

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

- Mechanical Engineering (60 Seats)

Master of Technology

- Advanced manufacturing Technology (18 Seats)
- Thermal Engineering (18 Seats)

Doctor of Philosophy

- Research Scholars (25 Pursuing)

B. Tech (Mechanical): Minor Specialization

- | | | |
|--------------------------------------|---|--|
| • Robotics & Artificial Intelligence | • Robotics & Internet of Things | • Environmental Geotechnology |
| • Electrical Vehicle Systems | • GIS & Remote Sensing | • Smart Cities |
| • Robotics & Artificial Intelligence | • Green Technology & Sustainability Engineering | • Artificial Intelligence & Machine Learning |
| • Electrical Vehicle Systems | • 3D Printing | |

Grants Fetched

- Consultancy and research work: Rs. 1.3 Crore
- Lab development grant (AICTE): Rs. 35 Lac
- Faculty development programs: Rs. 3 Lac

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.



Certification Courses

- FESTO: Certificate Programs on Pneumatics, Hydraulics & Industry 4.0.
- Certificate programs on software's viz. SOLIDWORKS, ANSYS etc.
- Certificate Course on 'INDUSTRIAL SAFETY' in coordination with the Federation of Gujarat Industries (FGI).

Faculty Achievement

- **Publications of Journals and Conference Papers :** 350 +
- **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

- Projects Awarded (2nd Rank) at Makerfest Vadodara 2023.



Paediatric Exo – Frame



Dia-Ocks “Diagnosis Socks”

- Rudra Patel represented the Cultural Team during Republic Day Celebration, 2022 at New Delhi.
- 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.

Glimpse of 2022-23



Ishan Patel (2023)

Annual Package: 7.5 Lacs



Maitry Gajjar (2023)

Annual Package: 7.1 Lacs



Smit Sheth (2023)

Annual Package: 6.69 Lacs

GATE: All India Rank



Chirag Chaudhary

Passout:2018

GATE AIR: 151



Arth Patel

Passout:2019

AIR: 1256



Pravin Vasveli

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

Events: Cultural, Sports, Industrial visits.



Institute - Industry Interaction

- MOUs with industry associations.
- 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, TBEA etc.
- Faculties have membership of technical bodies like ISTE, SAEINDIA, AMM, IIF, IE 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

- 16 laboratories well-equipped with latest equipments like EDM, USM, CNC machinery, Sputtering Setup, etc.



Research Laboratory

E-Foundry Cell

Surface Engineering Lab

Materials Processing Lab

Manufacturing Technology Lab

Material Testing & Characterization Lab

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



Major Software



Outstanding Attributes

- CBCS (Choice Based Credit System)
- CHARUSAT Sponsored Summer Internship at L&T Power Training Institute -Vadodara
- CDPC (Career Development & Placement Cell)
- Student Counselling
- Project & Dissertation work in reputed research organisation like ISRO, BARC, PRL, IPR etc.

Our Major Recruiters



Brochure



CHAMOS Matrusansta Department of Mechanical Engineering

Charotar University of Science and Technology,
CHARUSAT Campus, Changa, Taluka: Petlad, Dist: Anand, Gujarat (India) 388 421



Website



+91 - 2697 - 265221, 265021



me.cspit@charusat.ac.in
info@charusat.ac.in



<https://charusat.ac.in/cspit/me/>
<https://www.charusat.ac.in>



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