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.

Department of Mechanical Engineering

SAEINDIA
NORTHERN SECTION



Professional club Activities 2022-2023

Mechatronics and IoT program

Volume 1

INDEX

- Vision & Mission of the Institution and Department
- Program Outcome, PSO, PEO
- Sustainable Development Goal
- Message from Principal
- Message from Head of the Department
- Students memers list
- List Activities
- Editorial Board

INSTITUTIONS VISION MISSION

VISION OF AACET

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

MISSION OF AACET

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.

Program 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
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
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
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.

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...



It gives me immense pleasure to see the active involvement of the Department of Mechanical Engineering, AAA College of Engineering and Technology, in the activities of the SAE India Collegiate Club during the academic year 2022–2023. The various programmes on Reverse Engineering, UG/NX CAD Modelling and Drafting, Embedded Systems and Mechatronics provided students with valuable opportunities to enhance their technical knowledge, practical skills and innovative thinking. The participation of students in national-level activities and the inauguration of the SAEINDIA Collegiate Club of AAACET have further strengthened their professional exposure and industry awareness. I appreciate the sincere efforts of the faculty members, SAE India Southern Section and student members in organizing these activities and encourage our students to actively participate in professional society activities to develop their technical competence, creativity, leadership and professional values. I wish the SAE India Collegiate Club of AAACET continued success and greater achievements in the years ahead.

Dr. M. Sekar

Principal

MESSAGE FROM THE HOD...



It is a matter of great satisfaction to see the enthusiastic participation of our students in the SAE India Collegiate Club activities during the academic year 2022–2023. The Department of Mechanical Engineering has continuously encouraged students to enhance their knowledge beyond the classroom through technical programmes, competitions and hands-on training. Activities such as Reverse Engineering, UG/NX CAD Modelling and Drafting, Embedded Systems and Mechatronics provided students with practical exposure to emerging technologies and their industrial applications. The inauguration of the SAEINDIA Collegiate Club of AAACET was an important milestone in providing students with wider professional exposure and opportunities. I sincerely appreciate the efforts of the faculty coordinators, SAE India Southern Section and student members and encourage our students to utilize SAE India as a platform for learning, innovation, professional networking and leadership development. I wish the SAE India Collegiate Club of AAACET continued success and many more accomplishments in the future.

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

SAE MEMBERS LIST 2022-2023

SL. No.	Member ID	Name of the students	Last Name	Grade
1	7220421452	Veerakumar	S	Student
2	7220421451	Thilagaraj	SS	Student
3	7220421450	Sudhakar	P	Student
4	7220421449	Sriramadesikan	R	Student
5	7220421448	Sakthish Balan	M	Student
6	7220421447	Rahamathulla	S	Student
7	7220421446	Raghul Sharma	M	Student
8	7220421445	Nataraja	CSK	Student
9	7220421444	Mohamed Hanifa	S	Student
10	7220421443	Hariharan	K	Student
11	7220421442	Balaji	S	Student
12	7220421441	Athish Yuaraj	KT	Student
13	7220421440	Ajith Kumar	V	Student
14	7220421439	Vikram A	AR	Student
15	7220421438	Vijayasurya	M	Student
16	7220421437	Vetrivelmani	T	Student
17	7220421436	Selvakumar	M	Student
18	7220421435	Satheeskumar	P	Student
19	7220421434	Saravanakumar	S	Student
20	7220421433	Sarathi Kannan	S	Student

SAE MEMBERS LIST 2022-2023

SL. No.	Member ID	Name of the	Last Name	Grade
21	7220421432	Sanjay	N	Student
22	7220421431	Prabhakaran	M	Student
23	7220421430	Prabhakaran	K	Student
24	7220421429	Muneeswaran	R	Student
25	7220421428	Mohammed Usman	A	Student
26	7220421427	Manojkumar	M	Student
27	7220421426	Kishore Pandiarajan	K	Student
28	7220421425	Kaleeswaran	S	Student
29	7220421424	Jeyarajasekar	K	Student
30	7220421423	Kaviyarasan	V	Student
31	7220421422	Kamalutheen	E	Student
32	7220421421	Hariharan	P	Student
33	7220421420	Gopalakrishnan	M	Student
34	7220421419	Ganesan	M	Student
35	7220421418	Balasubrmanian	K	Student
36	7220421417	Ayyanar	P	Student
37	7220421416	Anandharaman	M	Student
38	7220421415	Abimanyu	T	Student
39	7220421414	Prabhakaran	S	Student
40	7220421413	Ananthaesvar	M	Student

SAE MEMBERS LIST 2022-2023

SL. No.	Member ID	Name of the	Last Name	Grade
41	7220421412	Sulthan Sait	S	Student
42	7220421411	Rameshkumar	M	Student
43	7220421410	Purusothaman	P	Student
44	7220421409	Naveen Vishuwaraj	J S	Student
45	7220421408	Mariselvam I	I	Student
46	7220421407	Karthikeyan	R	Student
47	7220421406	Jeyakumar	T	Student
48	7220421405	Anantharaman	N	Student
49	7220421404	Viswanath	N	Student
50	7220421403	Vikram	P	Student
51	7220421402	Vetrivel	S	Student
52	7220421401	Thilip Kumar	S	Student
53	7220421400	Thazhaieswaran	K	Student
54	7220421399	Sudharsanan	N	Student
55	7220421398	Selva Kumar	P	Student
56	7220421397	Sathis Kanna	S	Student
57	7220421396	Saravana Akash	L	Student
58	7220421395	Rajeshwaran	M	Student
59	7220421394	Nagarajan	V	Student
60	7220421393	Mathivanan	TA	Student

SAE MEMBERS LIST 2022-2023

SL. No.	Member ID	Name of the	Last Name	Grade
61	7220421392	Mathan	K	Student
62	7220421391	Manikandan	M	Student
63	7220421390	Lavankumar	N	Student
64	7220421389	Karthick	R	Student
65	7220421388	Kaneeswaran	S	Student
66	7220421387	Kalicharan	P	Student
67	7220421386	Idhayakkani	P	Student
68	7220421385	Avinith	M	Student
69	7220421384	Arun Prakash	R	Student
70	7220421383	Arunpandian	S	Student

LIST OF ACTIVITIES

Sl.No.	Name of the activities	Date
1	SAEISS Online awareness program on National Level Competition on Reverse Engineering	07.06.2022
2	Participation in National Level Competition on Reverse Engineering – MIT Campus, Chennai	01.08.2022 to 06.08.2022
3	Industrial Visit – Sun Pressing Pvt Ltd, Madurai	18.08.2022
4	SAEISS Online awareness program on UG/NX CAD Modelling and Drafting	23.08.2022
5	Industrial Visit – Ramco Cements Limited, RR Nagar	09.09.2022
6	Industrial Visit – Tuticorin Thermal Power Station, Thoothukudi	21.09.2022
7	Online awareness program on National Level Competition on Embedded System	21.09.2022
8	Mechatronics Workshop on Hands-on Training	01.10.2022
9	SAE Trek – Meru Malai with Auto Quiz Competition	01.10.2022
10	Industrial Visit to VVV & Sons Edible Oils Ltd, Virudhunagar	04.11.2022
11	Project Expectation	03.04.2023
12	Industrial Visit – Anaamalais Toyota, Sivakasi	25.04.2023

CLUB ACTIVITIES

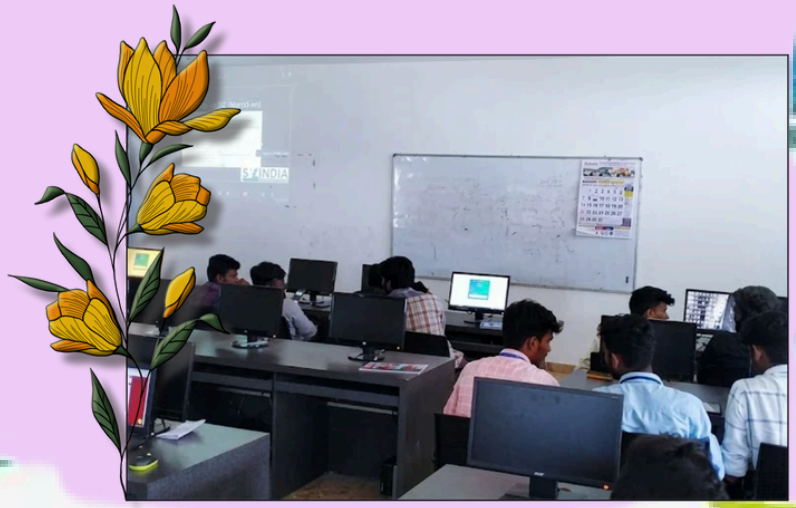
National Level Competition on Reverse Engineering

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.



Dr.P.Seenikannan HOD/Mechanical delivered important features reverse engineering and scope in Mechanical Engineering

Students Attending Online Workshop on 07.06.2022 at CAD/CAM Laboratory



CLUB ACTIVITIES

UG/NX CAD Modeling and drafting

Department of Mechanical Engineering & The SAE India Southern section was conducting "UG/NX CAD Modeling and drafting" for student's online webinar on 23.08.2022 at CAD/CAM Laboratory, Cambridge Block. The Chief Guest Mr.R.A.Armstrong , SAE Southern section , Chairman, Chennaigiven awareness about the program of UG/NX CAD Modeling and drafting , unique feature about UG/NX CAD, and also given briefly this software application in industry and their mobility concept in design. Totally 66 students of SAE members attended this event.



Online webinar - UG/NX CAD Modeling and drafting

SIEMENS NX

CLUB 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.





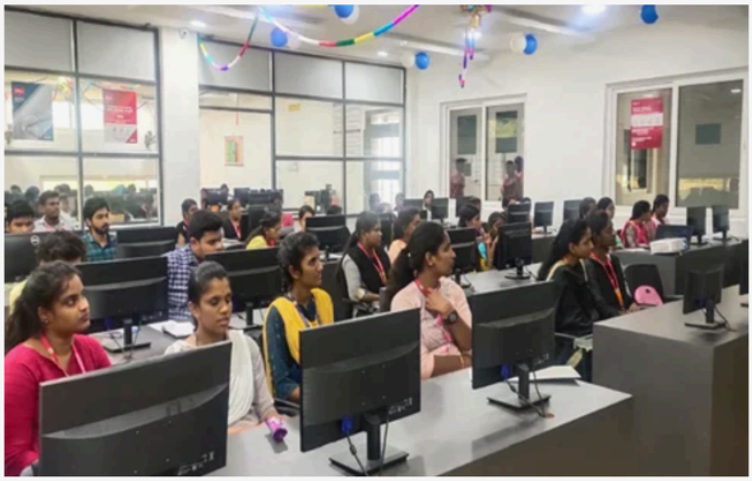


students active Participation

CLUB ACTIVITIES

National Level Competition on embedded system

Department of Mechanical Engineering & The SAE India Southern section was conducting "National Level Competition on embedded system" for student's online webinar on 21.09.2022 at Digital signal processing Laboratory, Cambridge Block. The Chief Guest Mr.T.Kasiraja, SAE India Southern section, secretary, delivered importance of this competition and give detail about reverse engineering and scope of reverse engineering in industry, Mr.M.Nagendran AP/Mech was giving introduction about embedded system application in mechanical field and 42 students attended this event.



Students attending online section in Digital signal processing Laboratory

Mr.M.Nagendran AP/Mech was giving introduction about embedded system application in mechanical field



CLUB ACTITIVIES

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.



Dr.P.Seeni kannan
HOD/Mechanical honoring Chief Guest Mr.A.Arunkumar



Chief Guest Mr.A.Arunkumar addressing about Mechatronics application in real life

CLUB ACTITIVIES

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.



The SAE India Southern section was inaugurated the SAEINDIA collegiate club of AAACET

Club organization certification



INDUSTRIAL VISITS

SUN Pressing Pvt Ltd.

The Department of Mechanical Engineering, organized one-day Industrial visit to Sun Pressing Pvt Ltd, Madurai on 18.08.2022 for IV year Mechanical Engineering students. During the industrial visit students are Engaged in manufacturing various types of sheet metal products like Metallic Shells, Flanges, Mounting Brackets, Front engine support bracket, Cross members anti vibration parts & other Metal components for Automotive and non-automotive Industry.





One-day Industrial visit to Sun Pressing Pvt Ltd, Madurai

INDUSTRIAL VISITS

Ramco Cements Limited

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.



Raw mill Ball mill unit at Ramco cements





INDUSTRIAL VISITS

Tuticorin Thermal Power Station

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 VISITS

VVV & Sons Edible Oils Ltd

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.





VVV & Sons Edible Oils Ltd

INDUSTRIAL VISITS

Anaamalais Toyota

The Department of Mechanical Engineering has organized a one-day Industrial visit to Anaamalais Toyota, Sivakasi, on 25.04.2023 for B.E. IV year Mechanical Engineering students. The HR of Anaamalais Toyota explained the processes involved in general service, waterwash, spare parts, tools room, painting section, engine room etc. The workers were doing their work with more concentration. Everyone inside the industry was wearing masks, safety shoes and gloves.



Anaamalais Toyota



Ediotial board

Role	Name	Desingnation
Chief Editor	Dr.R.Selvabharathi	Professor/ HOD
Editor	Mr.M.Nagendran	AP/Mech
Students Members	Mr.Mariselvam 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

© AAACET. All Rights Reserved.