

CHAMOS MATRUSANSTHA

DEPARTMENT OF

MECHANICAL ENGINEERING

(Estd. 2001)

Scope of Mechanical Engineering

- Mechanical engineering is a discipline that applies the principles of engineering, physics & materials science for design, analysis, manufacturing & maintenance of mechanical systems.
- Mechanical engineering provides a foundation to the entire engineering education. Hence, it is known as 'Mother' discipline.
- Mechanical Engineers focus their attention towards emerging areas such as nano technology, development of composite materials, bio-medical applications, environmental conservations etc.

About the Department

The CHAMOS Matrusanstha Department of Mechanical Engineering was started in 2001. It offers following programs.

Bachelor of Technology	B. Tech (Mechanical): Honors/Minor Specialization	Master of Technology	Doctor of Philosophy
<ul style="list-style-type: none"> Mechanical Engineering (60 Seats) 	<ul style="list-style-type: none"> Robotics & Artificial Intelligence Electrical Vehicle Systems 	<ul style="list-style-type: none"> Advanced Manufacturing Technology (18 Seats) Thermal Engg. (18 Seats) 	<ul style="list-style-type: none"> Research Scholars (30 Pursuing)

Grants Fetched

- Consultancy and research work: ₹1.3 Crore
- Lab development grant (AICTE): ₹35 Lakhs
- Faculty development programs: ₹2.90 Lakhs

Faculty Strength

- All Faculty members are having research (Ph.D.) exposure.
- The department is enriched with dedicated faculty members trained from IIT, NIT and various universities of repute.

Professional Society Student's Chapters

- SAE:** Society of Automotive Engineers.
- ISHRAE:** Indian Society of Heating, Refrigerating & Air-conditioning Engineer.

Certification Courses

- FESTO:** Certificate Programs on Pneumatics, Hydraulics & Industry 4.0.
- Certificate programs on SOLIDWORKS, ANSYS etc.



Faculty Achievement

- Publications of Journals and Conference Papers : 340 +
- Patent: Device for Handling the Molten Metal
- Research Projects:
 - **SMART Foundry 2020**
Funded By: Technology System Development Program (TSDP) scheme of DST
 - **Time –Varying Performance Evaluation of Boundary Mould Elements**
Funded By: Research Promotion Scheme (RPS) of AICTE
 - **Experimental Investigation of Nano fluid Thermal Conductivity Enhancement**
Funded By: Minor Research Project Scheme of GUJCOST
 - **Tribological and Wettability Studies of Nano Structured Thin Films**
Funded By: Research Promotion Scheme (RPS) of AICTE
 - **“E-Foundry” in collaboration with IIT Bombay**
Funded By: National Knowledge Network (NKN), and GOI

Student Achievements

- Student start-up Innovation policy (SSIP) Grant Received: Total 3.78 lakhs.
- Team OJASWAT got overall 6th rank in overall dynamic & static event, in Formula Bharat Virtual Event in the November 2021 at Coimbatore, Tamilnadu.
- Team OJASWAT got overall 10th rank in the design event for Formula Bharat competition in January 2020 at Coimbatore, Tamilnadu.
- Winner in the “live model presentation” at Institute of Advance Research Gandhinagar in Jan 2019.
- 1st rank in Overall cost presentation in FFS (Engineering design competition) October 2018 organised by Fraternity of Mechanical and Automotive Engineers. at Coimbatore, Tamilnadu.
- 1st and 2nd Rank in Anveshan (Student Research Convention) at Interstate Level (West Zone), 2017.

Glimpse of 2021-22



Reliance
Solar

Bhavin Nayak (2022)

Annual Package: 7.5 Lacs



GUJARAT STATE
SOFTWEAR &
CHEMICALS LTD.
System Certified Company

Amogh Sharma (2021)

Annual Package: 4.20 Lacs



torrent
POWER

Saumil Shah (2021)

Annual Package: 3.25 Lacs

GATE: All India Rank



Rutvik Lathia

Passout:2017

GATE AIR: 5



Chirag Chaudhary

Passout:2018

GATE AIR: 151



Pravin Vasveliya

AIR:12

(CEED 2020)

Alumni Testimonials



My time at CSPIT during my bachelor's was the stepping stone to my future. CSPIT offered a perfect balance between theory and applications, where we were constantly motivated to think out of the box. I want to thank my professors enough for their guidance.

Harshil Chavda

Functions Developer,
BMW Group through Edag Engineering, Munich, Germany.

CHARUSAT, Changa means education in nature's beauty. Helpful faculty staff. It was a good experience of technical knowledge and education. Good amount of research facilities available which enhanced my practical skills. Students can show their talent in various technical events and SPOURAL.

Ranjeetsinh Parmar
Police Inspector (PI), Gujarat Police Service.





NCC Cadet- Student represented the Cultural Team during Republic Day Celebration, 2022 at New Delhi.



Team OJASWAT at FFS India 2017 & 2018 Organised By FMAE



Events: Cultural, Sports, Industrial visits.



Institute - Industry Interaction

- MOUs with industry associations like GIDC, Vatva and GIDC, V. U. Nagar etc.
- Faculties undergo industry training every year.
- Students of B.Tech. and M.Tech. final year do their projects and dissertation work as an intern with various organizations like ISRO, L & T, Apollo tyres, TBEAetc.
- Faculties have membership of technical bodies like ISTE, SAEINDIA, AMM, IIF etc. and participated in national/international conferences and workshops to enhance their domain knowledge.
- MoU with L&T power training institute to facilitate summer internship.

Indicative List of Laboratory Facilities



Universal Testing
Machine (50kN Capacity)



Wear and Friction
Monitor



3D Microscope



Magnetron Sputtering
Machine



Goniometer



CNC Vertical
Machining Centre



Electro discharge
machine



Multi-Channel
Charge Amplifier



Piezo Based Tool
Dynamometer



3D Laser Scanner
LPX 60



3D Printer



Thermal Imaging
Camera



Stir Casting
Machine



Multi-fuel, VCR
Engine Test Rig



Research Laboratory

E-Foundry Cell

Surface Engineering Lab

Materials Processing Lab

Manufacturing Technology Lab

Material Testing & Characterization

FESTO Centre of Excellence

Pneumatics, Hydraulics and Factory Automation.



Teaching Methodologies & Learning

- Students Centric Learning • ICT Based Learning
- Group /Team learning • Project Based Learning
- e-Learning /Online Classes/Online education
- Use of Learning Management System

Students Support and Best Practices

- Use of NPTEL, COURSERA, Team, Google Classroom, SWAYAM, Edmodo and Video Lectures
- Competitive Exams Assistance like TOEFL, GRE, GATE, CAT, Professional Readiness Program
- Alumni Association and Parent-Teacher Association
- Soft Skill Summer Training Programs
- Health Check-up

Prime MOUs



Our Major Recruiters



Brochure



Accredited with Grade 'A' by NAAC

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