AAA COLLEGE OF ENGINEERING & TECHNOLOGY

Accredited by NAAC with "A" Grade, Accredited by NBA (CIVIL, CSE, ECE, EEE, MECH) (An ISO 21001: 2018 Certified Institution) (Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai) Amathur, Sivakasi - 626 005.

SOUVENIR FOR MECHANICAL

"Innovating Ideas, Developing Skills, Shaping the Future"





2022-2023

volume 01

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Institutions vision mission

VISION OF AAACET

Emerge as a Premier Institute for Quality Technical Education and Research with social responsibilities.

MISSION OF AAACET

To offer state of the art infrastructure for under graduate, postgraduate and doctoral programs.
To provide holistic learning ambience blended with professional ethics, leadership qualities and social responsibilities.
To disseminate knowledge and undertake research in field of Engineering and technology.
To inculcate innovation and creativity among student community to become successful entrepreneurs.
To undertake collaborative projects with academic, research centres and industries to provide cost–effective solutions.



Department vision mission

VISION OF MECHANICAL

Emerge as an eminent center of excellence in Mechanical Engineering for quality technical education and scientific research leading to social development.

MISSION OF MECHANICAL

To impart quality education to create efficient Mechanical Engineers through eminent faculty.
To provide the state-of-the art infrastructure to facilitate the cutting edge research in emerging field of Mechanical Engineering.
To undertake multidisciplinary and collaborative projects with industries and research organizations.
To serve the society by developing competent engineers and entrepreneurs with outstanding leadership qualities and moral values.







PROGRAMME OUTCOME

PO-1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and Engineering to the solution of complex engineering problems.
PO-2	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.
PO-3	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.
PO-4	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.
PO-5	Modern tool usage – Create, select, and apply appropriate techniques, resources, and modern engineering and computer aided tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO-6	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.
PO-7	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.
PO-8	Ethics– Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO-9	Individual and team work – Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	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
PO-11	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.
PO-12	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.

PROGRAMME OUTCOME

Program Specified Outcome

Program Educational Outcome



PROGRAM EDUCATIONAL OBJECTIVES (PEOS)	
PEO 01	*The graduates will possess in-depth knowledge in the field of Mechanical Engineering and have a successful professional career in industry or by becoming an entrepreneur or by pursuing higher education and research.*
PEO 02	*The graduates will demonstrate profound problem solving skills and improved ability to design, develop economic and environment friendly Mechanical systems for multi-disciplinary societal needs.*
PEO 03	*The graduates will have ethical attitude and leadership quality to work efficiently with diverse teams, adapt to recent technologies by lifelong learning to solve real life problems.*

PROGRAM SPECIFIC OUTCOMES (PSOS) :	
PSO 01	*Ability to apply the basic knowledge to identify, formulate and solve problems in the domains of thermal, machine design, manufacturing and industrial engineering.*
PSO 02	*Ability to provide solutions to complex Mechanical Engineering problems by acquiring technological inputs and managerial skills and utilizing advanced technology with the help of modern CAD/CAM/CAE tools*
PSO 03	*Ability to develop mechanical and allied products with socio-economic concern by applying innovative ideas under ethical and professional constraints leading to a successful career.*



Sustainable Development Goal

SDG No.	SDG Goal
SDG 1	No Poverty
SDG 2	Zero Hunger
SDG 3	Good Health and Well-being
SDG 4	Quality Education
SDG 5	Gender Equality
SDG 6	Clean Water and Sanitation
SDG 7	Affordable and Clean Energy
SDG 8	Decent Work and Economic Growth
SDG 9	Industry, Innovation and Infrastructure
SDG 10	Reduced Inequalities
SDG 11	Sustainable Cities and Communities
SDG 12	Responsible Consumption and Production
SDG 13	Climate Action
SDG 14	Life Below Water
SDG 15	Life on Land
SDG 16	Peace, Justice and Strong Institutions
SDG 17	Partnerships for the Goals



MESSAGE FROM THE PRINCIPAL...

"Innovating Ideas, Developing Skills, Shaping the Future"



It gives me immense pleasure to present the Department of Mechanical Engineering Souvenir for the academic year 2022–2023. The department provided students with valuable opportunities through technical workshops, seminars, competitions, hands-on training and SAE India activities. Programmes in reverse engineering, CAD/CAM, design thinking, mechatronics, embedded systems and HVAC enhanced students' technical knowledge and practical skills. I appreciate the dedicated efforts of the faculty and students and wish the department continued success in nurturing innovative and industry-ready engineers.

Dr. M. Sekar
Principal



MESSAGE FROM THE HOD...



"Innovating Ideas, Developing Skills, Shaping the Future"

It is my pleasure to present the Department of Mechanical Engineering Souvenir for the academic year 2022–2023. The department organized various technical activities, including workshops, seminars, competitions and hands-on training in emerging areas of Mechanical Engineering. The Association of Mechanical Engineers and SAE India Collegiate Club provided students with opportunities to develop their technical and professional skills. I appreciate the enthusiastic participation of our students and the dedicated efforts of our faculty members. I wish everyone continued success in the years ahead.

Dr. R.Selva Bharathi
Professor & Head
Department of Mechanical Engineering



"Innovating Ideas, Developing Skills, Shaping the Future"

DEPARTMENT OF MECHANICAL ENGINEERING

Journey of Growth and Excellence

KEY MILESTONES

	Milestone	Achievement / Development
2013	Department Established	The Department of Mechanical Engineering was established at AAA College of Engineering and Technology.
2014	Academic Foundation	Strengthening of academic activities, laboratories, and practical learning facilities.
2015	Student Development	Enhancement of practical learning and student technical activities.
2016	Technical Exposure	Conduct of workshops, seminars, industrial visits, training programmes, and project activities.
2017	Professional Development	Increased focus on technical competency, industry exposure, and professional skills.
2018	ISHRAE Student Chapter	ISHRAE Student Chapter was established, providing students with professional and technical exposure in HVAC&R.
2019	Research & Innovation	Promotion of research-oriented activities, innovative projects, and emerging technologies.
2020	Digital Learning	Adoption of technology-enabled teaching and learning practices during the COVID-19 pandemic.
2021	Academic Continuity	Continued academic and student-development activities with adaptive learning practices.
2022	University Rank Holders	The department produced University Rank Holders, marking an important milestone in academic excellence.

Building Skills | Inspiring Innovation | Shaping the Future

Department Milestone

Faculty Profile

Sl.No	Name	Specilazation	Designation
1	Dr.P.Seenikannan	Thermal Engineering	Prof/Hoead
2	Dr.M.Sekar	Production Engineering	Prof/Principal
3	Dr.R.Selvabharathi	Engineering Design	Prof
4	Dr.G.Vairamuthu	Thermal Engineering	ASP
5	Dr.R.Meby Selvaraj	CAD / CAM	AP
6	Dr.G.Manikandaraja	CAD / CAM	AP
7	Dr.P.S.R.Senthil Maharaj	CAD / CAM	AP

Faculty Profile

Sl.No	Name	Specilazation	Designation
8	Mr.M.Kaliraj	CAD / CAM	Assistant Professor
9	Mr.P.C.Rajarajan	Manufacturing Engineering	Assistant Professor
10	Mr.S.Balamurugan	CIM	Assistant Professor
11	Mr.A.Vignesh Moorthy pandian	Thermal Engineering	Assistant Professor
12	Mr.M.S.Zakir Hussain	Production Engineering	Assistant Professor
13	Mr.M.Nagendran	CAD	Assistant Professor
14	Mr.M.Karthikeyan	Manufacturing Engineering	Assistant Professor

"Innovating Ideas, Developing Skills, Shaping the Future"

Department Activities

National Level Competition on Reverse Engineering

Department of Mechanical Engineering & The SAE India Southern section was conducting "National Level Competition on Reverse Engineering" for student's online webinar on 07.06.2022 at CAD/CAM Laboratory, Cambridge Block. The Chief Guest Mr.S.Shanmugam, SAE Southern section , Students activities section secretary, delivered importance of this competition and give detail about reverse engineering and scope of reverse engineering in industry, Totally 58 students of SAE members attended this event.





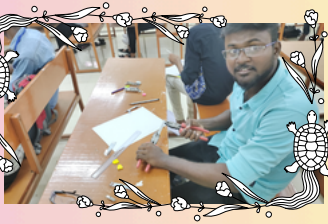
"Innovating Ideas, Developing Skills, Shaping the Future"

Department Activities

Reverse Engineering

Department of Mechanical Engineering & SAE India always-encouraging fresh ideas from ambitious youngsters of the student community. Reverse engineering is the National Level Competition held at MIT Campus, Chennai, it has been scheduled from 01.08.2022 to 06.08.2022 It puts forth a common platform where students irrespective of their branches, seniority and experiences unit be together to display their skills. It is included multitude of events lined up in unique categories of precisely select component, measuring various parameters and develops drawing their skills project. We ensure that you come out reincarnated with an experience of unique talents, which unfold themselves as they engrave your minds more than ever. Students wholeheartedly present their skills in this competition along their innovation.

SAE INDIA SOUTHERN SECTION





Department Actitivies

Design Thinking

Department of Mechanical Engineering had Inaugurated Association of Mechanical engineers & organized a Workshop on "Design Thinking – a Structure Approach to Innovation by the resource person Mr. C. Arun Suddarshan Chief Design Officer, Dot 2 Dot Business Designers, Madurai. on 07-09-2022. From this workshop all the students got the clear idea about the various learning process & scope of startup opportunities in mechanical field. Totally 70 students and faculty participated.



Inaugural function of Association of Mechanical Engineers

Department Actitivites

Hands on training – Mechatronics workshop

Department of Mechanical Engineering & SAE India Collegiate Club of AAACET was conduct one day " Hands on training – Mechatronics workshop" to final year Mechanical Engineering students of AAA college of engineering and Technology on 01.10.2022 in Mechanical Department, the chief Guest of Mr.A.Arunkumar M.E, Assistant Professor/ Mechatronics Department, Kamarajar College of Engineering and Technology, Madurai., giving training on Hydraulic system, Pneumatic system and also give brief introduction about Fluidsim software and 40 students attended this event.





"Innovating Ideas, Developing Skills, Shaping the Future"

Department Activities

MEP-Heating, Ventilation and Air Conditioning

Department of Mechanical Engineering and Association of Mechanical engineers had conducted a three-day National Level Technical Workshop on "MEP-Heating, Ventilation and Air Conditioning" by the resource person Mr.V.Muthu Prakash from Innovative Engineering Solutions, Chennai, from 04.04.2023 to 06.04.2023. From this workshop all the students got the clear idea about the main purposes of a Heating, Ventilation and Air-Conditioning (HVAC) system are to help maintain good indoor air quality (IAQ) through adequate ventilation with filtration and provide thermal comfort.Totally 120 students and Faculty from various engineering and Polytechnic colleges participated in this workshop



Association of Mechanical Engineers
MECHANICAL
SMART TENABLE ACHIEVE
AAA CET

Depaartment Actitivites

Inaugurated the SAEINDIA collegiate club of AAACET

Department of Mechanical Engineering & The SAE India Southern section was inaugurated the SAEINDIA collegiate club of AAACET on April 27, 2023, at Thomas Alva Edison Hall, Cambridge Block. The Chief Guest is Mr. Kasiraja Thangapandian, Senior Manager, Visteon, Chennai. delivered important features and job opportunities available in SAE., Totally 63 students of SAE members attended this event.





STUDENTS' ACHIEVEMENTS

- M. Selvakumar (III Year) completed the Mechanical Design certification at the Associate level, awarded by Dassault Systèmes on 16.10.2022.
- T. Vetrivel Mani (III Year) won First Prize in the Iquid event at the National-Level Symposium GENESIS 23, organized by the Department of Electronics and Communication Engineering, Kamaraj College of Engineering and Technology, on 15.02.2023.
- S. Veerakumar (III Year) won Second Prize in the Iquid event at the National-Level Symposium GENESIS 23, organized by the Department of Electronics and Communication Engineering, Kamaraj College of Engineering and Technology, on 15.02.2023.
- M. Selvakumar (III Year) won First Prize in the CAD Modelling event at the National-Level Technical Symposium organized by Kamaraj College of Engineering and Technology on 27.02.2023.
- M. Muthaiya (II Year) won First Prize in the Water Rocketry event at the National-Level Technical Symposium organized by Kamaraj College of Engineering and Technology on 27.02.2023.
- T. Vetrivel Mani and S. Veerakumar (III Year) won Second Prize in the Paper Presentation event at the National-Level Technical Symposium organized by Kamaraj College of Engineering and Technology on 27.02.2023.
- M. Selvakumar, Manoj Kumar, and Amarnath (III Year) secured the Winner position in the CAD-O-MANIA event at the National-Level Technical Symposium ENXENEIRO-23, organized by Kamaraj College of Engineering and Technology on 27.02.2023.
- Vikram (IV Year) secured the Winner position in the CAD-O-MANIA event at the National-Level Technical Symposium ENXENEIRO-23, organized by Kamaraj College of Engineering and Technology on 27.02.2023

STUDENTS' ACHIEVEMENTS

- Vigneshwaran M (IV Year) was awarded Best Outgoing Student for the 2019–2023 batch.
- Mariselvam (IV Year) received recognition for securing a GPA above 9 in the Anna University Examination 2021–2022.
- Azhagu K, Sarathi Kannan S, and Gopalakrishnan M (III Year) were recognized as Academic Toppers for 2021–2022.
- Mariselvam I, Anantharaman N, and Mathivanan T. A. (IV Year) were recognized as Academic Toppers for 2021–2022.
- S. A. Parthiba Narayan and S. Arunpandian (IV Year) won the Best Paper Award at the International Conference on Recent Innovations in Computer, Communication and Manufacturing (ICRICCM-23), organized by AAA College of Engineering and Technology, Sivakasi, on 12.04.2023 and 13.04.2023.
- Satheshkumar G, Amarnath K, and Mohammad Usman A (III Year) secured First Place in Sheet Metal at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Nataraja CSK, Athish Yuaraj KT, and Hariharan K (III Year) secured First Place in Welding at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Hariharan P, Gopalakrishnan M, and Sarathi Kannan S (III Year) secured First Place in Material Identification at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Nataraja CSK, Kishore Pandiarajan K, and Kaviyarasan V (III Year) secured First Place in Group Discussion at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Dineshraj, Sarathi Kannan S, and Kaviyarasan V (III Year) secured First Place in Python Programming at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.

STUDENTS' ACHIEVEMENTS

- T. Vetrivel Mani, S. Veerakumar, and K. Prabhakaran (III Year) secured First Place in Entrepreneurship at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Satheeshkumar G, Ajith Kumar V, and Sudhakar P (III Year) secured First Place in Engineering Drawing at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Jeyarajasekar K, Ayyanar P, and Balasubrmanian P (III Year) secured First Place in Bridge Building at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Selvakumar M, Satheeskumar P, and Dineshraj (III Year) secured First Place in Auto Quiz at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- T. Vetrivel Mani, K. Kishore Pandiarajan, and S. Veerakumar (III Year) secured First Place in Technical Paper Presentation at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Ajith Kumar V, Prabhakaran M, and Muneeswaran R (III Year) secured First Place in Business Plan Competition at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.
- Anandharaman M, Abimanyu T, and Sanjay N (III Year) secured First Place in Computer-Aided Manufacturing at the SAE India Collegiate Club of AAACET Tier-1 event, held from 04.02.2023 to 10.02.2023.

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Industrial Interaction

The Department of Mechanical Engineering, organized one-day Industrial visit to The Ramco Cements Limited, RR Nagar on 09.09.2022 for III-year Mechanical Engineering students. During the industrial visit students are learned how the machines are controlled through control system, mechanical process involved in the manufacturing of cements and 5S principles followed in the factory.





Industrial Interaction

The Department of Mechanical Engineering, organized one-day Industrial visit to Tuticorin Thermal Power Station, Thoothukudi on 21.09.2022 for III-year Mechanical Engineering students. During the industrial visit students are learned how the machines are controlled through control system, mechanical process involved in the generation of electricity and the safety systems followed in the power plant.





One-day Industrial visit to Tuticorin Thermal Power Station, Thoothukudi

Industrial Interaction

The Department of Mechanical Engineering, organized one-day Industrial visit to VVV & Sons Edible Oils Ltd, Virudhunagar on 04.11.2022 for II-year Mechanical Engineering students. During the industrial visit students are learned Filtering process, Heating Process, Separation work, Storage Yard (Raw Material Storage & Finished Good Storage) & Fully automatic Packing process.





Editorial Board

Role	Name	Desingnation
Chief Editor	Dr.R.Selvabharathi	Professor/ HOD
Editor	Mr.M.Nagendran	AP/Mech
Students Members	Mr.S.Purusothaman Mr.Vetrivel Mr. Rohit Gurubala	VII Sem/ IV Year V Sem /III Year III Sem / II Year

IN THE PRESENCE OF

Shri. P. Panjurajan
Founder, AAA Group of Institutions

Dr. P. Karvannan
Chairman & Secretary

Dr. P. Ganesan
Correspondent

Dr. M. Sekar
Principal

Dr. K. Vignesh Kumar
Joint Secretary

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