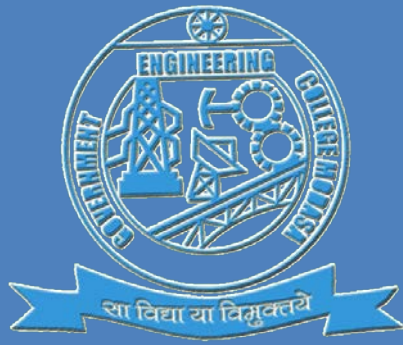


Government Engineering College, Modasa



Newsletter

June 2018

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 undergraduate 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 imbuing experimental, innovative and lifelong learning skills, addressing societal problems.
- To create a conducive 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. R. N. Bodar	Assistant Professor
22	Prof. A. R. Patel	Assistant Professor
23	Prof. S. A. Bhatia	Assistant Professor
24	Prof. J. R. Bhavsar	Assistant Professor
25	Prof. D. N. Patel	Assistant Professor
26	Prof. S. L. Ganchi	Assistant Professor
27	Mr. V. A. Bhavsar	Instructor Turner
28	Mr. I. R. Kalasva	Instructor Fitter
29	Mr. A. A. Patel	Instructor
30	Mr. K. M. Prajapati	Draftsman
31	Mrs. Y. A. Kazi	Lab Assistant
32	Mr. H. M. Vankar	Lab Assistant
33	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, Plumbing 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 PROGRAM



The orientation of newly admitted first year students was held on 3 Aug, 2017 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. 39 students have taken vocational industrial training during their vacation in different industries across Gujarat.

TECHNOTHON-2018

The institute organized a technical event Technothon -2K18 on 13 April, 2018. 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 1st, 2nd and 3rd winner projects in the final year and non- final year were awarded prize money of Rs.2000, Rs. 1000 and Rs. 500 respectively.



Design of coconut peeling machine



Frictionless magnetic brake

STUDENT ACHIEVEMENTS

Following of students of 8th semester qualified in GATE 2018 Examination

Sr. No.	Name of student	GATE Marks	GATE Score	AIR
1	Valand Harshkumar	69.35	718	2620
2	Chauhan Karan	62.55	644	5367
3	Patel Zeel	45.74	467	16909
4	Maheshwari Arvindkumar	43.76	446	18730
5	Chauhan Prashantkumar	43.76	446	18730
6	Thakkar Mihir	37.50	380	25705
7	Suthar Abhishek	35.19	355	28414

The following are the students who have secured ranks in various technical events

Sr. No.	Name of student	Semester	Event & Venue	Rank
1	Prajapati Ankit	6 th	Placement Guru, National level Technical symposium, Nirma University	2 nd
2	Rana Viral	6 th	Pipe Tycoon, National level Technical symposium, Nirma University	2 nd
3	Ronal Gothi Nishad Joshi	6 th	Hydromania-Hydraulic locomotive making competition National level technical event Footprints Xi, M. S. University	1 st
4	Urvashi Damor Joshi Nishad	6 th	Hydraulic Arm Event of GTU Techfest (ZONAL) held at GIT College, Gandhinagar	2 nd

PLACEMENT

Sr. No.	Name of student	Company
1	Vishnukumar Chauhan	ESC Works Private Ltd. Motera, Ahmedabad
2	Khanusiya Kamiyabali	ESC Works Private Ltd. Motera, Ahmedabad
3	Jaykumar Patel	Monarch Innovation Pvt. Ltd. Motera, Ahmedabad
4	Sagarkumar Panchal	Home First Fianance Company, Ahmedabad
5	Hetang Darji	V TechMakkers Pvt. Ltd., Dhansura
6	Vijpura Kasimali	V TechMakkers Pvt. Ltd., Dhansura
7	Yashkumar Sankhala	V TechMakkers Pvt. Ltd., Dhansura

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
6	Prof. M. G. Patel Assistant Professor	Thermal	Gujarat Technological University
7	Prof. J. C. Gamit Assistant Professor	Thermal	SVNIT, Surat
8	Prof. M. J. Vanzara Assistant Professor	Thermal	IIT, Roorkee
9	Prof. K. S. Banker Assistant Professor	Manufacturing	C. U. Shah University

TRAINING ATTENDED BY FACULTY

Sr. No.	Name of faculty & Designation	Title of training	From	To	Venue
1	Prof. V. J. Chauhan Assistant Professor	Structural Design Using ANSYS	26/JUN/17	30/JUN/17	NITTTTR Bhopal
2	Prof. K. S. Banker Assistant Professor	Induction Phase-II	23/OCT/17	3/NOV/17	NITTTTR Bhopal
3	Prof. H. I. Chaudhari Assistant Professor	Induction Phase-I	12/JUN/17	23/JUN/17	NITTTTR Bhopal
4	Prof. H. R. Prajapati Assistant Professor	Recent Trends in Material Processing and Characterization	12/MAR/18	16/MAR/18	IITRAM Ahmedabad
5	Prof. K. S. Banker Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
6	Prof. Y. M. Bhoja Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
7	Prof. P. M. Mistri Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
8	Prof. M. G. Patel Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
9	Prof. J. C. Gamit Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
10	Prof. P. R. Parekh Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
11	Prof. H. I. Chaudhari Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
12	Prof. P. R. Panchal Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP
13	Prof. P. K. Gajjar Assistant Professor	Emerging Trends in major thrust areas of Mechanical Engineering	26/FEB/18	9/MAR/18	VC-STTP

EXPERT LECTURES DELIVERED BY FACULTY

Sr. No.	Name of faculty & Designation	Title of lecture	Venue	Number of beneficiaries	Date
1	Dr. M. I. Vyas Associate Professor	Boiling heat transfer and two-phase flow inside the mini and micro channel	GEC MODASA	170	6/MAR/18
2	Prof. V. J. Chauhan Assistant Professor	Incompressible fluid flow and flow measuring devices	Grow More Faculty of Engineering	40	24/FEB/18
3	Prof. H. R. Prajapati Assistant Professor	Dynamic of Machinery	Grow More Faculty of Engineering	55	24/FEB/18
4	Prof. K. S. Banker Assistant Professor	Fundamentals and Programming of NC/CNC Machines	Grow More Faculty of Engineering	50	11/SEP/17

PAPERS PRESENTED /PUBLISHED

Sr. No.	Name of Faculty	Title of Paper Presented/Published	Seminar/ Conference	SSN/ ISBN No.
1	Prof. U. V. Shah Associate Professor	Optimization of hydraulic cylinder design used for container lifting device using genetic algorithm	International Journal of Engineering and Techniques Volume -4 Issue -1 Year Feb-2018	2395-1303

BOOKS PUBLISHED

Sr. No.	Name of faculty	Designation	Title of BOOK	Publication	ISBN No.
1	Prof. U. V. Shah	Associate Professor	Computer Aided Design	BOOKS INDIA	978-93-80867-24-3
2	Prof. U. V. Shah	Associate Professor	Machine Design and Industrial Drafting	BOOKS INDIA	978-93-80867-73-1

SEMINAR ORGANIZED

In Mechanical Engineering department a seminar was organized on **“Building Automation Specialist and HVAC Technology”** on 19 February, 2018 by Softcon India Pvt. Ltd for 6th and 8th semester students.

FACULTY ACHIEVEMENT

Prof. M. I. Vyas, Associate Professor in Mechanical Engineering, completed his Ph.D. from SVNIT, Surat on **“Some studies on single phase and two-phase flow boiling heat transfer in mini-micro channels”**.

Change in Faculty Position

Sr. No.	Name of Faculty	Designation	Date of joining/ Date of getting relieved	New recruit/ Transfer
1	Shri. A. A. Patel	Instructor	17/Oct/2017	New Recruit

