



SWARNANDHRA

College of Engineering and Technology
(Autonomous)

Seetharampuram, Narsapur, Andhra Pradesh 534280



- To lay a strong foundation of technical knowledge by concentrating on fundamental concepts of Mechanical engineering.
- To develop creative thinking and innovative methods for solving complex engineering problems.
- To develop team spirit, leadership and professional qualities.

MECHAZINE

BI - ANUAL MAGAZINE

Editorial Members

1. Dr. A Gopichand, HOD-ME
2. Dr. R. Lalitha Narayana, Assoc. Prof - ME

Student Coordinators:

1. G Kumar Datta (20A25A0321)
2. P S S S Prasad (20A21A0354)

DEPARTMENT OF MECHANICAL ENGINEERING

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ABOUT DEPARTMENT:

The Department of Mechanical Engineering was established in the academic year 2004. The Department presently offers Under-graduate study program leading to the degree of Bachelor of Mechanical Engineering and Post Graduate program M.Tech CAD/CAM. The initial intake of the department is 60 in UG Program. Then the Department got approval for additional intake of 30 in 2008 another 30 in 2009, latter 60 more seats were added in 2015 with approval from AICTE for UG Program. PG Program - M.Tech. (CAD/CAM) is started in 2009 with an intake of 18. Thus the present intake is 180 in UG and 18 in PG Programs.



AICTE for UG Program. PG Program - M.Tech. (CAD/CAM) is started in 2009 with an intake of 18. Thus the present intake is 180 in UG and 18 in PG Programs. The department is broadly divided into three academic groups:

- Machine Design
- Industrial & Production Engineering
- Thermal Engineering.

The Department has highly qualified and experienced staff in all streams of Mechanical Engineering. Interactive relationship is maintained between the students and staff. The department consists of various laboratories and facilities with modern sophisticated equipment. The faculty actively participates in sponsored research and consultancy work, conducts seminars and short-term courses. The department has carved itself, a niche as one of the finest in the state.

The department of Mechanical Engineering has successfully completed a research project titled “Experimental investigations of Edible and non-edible oil/blends for performance and exhaust gas analysis for suitability as alternative to diesel oil”, sponsored by AICTE under RPS scheme. The department is equipped with modern systems and tools like FMS system, Computer operated IC Engine and Taly surf for surface roughness measurement etc. Students also published various papers in reputed journals. The department of mechanical engineering has organized National conference and several workshops, seminars and Faculty development programs periodically. Presently the department focuses on research areas such as Analysis of 3D Fracture in composite materials using ANSYS, Conducting Performance and Emission tests on various bio fuels using Computerized Multi fuel Variable Compression Engine, Surface roughness tests for artificial teeth and Optimization of various parameters to obtain better surface finishing of various metals and. Alloys.



INSTITUTION VISION MISSION

VISION:

"To produce global competent, ethical and dynamic professionals by creating Centre of Excellence in Technical Education for societal empowerment."

MISSION:

- To provide quality education with knowledge and skills for rural and urban students.
- To collaborate the industries with academia for empowering the students to meet global standards.
- To induce highly ethical entrepreneurship in young minds with good leadership quality for the society.
- To enhance the institution in Research and Development by human intellectual capability.

DEPARTMENT VISION MISSION

VISION:

- To educate and enrich effective and responsible Mechanical Engineers to fulfill the needs of industry and society.

MISSION:

- M1 - To lay a strong foundation of technical knowledge by concentrating on fundamental concepts of Mechanical engineering.
- M2 - To develop creative thinking and innovative methods for solving complex engineering problems.
- M3 - To develop team spirit, leadership and professional qualities.
- M4 - To strengthen research abilities in collaboration with industry.



Explore the Nature

DEPARTMENT OF MECHANICAL ENGINEERING

Principal's Desk:

It is my pleasure to welcome you to Swarnandhara College of Engineering and Technology (SCET) under Vasista Educational Society.

SCET is one of the premier institutions offering education in engineering and management providing quality education to students from all strata of society. SCET was established in 2001 with a vision to be a world class institution for technical education and scientific research.

College is a time of growth, exploration, and self-discovery. It is a time when you challenge yourself, pursue your passions, and lay the foundation for your future. Each of you brings a unique perspective and talent to our college community, enriching our collective experience and inspiring us all to reach new heights.

"GAINING KNOWLEDGE, IS THE FIRST STEP TO WISDOM. SHARING IT, IS THE FIRST STEP TO HUMANITY."



Dr.S.Suresh Kumar ,BE,MS,M.Tech.,Ph.D.

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HOD'S Desk:



Dr. A Gopichand M.Tech, Ph.D

Professor, HoD-ME

mechhod@swarnandhra.ac.in

I feel ecstatic to introduce you to Department of Mechanical Engineering, which is the foundation of Engineers. Department of Mechanical Engineering strives for increasing the knowledge, enhancing the critical thinking, ability to change information into knowledge and power of analyzing the things technically of each and every individual of ever changing society through students.

As we look towards the future with optimism and excitement, let us continue to uphold the values of our college and work together to create a brighter tomorrow. I am confident that with your passion, drive, and determination, you will continue to achieve great things and make a positive impact on the world around you.

Best of luck for all your future endeavours!

Workshops/Conferences Attended by Faculty:

S. N	Name of the Faculty	Journals Details	Paper Title	ISSN/ year
1	Dr.Allaka Gopichand P Satya Narayana Raju	Computer Integrated Manufacturing Systems	Strength and corrosion characteristics of sandwich pipes for deepwater applications	ISSN 1006- 5911, 2022
2	Dr. M. Francis Luther King Dr. G. Robert Singh	Materials Today: Proceedings	An experimental study on friction stir processing of aluminium alloy (AA-2024) and boron nitride (BNp) surface composite	ISSN 2214- 7853, 2023
3	Dr. R.Sanjeev Kumar	Engineering Research Express	Influences of various natural fibers on the mechanical and drilling characteristics of coir fiber-based hybrid epoxy composites	ISSN 26318695, 2023
4	Mr.V. John Bunyan Dr. M. Francis Luther King Dr. A. Gopichand Dr. D. Bhanu Prakash	Journal of Fundamental & Comparative Research	Computational Fluid Dynamic Analysis on Rocket Nozzle Using Ansys	ISSN: 2277- 7067
5	Dr. R.Sanjeev Kumar Dr. A. Gopichand Mr P Satya Narayana Raju Mr B Mahesh Krishna	Journal of Fundamental & Comparative Research	Design and Printing Of Foldable Helmet Using 3D PRINTER	ISSN: 2277- 7067
6	Mr B Mahesh Krishna Dr.Allaka Gopichand Dr. R. Lalitha Narayana Mr Ch Harish kumar	Journal of Fundamental & Comparative Research	Design of Solar Electric Scooter Using Fusion 360	ISSN: 2277- 7067
7	Dr. R. Lalitha Narayana Dr.A Gopichand D. Bhanu Prakash Dr. G. Robert Singh P Satya Narayana Raju Dr. R.Sanjeev Kumar	Journal of Fundamental & Comparative Research	Experimental Investigation of Passive Solar Still with Coated Copper Fins	ISSN: 2277- 7067

STUDENT FOCUS:

- Pentakoti Dhanjay Venkata Siva Sai won second prize in ROBORACE organised by SRKR Engineering College (Autonomous), Bhimavaram
- Garaga Kumar Datta, & Basava Venkata Sai Satish won the second prize on India design Challenge, Fusion-360, Chennai.
- S Vamsi Krishna won 1st prize on Tree climbing Robot organised by SRKR Engineering College (Autonomous), Bhimavaram, f
- S Vamsi Krishna won 2nd prize in Robo Race of VALIANT 2K22 organized by VIT, Bhimavarm.
- Badeti Sai Krishna Subrahmanyam won 2nd prize in Project Expo conducted by Vishnu Institute of Technology, Bhimavaram
- Vanka Rakesh won 2nd prize in Robo Race conducted by K L E Institute Of Technology, Karnataka
- Garaga Kumar Datta won 2nd prize in Poster Presentation organised by Parichay, A National Level Cultural - Tech Fest, Kadapa
- Pedapati Ravi qualified in GATE EXAM -2023
- V Rakesh Chowdhary, won 1st prize in TECH VILLA in SANKETA 2023.
- V Rakesh Chowdhary, V Rakesh won 1st prize in ROBO RACE in SANKETA 2023.
- G Yugala Sai Lakshmi, A Sravani won 1st prize in 'BADMINTON DOUBLES' in Vidyouth 2023
- G Yugala Sai Lakshmi won 2nd prize in two events, "PATCH'EM UP LITERARY" & "DEVIL ADVOCATE" in BECTAGON-2K23
- G.yugala Sai Lakshmi, G.Bhargavi, B.Bhargavi, J.Hema Jyothi Sri presented a paper titled "Low-cost Obstacle Detector for Visually Impaired Using Ultrasonic Sensor" in International Conference on Recent Advancements in Engineering, Technology, and Management
- S. Sri vaishnavi, B.Balu, G. Gowtham Raja, T. Durga Prasad presented a paper titled "Biochips – A technology for the future" in International Conference on Recent Advancements in Engineering, Technology, and Management
- B. Prathyusha, I. Naga Jyothi, R. Anasuya, S. Dhana Lakshmi, A. Sravani, presented a paper titled, "Modelling Design and Analysis of E-Kart Chassis cross section using Ansys" in International Conference on Recent Advancements in Engineering, Technology, and Management

Innovation is a part of the system to drive young minds towards development of innovative products, achieving in various Hardware & Software Hackathons, Coding Challenges and Project Contests at various levels. As technology advances in today's market, faculty members prepare students as prospective entrepreneurs also.

Learning for Life: Institution provides high level of education for successful development of self-confidence and motivation. The college helps them to triumphantly handle the complexities of our society. It promotes healthy life style behaviours.

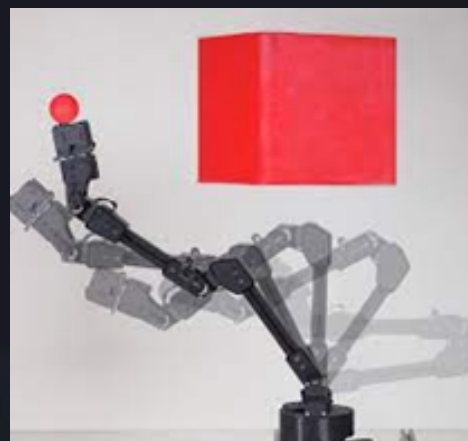
IMPORTANT EVENTS IN THE DEPARTMENT:

SNO	EVENT NAME	EVENT	DATE	RESOURCE PERSON
1	Indian Design Week	Training	8-9-2022 to 14-9-2022	Mr. Kranthi Kumar P from ICT Academy, Chennai
2	Recent trends in industry	Guest lecture	28-9-2022	B T D Praveen Varma Product manager in Eruvaka Technology P Ltd
3	Design now workshop	workshop	22-10-2022	Mr. Kranthi Kumar P from ICT Academy, Chennai
4	ARC International Internship Program	Training	29-08-2022 TO 30-10-22	Mr B VamsiKalyan ARC trainer
5	ARC workshop	workshop	31-10-22	Mr B VamsiKalyan ARC trainer
6	YANTROTSAV 2K22	National level technical fest	16, 17 – 12-2022	Tech Fest
7	My story motivational sessions by a successful entrepreneur	Workshop	3-12-2022	Mr V L K Vara Prasad Entrepreneur
8	Development of modern composite armour systems for light weight armoured vehicles	Webinar	20-12-2022	Mr P Pawan Kumar Research Scholar – IIT Roorkee

New Trends in Technology

SELF-AWARENESS ROBOT

A robot can create a model of itself to plan how to move and reach a goal – something its developers say makes it self-aware, though others disagree. Every robot is trained in some way to do a task, often in a simulation. By seeing what to do, robots can then mimic the task.



Benefits of self-aware robots

They could also be better at understanding and responding to human needs. For example, self-aware robots could be used as caregivers for the elderly or disabled, or they could be used as companions for people who live alone.

Potential risks of self-aware robots

self-aware robots could become too powerful and could pose a threat to humanity. Another concern is that self-aware robots could develop their own goals and values that are different from those of humans

GALLERY



Spots winners for the event YANTROSTAV 2K22 ,



Yantrostav 2k22 fest poster inauguration



Students secured prizes in various events



ARC International Internship Program from 29-08-2022 to 30-10-22



Roborace and robosoccer competition in YANTROSTAV 2K22, Dec 16 and 17th .