



DEPARTMENT OF MECHANICAL ENGINEERING



“AIME”

NEWSLETTER

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ABOUT THE COLLEGE

Amrita College of Engineering and Technology (ACET) is a co-educational, self-financing Engineering College (formerly Sun College of Engineering and Technology, established in the year 1999) run by Mata Amritanandamayi Math (MAM), Kollam from the academic year 2018-19. MAM is an International charitable organization aimed at the spiritual and material upliftment of humankind. MAM was founded in 1981 by the spiritual leader and humanitarian Mata Amritanandamayi Devi, with its headquarters in Paryakadavu, Alappad Panchayat, Kollam district, Kerala.

The College has been approved by the All India Council for Technical Education, New Delhi, and is affiliated to the Anna University, Chennai. The College is located inside Amrita Institutions Campus, Nagercoil, in a sprawling area of a 100-acre lush green campus, which is situated about 5 Kilometres north of Nagercoil, the headquarter of Kanyakumari District.

Amrita Institutions is known for its value-based quality education through continuously improving its infrastructure, human resources, and teaching-learning process and we are committed to imparting high-quality skill based education in Engineering & Technology to the youth in order to meet the challenging requirements of the industries.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering at Amrita College of Engineering and Technology was started way back and has been continuing its glorious journey ever since. The department offers an undergraduate programme in Mechanical Engineering with an annual intake of 60 students. The curriculum, as per the Anna University Regulation covers subjects such as manufacturing technology, theory of machines, thermodynamics, fluid mechanics, materials science, thermal engineering, and CAD/CAM. This programme aims to provide quality education in Mechanical Engineering keeping in pace with the current and futuristic demands in this field.

In order to expose the students to recent technological advances, Guest Lectures are arranged inviting eminent Scientists, Technocrats, Industrialist and Professors. Internships, In-plant training and Industrial Visits are also arranged for the students to gain practical knowledge.

The department also has IE(I) students Chapter, SAE club, AIME students association. The Department takes great pride in delivering technically competent and ethically responsible engineers to society, and it commits to continuing to do so.

Message from HOD's Desk

The newsletter is the best platform that broadens students' perspectives and encourages students' literary skills and innovations to be recognized. I want to congratulate all the students and faculty members for their wonderful support for the Newsletter publication successfully. This issue explores the hidden talents, commitment, involvement, and achievements of the Department students and Faculty members. Also, I invite the readers of "AIME" for their contributions and suggestions for further issues.

Message from Editor's Desk

It brings me immense pleasure to introduce the 2nd issue of the department newsletter "AIME". It encourages, illumines, and enables the student and faculty members to focus on their goals and achievements.

The current newsletter highlights our students' activities and faculty achievements during the past six months. I am thankful to the faculty and students of the Department of Mechanical Engineering for their valuable input.

I hope this Newsletter will motivate many students to come forward and express their talent and creativity. I would like to thank our Principal and HOD for their continuous motivation, and time-to-time feedback for the final draft.

Editorial Board

Chief Editor:

Dr. Babu B, Associate Professor & HOD, Mechanical Engg.

Editor:

Mr. Saravanaram G, Assistant Professor, Mechanical Engg.

Student Members

Mr. Dharun Kumar J, IV Year B.E. Mechanical Engg.

Mr. Renjith R R, III Year B. E. Mechanical Engg.

Mr. Abhinav A G, II Year B. E. Mechanical Engg.

"You are the creator of your own destiny."

- *Swami Vivekananda*

What's Inside?

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Vision of the Department

- To contribute to the nation by producing professionally competent, industry-ready mechanical engineers enriched with values and ethics through excellence in technical education and the promotion of entrepreneurship.

Mission of the Department

1. Establishing and enriching ambiance with a value-based education system supported by quality resources and teaching.
2. Implementing a periodical learning evaluation processes to nourish the student's knowledge and skills in the discipline of mechanical engineering.
3. Establishing centers of excellence in mechanical engineering to promote academic growth by generating new knowledge and fostering entrepreneurial talent to meet the challenging requirements of society.
4. Improving interactions with the stakeholders to ensure continuous improvement in the teaching, learning and training processes to meet the changing requirements.
5. Promoting co-curricular and extra-curricular activities to develop the life skills of graduating students.

Programme Educational Objectives (PEOs)

1. To acquire the fundamental and technical knowledge in the field of Mechanical Engineering and allied fields.
2. To impart skill-based training program to Design, Analyze and Create innovative solutions for technical challenges for the emerging industrial needs and higher studies.
3. To inculcate them with professional and Ethical attitude, Effective communication and Managerial skills.

Programme Specific Outcomes (PSOs)

PSO-01 - Understand the concept in various areas of Mechanics, Manufacturing, Materials and Thermal Engineering.

PSO-02 - Apply the engineering concepts in various domains and to solve a problem with the use of recent Design and Manufacturing hardware/Software tools.

PSO-03 - Provide solutions through acquired knowledge and skills for the advancement of society and self.

“Curiosity is the Engine of Achievement.”

- **KEN ROBINSON**

Technical Symposium

A National Level Technical Symposium “MECH MANIA 23” was conducted on 01.04.2023. The technical sessions were inaugurated by Dr. B. Babu, Head of the Department, Department of Mechanical Engineering. Various technical events such as Paper presentation, CAD Modelling, Quiz and Project Expo were conducted.



Introduction Speech



Participants of the Event

Seminar Organized

Department of Mechanical Engineering and Entrepreneurship development cell jointly organized a Seminar on the topic “Awareness on TNSI 2022” for Engineering Students on 20.01.2023. Resource Person: Mr. R. Rajesh, Field Coordinator, University College of Engineering, Nagercoil.



Speech by the Resource Person

Department of Mechanical Engineering, Department of Electronics and Communication Engineering and IE(I) jointly organized a One-day hands on training on Arduino for IE(I) Student members of Mechanical Engineering and Electronics and Communication Engineering on 23.02.2023. Resource Person: Mr.S.Arun, Assistant Professor, Amrita College of Engineering and Technology, Nagercoil.



Presentation by the Resource Person

Department of Mechanical Engineering and Higher Education Cell jointly organized a webinar on the topic “Awareness on Overseas Education” for members of Higher Education Cell on 16.03.2023. Resource Person: Ms.Subha, Operational Head, KC Overseas, Trivandrum.



Address by the Resource Person

Department of Mechanical Engineering organized a workshop on “Outcome Based Education and NBA Accreditation Process” for all Staffs on 11.03.2023. Resource Person: Dr. G. Rajkumar, Professor & Controller of Examination and Mr. J. Daniel Sathyaraj, Assistant Professor, Francis Xavier Engineering College, Tirunelveli.



Address by the Resource Person

Department of Mechanical Engineering and Standards Club organized a Seminar on the topic “Awareness about Indian Standards” for Engineering Students on 27.03.2023. Resource Person: Mrs. Hemalatha P Panicker, Scientist-D, Joint Director, BIS, Madurai Branch.



Address by the Resource Person

Industrial Visit

The students of II Year B.E Mech. Engg. visited India Cements Limited, Sankarnagar, Tirunelveli on 27.12.2023. Mr. M. Rajesh Kannan, & Mr. G. Saravanaram accompanied the students.



Faculty Development Program/ Conferences/ Workshops- Attended by the Faculty

S.No.	Name of faculty	Program Attended	Organizer	Date
1.	Dr. B. Babu	FDP on “Advanced Technologies for Emerging Research in Mechanical Engineering”	Annamacharya Institute of Technology and Science, Bengaluru.	05.12.2022 to 09.12.2022
2.	Dr. B. Babu	FDP on “Recent Advancement in Science and Engineering”	Regional College for Education Research and Technology, Jaipur.	26.12.2022 to 30.12.2022
3.	Mr. G. Saravanaram			
4.	Mr. M. RajeshKannan			
5.	Dr. M. Navaneetha Krishnan			
6.	Dr. R. S. Jayaram			
7.	Mr. K. Aravinth			
8.	Mr. P. Saravanamuthu kumar	FDP on “Personality Grooming - Handling Stress and Emotional Intelligence”	PPG College of Arts and Science, Coimbatore.	02.01.2023 to 06.01.2023
9.	Dr. B. Babu			
10.	Dr. R. S. Jayaram			
11.	Dr. M. Navaneetha Krishnan			
12.	Mr. M. RajeshKannan	FDP on “Use of ICT tools in Teaching Learning Process”	Maharaja Bhoj Govt.P.G.College, Madhya Pradesh.	16.01.2023 to 20.01.2023
13.	Dr. B. Babu			
14.	Dr. R. S. Jayaram			
15.	Dr. M. Navaneetha Krishnan			
16.	Mr. P. Saravanamuthu kumar			

17.	Mr. M. RajeshKannan	Two-Days Training on “Mentors of Standard Club”	Bureau of Indian Standards, Madurai.	23.01.2023 to 24.01.2023
18.	Dr. B. Babu	FDP on “Greener living: Reduce, Reuse and Recycle”	Raj Rishi Govt. College, Rajasthan.	01.02.2023 to 07.02.2023
19.	Dr. B. Babu	Three-Days Workshop on “Role of Assessment and Accreditation towards improving the Quality of Education and National Educational Policy Implementation in Higher Education Institutions”	Kamaraj College of Engineering and Technology, VirudhuNagar.	08.02.2023 to 10.02.2023
20.	Mr. G. Saravanaram			
21.	Mr. M. RajeshKannan	FDP on “Product Design Engineering and Modelling”	Francis Xavier College of Engineering, Tirunelveli.	13.02.2023 to 17.02.2023
22.	Mr. K. Aravinth	FDP on “Smart and Advanced Manufacturing - Design and Simulation”	Government College of Engineering, Tirunelveli.	13.02.2023 to 17.02.2023
23.	Mr. P. Saravanamuthu kumar	FDP on “Electric Vehicle Design”	St. Xavier’s Catholic College of Engineering, Nagercoil.	13.02.2023 to 17.02.2023
21.	Dr. B. Babu	FDP on “Innovation, Research and IPR-Journey Towards Excellence”	BVB Sardar Patel College of Engineering, Mumbai.	01.03.2023 to 05.03.2023
22.	Dr. B. Babu	Webinar on “The nuances of writing a Research Paper and Publishing it in High Reputed Journals”	JP College of Engineering, Tenkasi.	30.03.2023

Paper publication in Conference

- Babu, B. (2023 January-28. Investigation on the Effect of Friction Welding Parameters on Hardness Property for Dissimilar Materials AL 6063 -AL 5383. ICISSET-22, Namakkal, Tamil Nadu, India.
- Babu, B. (2023). Halting the covid-19 widespread:An audit on the progress of Determination, Treatment and control Measures. European Journal of Molecular & Clinical Medicine, 10 (1), 3014-3038.
- Babu, B., S. (2023, March 18). Review on Digital Marketing.EHSM, Bharatpur, Rajasthan, India.
- Babu, B., (2023, March 23-24). Tribological and Mechanical Properties Investigations on Polymer based Composites Reinforced with Bio fillers. AMMIE, Vellore, Tamil Nadu, India.
- Babu, B., (2023, April 21-22). Green Manufacturing and Design Utilises in Mechanical Engineering. ICETSMR, Narasaraopeta, Andhra Pradesh, India.

Paper Publication in Journal

- Kannan, C. R., Suresh, S., & Navaneetha Krishnan, M. (2023). Influence of Acoustic emission signals and damage Analysis during the tensile test on Al8011 hybrid composites by stir casting method. Archives of Metallurgy and Materials, 68(1), 223-225.
- Girimurugan, R., Babu, B., Saravanan, R., Vigneshwaran, M., & Mehanathan, S. (2023). Effect of

kapok seed powder on mechanical and water intake properties of untreated kenaf fiber composites. *Materials Today: Proceedings*. <https://doi.org/10.1016/j.matpr.2023.01.045>

- Babu, B., Muruganandhan, P., Girimurugan, R., Sakthi, S., Nanthakumar, S., & Vignesh, S. (2023). Influence of powdered chick eggshell (PECS) on mechanical and wear properties of kenaf fiber (KF) reinforced composites. *Materials Today: Proceedings*.
- Yuvaraj, S., Babu, B., & Ramesh Kumar Yadav. (2023). Safety Attachment for Carriers of Walking Disabled Persons. *International Journal of Scientific Methods in Engineering and Management*. 1(2), 24-32.

Book Publication

- Babu, B., Jayaram R. S. & Saravanamuthu kumar, P. Review of the Literature on the Indian Entrepreneurial Environment. In Lallianzuali Fanai (ed). *Exuberant Research*. Shree Siddhi vinayak Global Publication Maharashtra .
- Babu, B., Innovation of Multidisciplinary Research in Present and Future Time: A Review of Lean and Green Manufacturing System. Biplab Auddya (Ed.). *Innovation of Multidisciplinary Research in Present and Future Time* (pp. 13-17). Insta Publishing, Chattisgarh .
- Babu, B. (2023 January-28. *Machining of Hybrid Aluminium Metal Matrix Composites: A Review*. ICNHSEMH-23, Pune, Maharashtra, India.
- Babu, B. (2023). *Digital Transform Using Emerging Technologies: Overview of Industrial Development-Green Manufacturing*. AN Publication, Tiruvallur.
- Babu, B., (2023). *Emerging Technologies in Automotive and Mechanical Sciences: Incorporating 3D Printing Technology in Mass Production*. Scientific Research Reports, Chennai.

Patent

- Babu, B. (2022). Smart painting roller with temperature sensor to detect the temperature of wall and paint. India Patent Number: 202241070559
- Babu, B. (2023). Impact and Analysis of Green Concept in Mechanical Design and Manufacturing Industry. India Patent Number: 202341012538

Grant Received

- Workshop grant Proposal submitted to Entrepreneurship Development and Innovation Institute, Tamilnadu. (Dated:05.12.22 and amount sanctioned was Rs.5,000/-) Received by: Mr. G. Saravanaram.
- Student Projects Scheme Proposal submitted to Tamilnadu State Council for Science and Technology (TNSCST), Tamil Nadu. (Dated: 03.03.23 and amount sanctioned was Rs. 7,500/-) Received by: Mr. K. Aravinth.
- Workshop grant Proposal submitted to Entrepreneurship Development and Innovation Institute, Tamilnadu. (Dated:31.03.23 and amount sanctioned was Rs.5,000/-) Received by: Mr. G. Saravanaram.

Placement Training

- Students of II B.E (ME) have attended Aptitude and Soft skills Training from 13-02-2023 to 17-02-2023. Resource person: M/s INNATE TALENT, Chennai.
- Students of III B.E (ME) have attended Aptitude and Soft skills Training from 13-02-2023 to 17-02-2023. Resource person: M/s INNATE TALENT, Chennai
- Students of IV B.E (ME) have attended Aptitude and Soft skills Training from 01-03-2023 to 02-03-2023. Resource person: M/s INNATE TALENT, Chennai.

Student's / Staff Achievements

Sl. No.	Name of student	Class	Date	Name of the Event	Organizer Name	Prize
1.	Dr. B. Babu	-	22.12.2022	-	M/s Fabtech Enginiers, Coimbatore.	Signed MoU
2.	Mr. S.G. Sree Akash	III B.E. (Mech.Engg.)	30.03.2023	Technical Quiz	Stella Marys College of Engineering, Kanyakumari.	II

Performance in NPTEL

Sl. No.	Name of the Faculty	Date	Name of the course	Organizer Name	Prize
1.	Dr. B. Babu	January to April 2023 (12-week course)	NPTEL online certification Examination "Computer Integrated Manufacturing"	IIT Kanpur	Elite
2.	Mr. M. Rajesh Kannan	January to April 2023 (12-week course)	NPTEL online certification Examination "Product Design and Manufacturing"	IIT Kanpur	Elite

Top Rankers in the Anna University Examinations

The following students are the class toppers in the Anna University Examination Conducted during Nov/ Dec- 2022.

II Year B.E. Mechanical Engineering



Mr. A G Abhinav

GPA: 8.5

Rank: I

III Year B.E. Mechanical Engineering



Ms. M. PriyaDharshini

GPA: 8.5

Rank: I

IV Year B.E. Mechanical Engineering



Mr. R. Aswin Prabhu

GPA: 9.05

Rank: I

In-plant training/ Internship undergone by students

- Mr. M.S. Ajai, Mr. S. Ajay, Mr. M. Shreedharan, Mr. K.S. Sreejith, Mr. M.V. Prasana Siva, Mr. S. Pratheesh, Mr. N. Muhesh, Mr. V.T. Pareetshith Ram II Year B.E. Mech. Engg., have attended internship in Craft Engineering, Coimbatore from 12.01.2023 to 25.01.2023.
- Mr. S. Sujith, Mr. M.V. Anil Kumar, Mr. S. Aravind, Mr. K. Aswin, Mr. S. Bagavathy Perumal, Mr. R. Gopi Krishnan, Mr. Q. Mesach, Mr. S.T. Naga Selva Ganesh, Mr. S. Sobin, Mr. C. Sundar, Mr. J.G. Ajithram, Mr. A. G. Abhinav, Mr. G.S. Govardhan, Mr. A.K. Jaya Surya, Mr. Venkatesh Natarajan, II

Year B.E. Mech. Engg., have attended internship in J.K Industries, Coimbatore from 12.01.2023 to 25.01.2023.

- Mr. S. Sathasivan Pillai, Mr. S.G. Sree Akash, Mr. P. Sabari, III Year B.E. Mech. Engg., have attended internship in Tamilnadu State Transport Corporation Limited, Nagarcoil, from 02.01.2023 to 07.01.2023.
- Mr. S.S. Hari Sudhan, IV Year B.E. Mech. Engg. has attended internship in Tamilnadu State Transport Corporation Limited, Nagarcoil, from 13.01.2023 to 18.01.2023.
- Mr. S.S. Abilash, Mr. S. Easwar, Mr. R. Nithesh, Mr. K.M. Amriteshwar, Mr. K.K. Dhaniesh, Mr. M.R. Bhagavathi Thanu, Mr. R. Akash, III Year B.E. Mech. Engg., have attended internship in Macpro Experts, Bangalore from 30.12.2022 to 14.01.2023.
- Mr. J. Dharun Kumar, Mr. S.R. Subramoniam, Mr. P.A. Siva Subramani, Mr. C.S. Sakthi Harish, Mr. N. Siva Mrugan, IV Year B.E. Mech. Engg., have attended internship in Nuclear Power Corporation of India Limited, Kudankulam from 16.02.2023 to 24.02.2023.

Placement Details

Sl. No.	Student name	Company name
1	Mr. I. Ajay	M / s Varroc Polymers, Chennai.
2	Mr. R.C. Abhijith	
3	Mr. K.K. Badmesh	
4	Mr. R. Vaikunda Rajan	
5	Mr. S. Suvixsen	
6	Mr. A.P. Vaihindh	
7	Mr. M. Abiram	
8	Mr. A. Athimani	
9	Mr. C. Muthu Manikanda Raj	
10	Mr. C. Abishek	
11	Mr. S. Saikumar	
12	Mr. A. Abinesh	
13	Mr. M.K. Shiju	
14	Mr. A. Natesh	
15	Mr. R. Ajay	
16	Mr. S. Bharath Kumar	
17	Mr. S. Aswin Sundar	
18	Mr. J. Dharun Kumar	
19	Mr. C.S. Sakthi Harish	
20	Mr. N. Anantha Rajan	
21	Mr. C. Aravindasamy	
22	Mr. T. Deva Theena Susikaran	

23	Mr. M. Dinesh		
24	Mr. G. Dhanaraj		
25	Mr. S. Saravanan		
26	Mr.S. Prasanth		
27	Mr. V.P Nithil Tharun		
28	Mr. N. Sivamurugan		
29	Mr. S. Ajitharan		
30	Mr. M.P. Barath		
31	Mr. V. Sankara Narayanan		
32	Mr. C.S. Viswanath		
33	Mr. C. Muthu Manikanda Raj		M / s Delphi TVS, Chennai.
34	Mr. C.S. Sakthi Harish		M / s JSE Engineering, Chennai.
35	Mr. P.A. Siva Subramani		
36	Mr. S. Aswin Sundar		
37	Mr. J. Dharun Kumar		
38	Mr. K.P. Bharathwaj		
39	Mr. N. Sivamurugan		
40	Mr. G. Dhanaraj		