOU Collaborative Activity with Renault Triber





Incentive award ceremony for Teaching and Non-Teaching Faculty members



Industrial Visit at Roots, Coimbatore

**Events Organized by the Department**

<b>Name of the Event</b>	<b>Type of Event</b>	<b>Date of the Event</b>
Battery Pack Design and Challenges for Two Wheeler EV	Workshop	30-01-2024 & 31-01-2024
Strategies for sustainable growth in the startup journey	Alumni Interaction	26-02-2024
Industrial Visit at Hirotech	Industrial Visit	12-02-2024
Industrial Visit at Hirotech	Industrial Visit	13-02-2024
Past, Present and Future EV	Webinar	11-03-2024
Explore and experience on Renault triber	Training	04-03-2024 & 05-03-2024
Road to Fuel Cell Vehicles in India	Alumni Interaction	09-03-2024
Industrial Visit at Roots	Industrial Visit	17-04-2024
Alumni Meeting	Alumni Meeting	20-04-2024



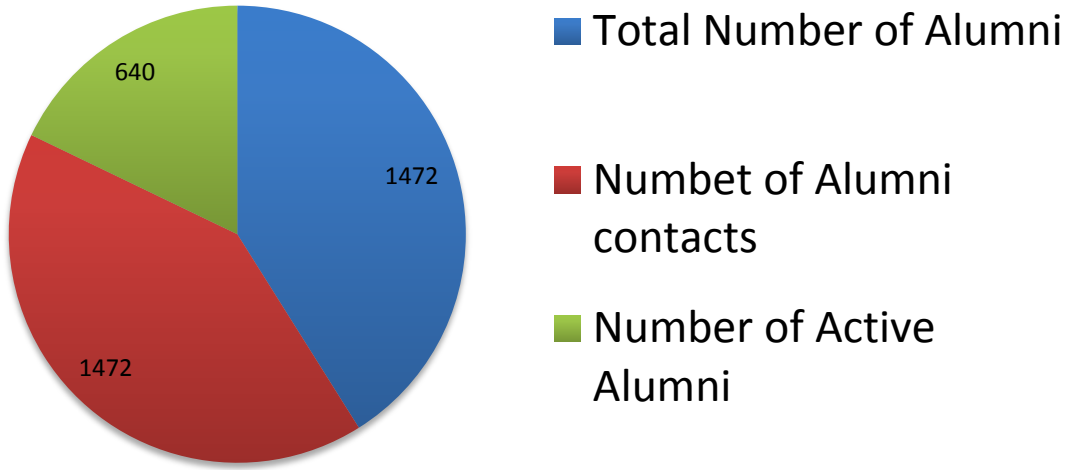


Mr.R.Vishnurameshkumar and Mr.M.Mahedran attended Faculty Immersion Training at Ashook Leyland, Chennai



Automobile Alumni Meeting on 20-04-2024

### Alumni Relationship



SAE E-BAJA Vehicle of 2024

**Editorial Board :**

**Editor** : Dr.D.Shanmugam  
Professor & Head of the Department

**Editor** : Mr.N.Dhamodharan  
Assistant Professor

**Student Coordinator:** G Sivakumaran( 21BAU304)  
S Dhanush Narayanan (727621BAU009)  
A Akilan (727622BAU019)

