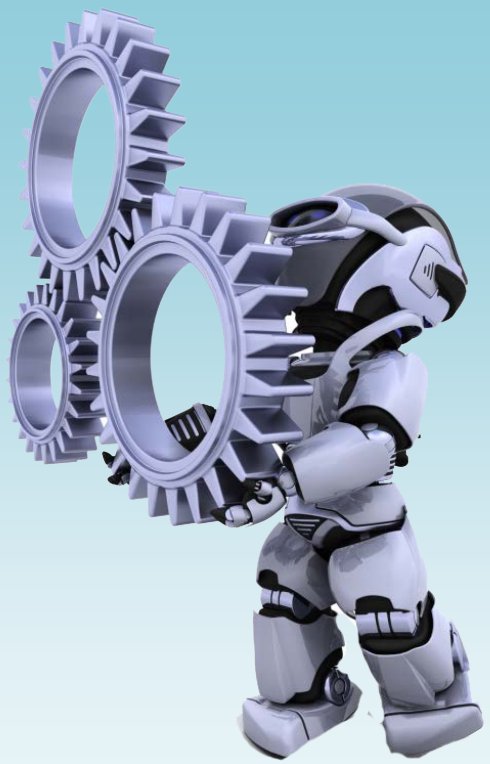
Government Engineering College, Modasa

Newsletter

June 2019

MECHANICAL ENGINEERING DEPARTMENT



ABOUT THE INSTITUTE

Government Engineering College, Modasa was established in 1984 under the Directorate of Technical Education, Gujarat State, Gandhinagar in North Gujarat region with a view to spread out technical education in the region and hence promote industrial development. The institute was affiliated with Hemchandracharya North Gujarat University (HNGU), Patan from 1984 to 2007. The institute is affiliated to Gujarat Technological University, Ahmedabad from 2008.It is recognized by All India Council for Technical Education (AICTE), New Delhi.

The institute was started with two undergraduate courses, with an intake of 60 each. At present it runs seven under graduate courses and two post graduate courses. Each department has well established laboratories, computer centers and well qualified staff.

VISION AND MISSION

VISION OF THE INSTITUTE

To be a Leading Institution on Ensuring Academic Excellence, Research, Nurturing Innovation and Entrepreneurial Attitude to produce competent technocrats for service to Nation.

MISSION OF THE INSTITUTE

- To be a student centric institute imbibing experimental, innovative and lifelong learning skills, addressing societal problems.
- To create a conductive ecosystem for research, innovation and extension services.
- To inculcate entrepreneurial attitude and values amongst learners.
- To collaborate with Industries and other institutions to strengthen symbiotic relations.
- To mentor aspiring Institutions to unleash their potential, towards nation building.

MECHANICAL ENGINEERING DEPARTMENT

Mechanical Engineering Department was established since inception of the institute and is considered as one of the concrete pillars of Government Engineering College, Modasa. The department offers Bachelor of Engineering in Mechanical with an intake capacity of 120 students. The department has highly qualified faculty members and all the laboratories are equipped with latest technology equipments/instruments. The department provides teaching in the area of thermodynamics, fluid mechanics, fluid power engineering, heat transfer, refrigeration and air conditioning, design and dynamics of mechanical systems etc. Department of mechanical engineering has a vision to prepare determined, innovative, inventive, self esteemed and goal oriented mechanical engineers with good technical knowledge, proper analytical and communication skill.

Department of Mechanical and Automobile Engineering emphasize on developing technical skills and creating awareness about needs of industries through industry institute interaction, technical seminars, workshops and technical training etc. Students are encouraged to think innovatively through project works related to mechanical engineering by providing all kind of support for overall personality development.

VISION AND MISSION OF THE DEPARTMENT

VISION

Build a strong teaching-learning and research environment to prepare determined, innovative, inventive, self-esteemed and goal oriented mechanical engineers with good technical knowledge, analytical and soft skill.

MISSION

To equip mechanical engineering graduates to face challenges of industries, society and nation by

- **Providing domain knowledge through qualified, experienced and trained faculties in healthy environment.**
- **Developing technical skills and creating awareness about needs of industries by encouraging entrepreneurial attitude.**
- **Encouraging graduates to think innovatively through project works with professional ethical practices.**
- **Providing all kinds of support for overall personality development.**

MECHANICAL WORKSHOP

Mechanical Workshop building strengthens the department to achieve its vision and missions. This building has many facilities where students can apply their cognitive skills and develop new skills. Mechanical workshop has facilities like Lathes, milling machine, drilling machines, shaper machines etc upon which students in team performs various machining processes. Workshop building envelopes some advance technology like CNC machine, advance turning machines, computerized engine test setup etc. Overall, Mechanical workshop pumps the enthusiasm in the student's hearts and provides a platform for their development.

FACULTY AND STAFF

SR NO	FACULTY NAME	DESIGNATION	QUALIFICATION
1	Dr. U. V. Shah	Associate Professor & Head	Ph.D.
2	Prof. N. V. Bora	Associate Professor	M.E.
3	Dr. M. I. Vyas	Associate Professor	Ph.D.
4	Prof. S. P. Patel	Associate Professor	M.E
5	Dr. B. C. Khatri	Associate Professor	Ph.D.
6	Prof. K. P. Prajapati	Assistant Professor	M.E.
7	Prof. R. B. Shah	Assistant Professor	M. Tech.
8	Prof. J. M. Joshi	Assistant Professor	M.E.
9	Prof. M. J. Vanajara	Assistant Professor	M.E.
10	Prof. P. R. Parekh	Assistant Professor	M. Tech.
11	Prof. P. R. Panchal	Assistant Professor	M.E.
12	Prof. K. S. Banker	Assistant Professor	M.E
13	Prof. P. K. Gajjar	Assistant Professor	M.E
14	Prof. P. M. Mistri	Assistant Professor	M.E.
15	Prof. H. R. Prajapati	Assistant Professor	M.E.
16	Prof. M. G. Patel	Assistant Professor	Ph. D.
17	Prof. H. I. Chaudhari	Assistant Professor	M. Tech.
18	Prof. J. C. Gamit	Assistant Professor	M.E.
19	Prof. Y. M. Bhoya	Assistant Professor	M.E.
20	Prof. R. B. Gadhavi	Assistant Professor	M.E.
21	Prof. R. N. Bodar	Assistant Professor	B.E.
22	Prof. A. R. Patel	Assistant Professor	B.E.
23	Prof. S. A. Bhatia	Assistant Professor	B.E.
24	Prof. J. R. Bhavsar	Assistant Professor	B.E.
25	Prof. D. N. Patel	Assistant Professor	B.E.
26	Prof. S. L. Ganchi	Assistant Professor	M.E.
27	Mr. V. A. Bhavsar	Instructor Turner	M.E.
28	Mr. I. R. Kalasva	Instructor Fitter	
29	Mr. A. A. Patel	Instructor	
30	Mrs. Y. A. Kazi	Lab Assistant	
31	Mr. H. M. Vankar	Lab Assistant	
32	Mr. N. N. Solanki	Hamal	

LABORATORIES

Fluid Mechanics and Fluid Power Engineering Lab:

This laboratory is equipped with all modern turbo machines and fundamental test set up like pumps, fans, Pelton wheel turbine test set up, Francis turbine test rig, Centrifugal pump test rig, Reciprocating pump test rig, test set up for impact etc. These equipment's provide a detailed knowledge to the students to understand various fluid properties.

Refrigeration and Air Conditioning Lab:

This laboratory houses the vapor compression refrigeration system, air conditioning, heat pump setup, refrigerator to determine the most crucial performance parameters of RAC devices. This lab plays a very important role to understand various refrigeration cycles used in domestic as well as Industrial purpose.

CAD/CAM Lab:

This laboratory emphasizes on computer aided design and manufacturing, quality control and measurement too. It also provides various activities in nonconventional manufacturing, flexible manufacturing system and automation. This lab is equipped with CNC turning centre, 5 axis robot and other equipment's required as per syllabus.

Workshop and Machine Shop Lab:

Workshop has various facilities like Machine shop, Carpentry shop, Fitting shop, Welding shop, Smithy shop, Pluming shop, Foundry shop etc. to cater to hands on experience for the students. For manufacturing process, this workshop has a more no. of lathe machine, drilling machine, shaper machine, shearing machine etc.

LABORATORIES

Internal Combustion Engine Lab:

This laboratory is equipped with modern instruments like modern internal combustion engine test rig, diesel smoke meter, variable compression ratio engine test rig, five gas exhaust gas analyzers etc. In this lab, performance optimization of engine parameters like power, fuel consumption and emissions etc are being taught to the students.

Kinematics and Dynamics of machines Lab:

Students are greatly benefited by studying the demonstration of the Slider Crank Mechanism, Cam Follower Mechanism, Different Gears and Gear train Mechanism etc.

Automobile Engineering Lab:

This lab is facilitated by demonstrative instruments like disc brake model, multiple clutch model, cut section of carburetor, Diesel jeep of Mahindra & Mahindra, computerized wheel balancer, garage instruments, cut section of steering mechanism etc.

Automobile Workshop:

Automobile workshop has hands on experimental setup like machine shop, vehicle maintenance facility, wheel alignment checking and vehicle air condition recovery and recharging facility. Various maintenance procedures of different vehicle components, automobile garage practice skill etc are demonstrated to the students.

DEPARTMENTAL ACTIVITIES

ORIENTATION PROGRAM

The orientation of newly admitted first year students was held on 19 July, 2018 in Mechanical Engineering department. The students were given information about the working of the college and University. They were taken around the college campus and made aware of locations of different departments and the laboratories in these departments. A booklet with details of the college, courses offered, intake, activities and annual report of the college was circulated to all the students.

INDUSTRIAL VISIT

The students of Mechanical branch visited nearby local areas of Modasa and various industries. This was done to make them aware about their responsibilities towards the society in general and their profession in particular.

TECHNOTHON-2019

The institute organized a technical event Technothon -19 on 10 April, 2019. The intention behind this event was to explore the projects made in way of model/prototype and poster presentation by the students. The final year and non-final year students showcased their projects. It was compulsory for the students of final year to demonstrate their work. For the evaluation of the projects, 2-3 experts were invited in branch. The 1, 2 and 3 winner projects in the final year and non- final year were awarded prize money of Rs.2000, Rs. 1500 and Rs. 1000 respectively.

Modification of air-conditioner

In Mechanical department, totally 34 project groups in the final year and 5 in the non-final year demonstrated their projects. With a view to promote research, innovation and entrepreneurship, Education Department, Government of Gujarat has implemented a Student Startup and Innovation Policy (SSIP). In this regard, the institute has received a grant of Rs. 20 lakhs. An amount of Rs. 1,79,000/- has been sanctioned for a project of Modification of air-conditioner.

PLACEMENT

Sr. No.	Name of student	Company
1	Ankit Prajapati	Indian Railway

Faculties Pursuing Ph.D.

Sr. No.	Name of Faculty	Research Area	Ph.D. Pursued from University
1	**Prof. N. V. Bora, Associate Professor**	Solar Thermal	Gujarat Technological University
2	**Prof. P. M. Mistri Assistant Professor**	Thermal	Indus University
3	**Prof. H. R. Prajapati, Assistant Professor**	Machine Design	Ganpat University, Kherva
4	**Prof. M. G. Patel, Assistant Professor**	Thermal	Gujarat Technological University
5	**Prof. J. C. Gamit, Assistant Professor**	Thermal	SVNIT, Surat
6	**Prof. P.R. Parekh, Assistant Professor**	Manufacturing Process	Gujarat Technological University

Paper Published

Sr. No.	Name of Faculty	Title of Paper Presented/Published	Seminar/ Conference
1	**Prof. H. R. Prajapati Assistant Professor**	Evaluation of stress concentration factor for shoulder fillet on round bar under axial tension loading	American International Journal of Research in science, Technology, Engineering and Mathematics

Change in Faculty Position

Sr. No.	Name of Faculty	Designation	Date of joining/ Date of getting relieved	New recruit/ Transfer
1	**Prof. R. B. Shah**	Assistant Professor	11/12/2018	Transferred from VGEC, Chandkheda
2	**Prof. R. P. Vyasa**	Associate Professor	10/03/2019	Transferred To VGEC, Chandkheda
3	**Prof. V. J. Chauhan**	Assistant Professor	03/12/2019	Transferred To VGEC, Chandkheda
4	**Prof. S. P. Patel**	Associate Professor	10/03/2019	Transferred from VGEC, Chandkheda

ALUMNI


Computer & I.T. Dept.
Mechanical & Automobile Engg. Dept.
E.C. Dept.
Post Office
Principal Bunglow
Hostel-D
Gymkhana
Library
Mechanical Workshop
Staff Quarters
Helipad
Civil Engg. Dept.
PWD Store
Play Ground
Electrical Engg. Dept.
Workshop
To Shamlaji
Proposed Hostel
Hostel-B
Hostel-C
Hostel-A
Main Gate
Private Land
Private Land
State Highway No.-5
To Modasa