

Dr. MAHALINGAM

COLLEGE OF ENGINEERING AND TECHNOLOGY

Udumalai Road, Pollachi, Coimbatore District 642003

Estd. 1998 | AICTE Approved | Affiliated to Anna University

An Autonomous Institution



NAAC A++ GRADE
Cycle 3 (2023-2030)
The Highest Grade

Volume-1

NEWS LETTER

MECHANICA

2024-2025



MECHANICA
ASSOCIATION OF MECHANICAL

EDITORIAL BOARD

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ADVISORY COMMITTEE

Dr.Rama Thirumurugan

Head of the Department

Dr.D.Nathan

Program Coordinator

FACULTY COORDINATORS

Mr.Vijayakkannan, AP(SS)/Mech,MCET

Mr.Sreejith S Nair,AP(SS)/Mech,MCET

EDITORS

Prabin.P (22BME018)

Thiruvarangan.M (23BME020)

Department of Mechanical Engineering

VISION AND MISSION OF THE DEPARTMENT

Vision

To transform students from rural background into professional leaders of tomorrow in the field of Mechanical Engineering with a strong sense of social commitment.

Mission

- To impart quality – engineering education leading to specialization in the emerging areas of CAD/CAM/CAE, Energy Engineering and Materials Technology.
- To provide continually updated and intellectually stimulating environment to pursue research and consultancy activities.

Programme Educational Objectives (PEOs)

The graduates will:

PEO1. Technical Expertise: Actively apply technical and professional skills in engineering practices towards the progress of the organization or the entrepreneurial venture in a competitive and dynamic environment.

PEO2. Lifelong Learning: Own their professional and personal development by continuous learning and apply the learning at work 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.

Program Outcomes (POs)

PO1. Apply knowledge of basic sciences and engineering concepts to solve complex mechanical engineering problems.

PO2. Identify, formulate, and analyze engineering problems using scientific principles and concepts.

PO3. Design products, manufacturing processes and facilities that deliver the requirements of the target customers and desired quality functions.

PO4. Conduct experiments, analyze and interpret data to provide solutions for engineering problems.

PO5. Use appropriate tools and techniques to solve engineering problem

PO6. Apply contextual knowledge to make informed decisions in societal, health, safety, legal, entrepreneurial and cultural issues

PO7. Demonstrate the knowledge of need for sustainable development in providing engineering solutions in global, environmental and societal contexts

PO8. Practice Ethical responsibility.

PO9. Work effectively in teams and build/manage interpersonal relationships.

PO10. Communicate effectively through oral, non-verbal and written means.

PO11. Apply management principles to manage individual and team work for executing projects in a multidisciplinary environment.

PO12. Articulate and engage in pursuit of career and life goals through continuous Learning.

Program Specific Outcomes (PSOs) - Regulations 2019

PSO 1: Demonstrate functional competencies for roles in design, manufacturing and service by learning through centers of excellence and industrial exposure.

PSO 2: Demonstrate behavioral competencies required for roles in design, manufacturing and service by learning through structured professional skills training.

08 AUG 24

Inauguration

On August 8, 2023, Mechanica. The department association of mechanical engineering called Mechnite was inaugurated.

Dr. Karthick Shankar, an alumnus, inaugurated the association and gave a technical presentation on Safety and stability, Efficient use of materials, Problem solving, innovation, code compliances, longevity and durability, risk management, support for architects. Overall quality and sustainability of built environment.



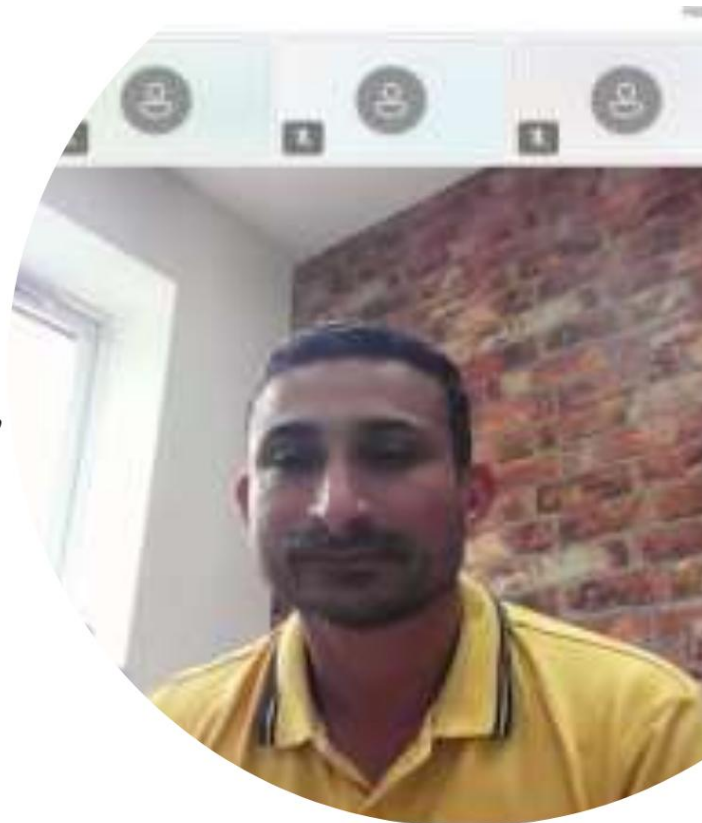
NEWS LETTER

MECHANICA

Expert Talk through Online

14 AUG 24

**MR. GEORGE CHERUVATHOOR,
A SEASONED PROFESSIONAL
IN THE OIL AND GAS SECTOR,
DISCUSSED IMPORTANT
FACETS OF THE BUSINESS,
SUCH AS PROSPECTS,
PROBLEMS, AND CURRENT
TRENDS.**



Project Execution Strategies

- FEED- Front-End Engineering Design**, is an engineering design approach used to control project expenses and thoroughly plan a project before a fix bid quote is submitted. It may also be referred to as Pre-project planning (PPP), front-end loading (FEL), feasibility analysis, or early project planning.
- EPC(Q) / Lump Sum Turn Key (LSTK)- EPC stands for Engineering, Procurement, and Construction**, and is a project delivery method where the contractor is responsible for the entire project from design to construction and may include Commissioning phase also.
- EPCM- Engineering, Procurement, Construction Management**, and is a project delivery method where the contractor provides engineering, procurement, and construction management services, but does not perform the actual construction work.
- PMC- This stands for Project Management Consultancy** and is a project delivery method where the contractor provides project management services to clients but does not perform the engineering or construction work.

NEWS LETTER

MECHANICA

28 AUG 24

Outreach Program



Mr Nachimuthu S

Assistant Professor
Department of Mechanical Engineering



Dr Balamurali N

Assistant Professor
Department of Mechanical Engineering



Dr Guruprakesh S V

Assistant Professor
Department of Mechanical Engineering



Dr Nathan D

Associate Professor
Department of Mechanical Engineering

THE INTERACTIVE SESSION ON THE " INNOVATION AND ENTREPRENEURSHIP " WAS HELD ON 28.08.2024 AT GOVERNMENT GIRLS HIGHER SECONDARY SCHOOL, KOTTUR ROAD, POLLACHI.



THE SESSION AIMED TO PROVIDE STUDENTS AND FACULTY WITH INSIGHTS INTO THE CRITICAL ROLE OF ENTREPRENEURSHIP AND INNOVATION IN VARIOUS FIELDS SUCH AS AUTOMATION TECHNOLOGY, DRONE TECHNOLOGY, LIGHTWEIGHT MATERIAL AND ITS SIGNIFICANCE IN ENSURING THE RELIABILITY AND PERFORMANCE OF ENGINEERING PRODUCTS.

NEWS LETTER

MECHANICA

20 SEP 24



*expert talk on Innovation in Unexplored
Domains in Mechanical Engineering*

MECHANICAL ENGINEERING PROFESSIONALS, STUDENTS, AND ENTHUSIASTS TO DISCUSS CUTTING-EDGE INNOVATIONS IN LESSER-KNOWN AREAS OF MECHANICAL ENGINEERING. THE SPEAKER DR.S.SENTHILVELAN ,SHED LIGHT ON EMERGING TECHNOLOGIES, NOVEL MATERIALS, AND UNEXPLORED APPLICATIONS, OFFERING FRESH PERSPECTIVES ON HOW INNOVATION CAN REDEFINE THE FUTURE OF THE DISCIPLINE.

Expert talk

The expert talk on “3T's of Growth Talent, Technology, Transformation” was held on 20.09. 2024, featuring Mr.D.Raja Vineeth, an Ex senior Process Engineer at Bosch Automotive electronic India Pvt Ltd, Bengaluru. The session attracted professionals and students alike,eager to understand the interplay of talent,technology, and transformation in driving modern business growth.Speaker shared practical insights on how these three pillars are essential for organizational success and personal development in a rapidly evolving world.



"Alumni never fade from our recollections because they leave indelible imprints on our minds."

20 SEP 24

NEWS LETTER
MECHANICA

Expect talk about MEMS Revolution

10 OCT 2024

Event summary:

The event began with an inspiring prayer song, followed by a warm welcome address by the student coordinators. The Presidential Address was delivered by Dr. Rama Thirumurugan, Head of the Department of Mechanical Engineering, setting the stage for an enriching session.



Introduction:

The guest lecture on “MEMS Revolution: Transforming Industries through Miniaturisation and Precision” was organized by the Departments of Mechanical, Automobile, and Electrical and Electronics Engineering in association with the ISTE Student Chapter. This session aimed to enlighten students and faculty about the transformative potential of Micro-Electro-Mechanical Systems (MEMS) in various industrial applications.



Emerging Trends in Military Aviation

28 JAN 24



EVENT SUMMARY:

THE EVENT COMMENCED WITH A PRAYER SONG, FOLLOWED BY A WARM WELCOME ADDRESS BY THE STUDENT COORDINATORS.

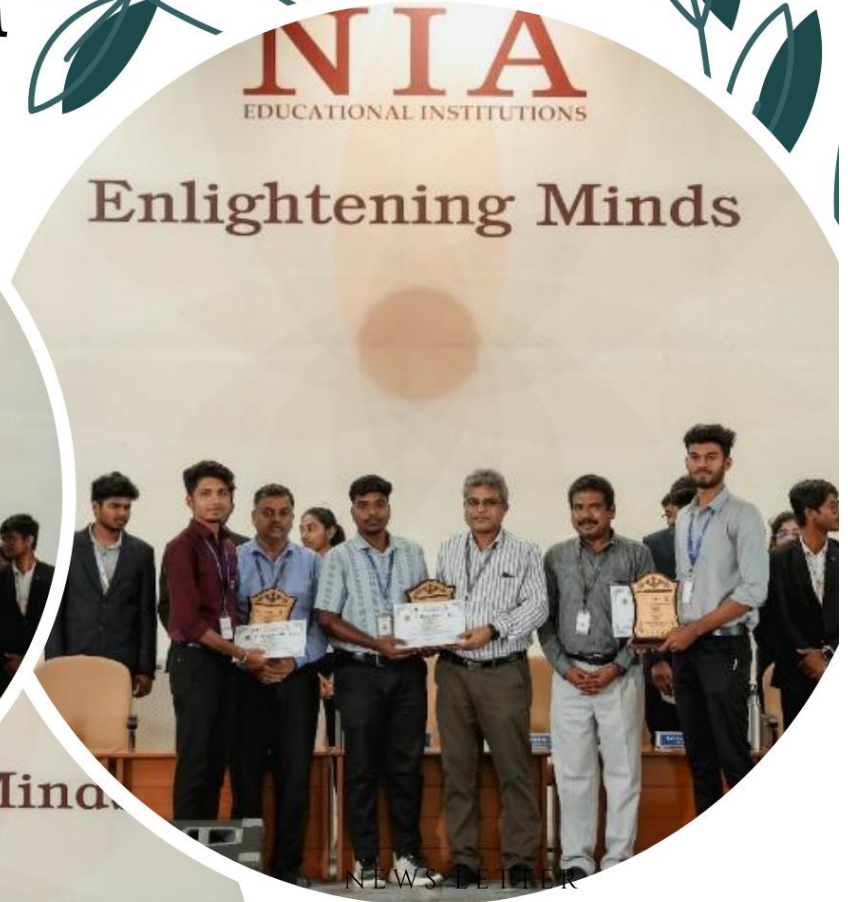
DR. RAMA THIRUMURUGAN, HEAD OF THE DEPARTMENT OF MECHANICAL ENGINEERING, DELIVERED THE PRESIDENTIAL ADDRESS, SETTING THE TONE FOR THE SESSION.

INTRODUCTION:

THE GUEST LECTURE ON "EMERGING TRENDS IN MILITARY AVIATION" WAS ORGANIZED BY THE DEPARTMENTS OF MECHANICAL AND AUTOMOBILE ENGINEERING IN COLLABORATION WITH MECHANICA, SCUDERIA AVES, AND THE INSTITUTION'S INNOVATION COUNCIL. THE SESSION AIMED TO PROVIDE STUDENTS AND FACULTY INSIGHTS INTO ADVANCEMENTS IN MILITARY AVIATION AND ITS IMPLICATIONS FOR ENGINEERING DESIGN AND INNOVATION.



MECHANICAL MAYHEM



Congratulations

PRABIN P
AJAY KUMAR P
GIFTSON SUSHIL KUMAR R
ABDUL WAHID A
VIGNESH RAJAN G
SANTHOSH S
MANICKA PRABU S R



SYMPOSIUM



WORKSHOP



PROJECT CONTEST



Congratulations

SYMPOSIUM:
BARATH S
VISHWA J

WORKSHOP:
HARSHITH K
LOHIT M
SHARVESHWARAN R S

PROJECT CONTEST:
AJEET K S

GRANTED UTILITY PATENT

S.No	Application No.	Name of the Inventors	Designation & Dept	Title of the Patent	Month & Year of Granted
2024 - 2025					
1	201841040121	Dr. Rama Thirumurugan	Prof.& HoD /Mech	Induction Water Heater	Jun-24
		Dr. R. Gnanaguru	ASP-Mech		
		Mr. S. Gnanakumar	AP/Mech		
		Mr. T. Vigneshkumar	AP/Mech		
2	201841040122	Dr.I.Rajendran	Prof.& HoD /Mech	Fail-safe mechanical latching system for three-way tippers	Aug-24
		Dr. Rama Thirumurugan	Prof.&Mech		
		Mr. N. Santhosh	AP/Mech		
		Mr. K. Prabu	AP/Mech		
		Mr. C. Selvasenthil Prabhu	AP/Mech		

GRANTED DESIGN PATENT

S.No	Application No.	Name of the Inventors	Designation & Dept	Title of the Patent	Month & Year of Granted
2024 - 2025					
1	434986-001	Mr.J.Dinesh Kumar	AP - MECH	A Novel Split Casing high performance Pump	27/12/2024
2	429908-001	Mr. S.Nachimuthu	AP -MECH	Integrated tea maker and Bread toaster device	13/12/2024
		Dr. Balamurali	AP -MECH		
		Dr. S.V. Gurupranes	AP -MECH		
		Mr. J. Nagarajan	AP - EEE		
		Mr. M. Lohit	Student of Mech		
		Mr. R.S. Sharveshwaran	Student of Mech		
3	422509-001	Dr. M.Jayaraj	AP(SG) - MECH	Double Vacuum Blower for Cleaning Coir Pit Blocks	Dec-24
		D r.N.Shanmuga Sundaram	AP(SG) - MECH		
		Mr.K.Vijayakkannan	AP(SS) - MECH		
4	423775-001	Mr. Sreejith S Nair	AP(SS) - MECH	Compact heat exchanger with Enhanced thermal efficiency	Aug-24
5	413565-001	Mr K Sasikumar	AP - MECH	Versatile Combination Spanner	Jun-24

REGISTERED COPYRIGHT PATENT

S.No	Application No.	Name of the Inventors	Designation & Dept	Title of the Patent	Month & Year of Registered
1	1222072	Mr.J.Dinesh Kumar	AP - MECH	Mechanism for segmented valve and fuel injection for IC engines	Sep-24

An Autonomous Institution Since 2011

(A DIVISION OF NIA EDUCATIONAL INSTITUTIONS)

Congratulations!

Faculty Achievements in

8 Weeks

AUG - OCT - 2024



Dr. Nathan D
ASP - MECH

Google Cloud
Computing Foundations

Grade: Elite



Mr. Gunasekaran R
AP - MECH

Advanced Machining
Processes

Grade: Elite



Mr. Dinesh Kumar J
AP - MECH

Advanced Machining
Processes

Grade: Successfully Completed



Mr. Sasikumar K
AP - MECH

Tissue Engineering

Grade: Elite



Dr. Ayyappan S
ASP - MECH

Steam Power
Engineering

Grade: Elite

Department of Mechanical Engineering

AY : 2024-2025 (ODD)

Congratulations

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Congratulations!

Faculty Achievements in

12 Weeks

JUL - OCT - 2024



Dr. Gurupranes S V
AP - MECH

Rapid Manufacturing

Grade: Elite + Silver
Topper: 5%



Mr. Nachimuthu S
AP - MECH

Rapid Manufacturing

Grade: Elite + Silver



Dr. Madhusudhanan S
AP (SG) - MECH

Rapid Manufacturing

Grade: Elite



Mr. Sreejith S Nair
AP (SS) - MECH

Advanced Materials
and Processes

Grade: Elite



Mr. Venkatesh J
AP - MECH

Solar Energy
Engineering and
Technology

Grade: Elite

Department of Mechanical Engineering

AY : 2024-2025 (ODD)

Department of Mechanical Engineering

Cordially invites you for the
Knowledge Sharing Session on
"Introduction to Deep Learning"




Dr. Nathan D

Associate Professor
Mechanical Engineering
Dr. Mahalingam College of
Engineering and Technology




Dr. Uma Maheswari K

Assistant Professor (SG)
Mechanical Engineering
Dr. Mahalingam College of
Engineering and Technology

Date: 31.08.2024 Time : 9.30 A.M. to 4.30 P.M. Venue: (C-216)

Department of Mechanical Engineering

Cordially invites you for the
Knowledge Sharing Session on
**"Application of NumPy, Pandas and Matplotlib in
Datascience and Artificial Intelligence"**




Mr. Sreejith S Nair

Assistant Professor (SS)
Mechanical Engineering
Dr. Mahalingam College of Engineering and Technology




Date: 10.08.2024 Time : 2.00 P.M. to 4.30 P.M. Venue: Mechanical CAD/CAM Lab

Congratulations



Dr. MAHALINGAM
MCET
COLLEGE OF ENGINEERING AND TECHNOLOGY
Enlightening Technical Minds

Department of Mechanical Engineering is organising a

TWO DAYS WORKSHOP

ON

MESHING TECHNIQUES USING HYPER MESH

11th & 12th October 2024

HyperMesh is a software tool developed by Altair Engineering that's used in the field of finite element analysis (FEA) and computational fluid dynamics (CFD). It's primarily used for pre-processing tasks in the simulation process. HyperMesh allows engineers and analysts to create, edit, and manipulate complex 3D models, generate meshes, set up boundary conditions, and prepare the model for analysis. It's commonly used in industries like automotive, aerospace, and manufacturing for structural and fluid simulations.

Topics to be covered:

- > Overview of finite element analysis
- > Introduction to Hypermesh
- > Geometry clean-up
- > 2D meshing using Hypermesh
- > 3D meshing using Hypermesh
- > Quality check
- > Structural analysis using Optistruct solver

Registration fees :
UG/PG students : Rs 500 (Including GST)
Faculty members/ Researchers / Industrial Participants: Rs.750 (Including GST)
Excluding Food and Accommodation

For any clarification :
Faculty coordinators :
Mr.K.Vijayakkannan, Assistant Professor (SS) – Mechanical Engineering
+91 7904803938 | vijayk@mcet.ac.in
Dr.S.Madhusudhanan, Assistant Professor (SG) – Mechanical Engineering
+91 8056341491 | madhued@mcet.ac.in

Student coordinator :
Mr.Vetrivel A ,Final year – Mechanical Department
+91 7639 464 929 | 727622bme350@mcet.in

How to apply :
A maximum of 30 participants are permitted on first come first serve basis. The selected candidates are intimated through Email.

Important dates :
Last date for registration : 25.09.2024
Date of intimation of confirmed participants : 29.09.2024

Resource persons :
Experienced faculty from Academia.

Convener:
Dr.Rama Thirumurugan
HOD- Mechanical Engineering
Dr.Mahalingam College of Engineering and Technology, Makkinakickenpatti (POST),
Udumalai Road, Pollachi-642003.

Registration



Department of Mechanical Engineering

Congratulations!
Students Achievement in



Dr. Guruprakesh V
AP - MECH
Mentor
(18 -Students)



Course Name:

Rapid Manufacturing _noc24-me115



PRABIN P
727622BME018
Grade: Elite



SRIDHAR RAJ S
727622BME022
Grade: Elite



MANJARIKAN
727622BME024
Grade: Elite



SWETHA K
727622BME033
Grade: Elite+Silver



KISHORE S
727622BME014
Grade: Elite



VIGNESH M
727622BME038
Grade: Elite



GUNANIDHI P C
727622BME042
Grade: Elite



SIVAHARIRAJA S
727622BME056
Grade: Elite



AJAYKUMAR P
727622BME058
Grade: Elite+Silver

12 Weeks

AY : 2024-2025 (ODD) "Discover the Joy of Learning" JUL - OCT -2024

Department of Mechanical Engineering

Congratulations!
Students Achievement in



Dr. Guruprakesh V
AP - MECH
Mentor
(18 -Students)



Course Name:

Rapid Manufacturing _noc24-me115



SANTHOSH P
727622BME066
Grade: Elite



GIFTSON SUSHIL KUMAR R
727622BME078
Grade: Elite



MEIYARASU S
727622BME080
Grade: Elite



ASWIN KUMAR S
727622BME082
Grade: Elite+Silver



KAVINKUMAR P
727622BME064
Grade: Elite



ABDUL SALAM S
727622BME091
Grade: Elite



HAEMANTH MS
727623BME320
Grade: Elite



MANIMADHAN KUMAR A
727623BME345
Grade: Elite



IBRAHIM DHANISH J
727623BME011
Grade: Elite+Silver

12 Weeks

AY : 2024-2025 (ODD) "Discover the Joy of Learning" JUL - OCT -2024

Congratulations

Department of Mechanical Engineering

Congratulations!
Students Achievement in



Mr. Nachimuthu S
AP - MECH
Mentor
(7 -Students)



Course Name:

Rapid Manufacturing _noc24-me115



ABDUL KALAM M
727622BME003
Grade: Successfully Completed



ARUN KARTHIK T
727622BME011
Grade: Elite



VINODHAN M
727622BME031
Grade: Elite



SATHISH KUMAR A
727622BME045
Grade: Elite



SRISUKANTH B
727623BME317
Grade: Successfully Completed



LOHIT M
727623BME337
Grade: Elite+Silver (Topper 2%)



BHARATHKUMAR N
727623BME341
Grade: Successfully Completed

12 Weeks

AY : 2024-2025 (ODD) "Discover the Joy of Learning" JUL - OCT -2024

Department of Mechanical Engineering

Congratulations!
Students Achievement in



SANDEEP V S
727622BME067
Grade: Elite + Silver (Topper 5%)



SATHESH KUMAR J
727622BME075
Grade: Elite + Silver (Topper 5%)



LOHIT M
727623BME337
Grade: Elite+Silver (Topper 2%)

NPTEL Honors Students

Course Name:

Rapid Manufacturing _noc24-me115

12 Weeks

AY : 2024-2025 (ODD) "Discover the Joy of Learning" JUL - OCT -2024

Department of Mechanical Engineering



Congrats!

Event Name: MECHANICAL MAYHEM

TEAM Name : Gambling Boys



College Name

Dr. Mahalingam College of
Engineering and Technology

Prabin P, III Year, Mechanical

727622BME018

Ajay Kumar P, III Year, Mechanical

727622BME058

Giftson Sushil Kumar R, III Year, Mechanical

727622BME078

Organised by

Student Research Council
(SRC)

Held on

August 19 - 20, 2024

IE - 2

AY - 2024 -2025 (ODD)

Department of Mechanical Engineering



Congrats!

Event Name: MECHANICAL MAYHEM

TEAM Name : Team Wakandas



College Name

Dr. Mahalingam College of
Engineering and Technology

Abdul Wahid A, III Year, Mechanical

727622BME048

Vignesh Rajan G, III Year, Mechanical

727622BME079

Santhosh S, III Year, Mechanical

727623BME314

Organised by

Student Research Council
(SRC)

Held on

August 19 - 20, 2024

IE - 2

AY - 2024 -2025 (ODD)

Congratulations

Department of Mechanical Engineering



Congrats!

Event Name: MECHANICAL MAYHEM

TEAM Name : Craftman



College Name

Dr. Mahalingam College of
Engineering and Technology

Manicka Prabu S R, IV Year, Mechanical

727621BME010

Organised by

Student Research Council
(SRC)

Held on

August 19 - 20, 2024

IE - 2

AY - 2024 -2025 (ODD)

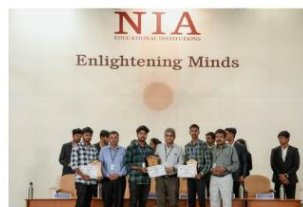
Department of Mechanical Engineering



Congrats!

Event Name: DESIGN-CON

TEAM Name : Team Bavitharan



College Name

Dr. Mahalingam College of
Engineering and Technology

Kavin E, III Year, Mechanical

727622BME020

Karthik Kumar S, III Year, Mechanical

727623BME306

Bavithran K, III Year, Mechanical

727623BME318

Organised by

Student Research Council
(SRC)

Held on

August 19 - 20, 2024

IE - 1

AY - 2024 -2025 (ODD)

Department of Mechanical Engineering



Congrats!



Handball Tournament

Anna University - Zone 10
Men - 2024 -2025

Organized by

Karpagam College of Engineering
held on 18.10.2024 to 19.10.2024

727622BME066 - SANTHOSH P - 3rd Year

727622BME085 - SANJAY MAREES M -- 3rd Year

727623BME310 - NAVEEN R S - 3rd Year

727623BME317 - SRISUKANTH B - 3rd Year

727623BME041 - SRI VIGNESHWARAN K S -2nd Year



EE - 1

AY - 2024 -2025 (ODD)

Congratulations

Department of Mechanical Engineering

Congratulations!

Faculty Achievement in



Dr. Ayyappan S
ASP_Mech

Course Name:
Community
Engagement and Social
Responsibility



12 Weeks

Total Mark Obtained : 96/100

"Discover the Joy of Learning"

AY : 2024-2025 (ODD)

JUL - OCT -2024

BOOKS

Publications

RECENT INTELLIGENT
TECHNOLOGIES IN SCIENCE,
ENGINEERING, HUMANITIES &
MANAGEMENT

(IC-RITSEHM-2024)

(Book Chapter)

Editor

Dr. Sourabh Jain



RFI *Publication*
International Book Publication

CONTEMPORARY RESEARCH,
INNOVATIONS AND TRENDS IN
ENGINEERING, APPLIED SCIENCES,
MANAGEMENT & HUMANITIES

(IC-CRIT-2023)

(Book Chapter)

Editor

Dr. Sourabh Jain