Government Engineering College, Modasa

Newsletter

June 2017

MECHANICAL ENGINEERING DEPARTMENT

Government Engineering College, Modasa

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
1	Dr. U. V. Shah	Associate Professor & Head
2	Prof. N. V. Bora	Associate Professor
3	Prof. R. P. Vyasa	Associate Professor
4	Dr. M. I. Vyas	Associate Professor
5	Dr. B. C. Khatri	Associate Professor
6	Prof. K. P. Prajapati	Assistant Professor
7	Prof. V. J. Chauhan	Assistant Professor
8	Prof. J. M. Joshi	Assistant Professor
9	Prof. M. J. Vanajara	Assistant Professor
10	Prof. P. R. Parekh	Assistant Professor
11	Prof. P. R. Panchal	Assistant Professor
12	Prof. K. S. Banker	Assistant Professor
13	Prof. P. K. Gajjar	Assistant Professor
14	Prof. P. M. Mistri	Assistant Professor
15	Prof. H. R. Prajapati	Assistant Professor
16	Prof. M. G. Patel	Assistant Professor
17	Prof. H. I. Chaudhari	Assistant Professor
18	Prof. J. C. Gamit	Assistant Professor
19	Prof. Y. M. Bhoya	Assistant Professor
20	Prof. R. B. Gadhavi	Assistant Professor
21	Prof. J. G. Patel	Assistant Professor
22	Prof. R. N. Bodar	Assistant Professor
23	Prof. A. R. Patel	Assistant Professor
24	Prof. S. A. Bhatia	Assistant Professor
25	Prof. J. R. Bhavsar	Assistant Professor
26	Prof. S. D. Soni	Assistant Professor
27	Prof. D. N. Patel	Assistant Professor
28	Prof. S. L. Ganchi	Assistant Professor
29	Mr. V. A. Bhavsar	Instructor Turner
30	Mr. I. R. Kalasva	Instructor Fitter
32	Mrs. Y. A. Kazi	Lab Assistant
33	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 AND EVENTS

ORIENTATION

The orientation of newly admitted first year students was held on 4 August, 2016 in Mechanical Engineering department. The students were made aware of the institute infrastructure, departmental facilities and 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. An industrial visit was organized for 6th semester Mechanical and Automobile Engineering students at “Kishan Cold Storage” on 2nd and 3rd February 2017.

TECHNOTHON-2017

Technothon-2017 and project expo was organized on 17th April, 2017. Collector of Aravalli district, Ms. Shalini Agarwal (IAS) was the chief guest. Deputy Collector Shri S. B. Patel was also present in the inaugural function. The expo provided a platform to students of all departments to showcase their innovative ideas in the form of projects and posters. Models were made by the final year students according to their project groups. All groups also made posters to give a brief about their project. In all, 265 projects were showcased in the event. The event was also open for non final year students. The first three winners of each department were given cash prize with certificates.

Leaning Suspension System

One Wheel Bike

VILLAGE VISIT

As part of GTU bridge course activity, a village visit was arranged for the first-year students to participate in toilet construction under the Swachh Bharat Mission Program, Government of India. This was a collaborative program of Rural Development Department (DRDA) of Gujarat and Government Engineering College, Modasa. DRDA, Aravalli district and G.E.C. Modasa organized a pre-visit co-ordination program at the institute which was addressed by District Development Officer (DDO), Shri Vishal Gupta (IAS) and Director, DRDA.

An MCQ test and drawing competition based on the village visit was organized on Engineer's Day 15th September, 2016 for these students. Certificates and Trophies were awarded to the winners by DRDA on Gandhi Jayanti at Town Hall, Modasa

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. R. P. Vyasa Associate Professor	Design	Gujarat Technological University
3	Prof. U. V. Shah Associate Professor	Design	Gujarat Technological University
4	Prof. P. M. Mistri Assistant Professor	Thermal	Indus University
5	Prof. H. R. Prajapati Assistant Professor	Machine Design	Ganpat University, Kherva
7	Prof. J. C. Gamit Assistant Professor	Thermal	SVNIT, Surat
9	Prof. K. S. Banker Assistant Professor	Manufacturing	C. U. Shah University

EXPERT LECTURES DELIVERED BY FACULTY

Sr. No.	Name of faculty & Designation	Title of lecture	Venue	Date
1	**Dr. M. I. Vyas** **Associate Professor**	Application of optimization techniques in Engineering for Research	GEC MODASA	9/JAN/17
2	**Prof. H. R. Prajapati** **Assistant Professor**	Mechanical Vibrations	Grow More Faculty of Engineering	11/FEB/17

PAPERS PRESENTED /PUBLISHED

Sr. No.	Name of Faculty	Title of Paper Presented/Published	Seminar/ Conference
1	**Prof. R. P. Vyasa** **Associate Professor**	Investigation and thermal analysis of friction stir welding process parameters of AA6061 plates	International Mechanical Engineering Congress and Exposition, IMECE2016, Phoenix, Arizona (USA) (NOV 2016)

TRAINING ATTENDED BY FACULTY

Sr. No.	Name of faculty & Designation	Title of training	From	To	Venue
1	Prof. V. J. Chauhan Assistant Professor	CATIA for Mechanical and Applied Engineering	-	1 Week	NITTTR Bhopal
2	Prof. V. J. Chauhan Assistant Professor	Modelling, Analysis and Automation in Engineering	-	2 Week	LDCE Ahmedabad
3	Prof. N. V. Bora Associate Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
4	Prof. V. J. Chauhan Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
5	Prof. K. P. Prajapati Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
6	Prof. J. M. Joshi Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
7	Prof. P. R. Panchal Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
8	Prof. K. S. Banker Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
9	Prof. P. K. Gajjar Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
10	Prof. P. M. Mistri Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA
11	Prof. H. R. Prajapati Assistant Professor	Application of optimization techniques in Engineering for Research	2/JAN/17	13/JAN/17	GEC MODASA

Change in Faculty Position

Sr. No.	Name of Faculty	Designation	Date of joining/ Date of getting relieved	New recruit/ Transfer
1	**Prof. K. S. Banker**	Assistant Professor	10/O6/2016	New Recruit
2	**Prof. P. R. Panchal**	Assistant Professor	10/06/2016	New Recruit
3	**Prof. H. R. Prajapati**	Assistant Professor	14/06/2016	New Recruit
4	**Prof. P. R. Parekh**	Assistant Professor	14/06/2016	New Recruit
5	**Prof. H. I. Chaudhari**	Assistant Professor	21/06/2016	New Recruit
6	**Prof. M. G. Patel**	Assistant Professor	21/06/2016	New Recruit
7	**Prof. Y. M. Bhoya**	Assistant Professor	27/06/2016	New Recruit
8	**Prof. P. M. Mistri**	Assistant Professor	01/07/2016	New Recruit
9	**Prof. P. K. Gajjar**	Assistant Professor	07/07/2016	New Recruit
10	**Prof. J. C. Gamit**	Assistant Professor	16/07/2016	New Recruit
11	**Prof. K. A. Patel**	Assistant Professor	20/05/2016	Transfer to LDCE Ahmedabad


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