

Mech at a Glance

(E-NEWS LETTER)

HALF YEARLY MAGAZINE

JANUARY- JUNE 2020

MECHANICAL ENGINEERING DEPARTMENT
GOVERNMENT ENGINEERING COLLEGE PALANPUR



Government of Gujarat

GOVERNMENT ENGINEERING COLLEGE PALANPUR

JAGANA, PALANPUR-AHMEDBAD HIGHWAY, PALANPUR - 385011, GUJARAT, INDIA

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Index

1. Vision and Mission of Institute and Department
2. From the Desk of Head of the Department
3. Faculties of Department
4. Innovative Practice in Teaching-learning/Assessment Process
5. Training attended by Student
6. Result Analysis
7. Topper of Summer 2019 GTU Exam (Even Semester)
8. Research Publications
9. Departmental activities
10. Student Projects
11. Achievements

Editorial Board

Prof. A B Patel,
Prof. A D Patel,
Prof. N T Raval,

Contact us

Mechanical Engineering Department
Government Engineering College, Palanpur
Jagana, Palanpur-Ahmedabad highway,
Palanpur – 385011,
Gujarat, India

Vision and Mission of Institute

VISION

" To be a leading technical institute facilitating transformation of human resources into socially responsible engineering professionals for sustainable development "

MISSION

- (1) To achieve academic excellence by developing state-of-the-art laboratories and academic infrastructure.
- (2) To create an ecosystem that promote value based technical education, innovation and entrepreneurship for sustainable development.
- (3) To contribute to industry and society by providing technical and consultancy services.
- (4) To enhance technical competencies of human resources by providing need base trainings and quality improvement programs.

Vision and Mission of Department

VISION

"To produce competent mechanical engineers to fulfil needs of society for sustainable development"

MISSION

- (1) To impart quality technical education in Mechanical Engineering with professional skills.
- (2) To develop linkages with industry for exposure about real life problems and its feasible solution.
- (3) To promote lifelong learning, Innovation and entrepreneurship for sustainable development.
- (4) To assimilate social, cultural and ethical values for betterment of society.

From the Desk of Head of the Department

Presently, a knowledge explosion is being used ushered in our midst especially in Engineering and technology. We are working with a vision of India 2020, to bring progressive changes in Science, Technology and Engineering, which will bring progress in mechanical engineering and prosperity to our country.

The joy and experience shared on our campus ensure the growth and development of the overall personality of all the students alike. I have witnessed the continuous evolution of our department, especially through these challenging times. This fall, courses will be delivered in both in-class and online instruction formats to maintain our nationally recognized hands-on student experience, while taking the necessary measures to create a safe environment for our students, faculty and staff.

Continue reading below for more on our latest achievements and exciting developments that our faculty, staff and students have been working on through the summer and last semester. I hope you find the newsletter an explanatory and fascinating read.



Faculties of Department (As on June 2020)

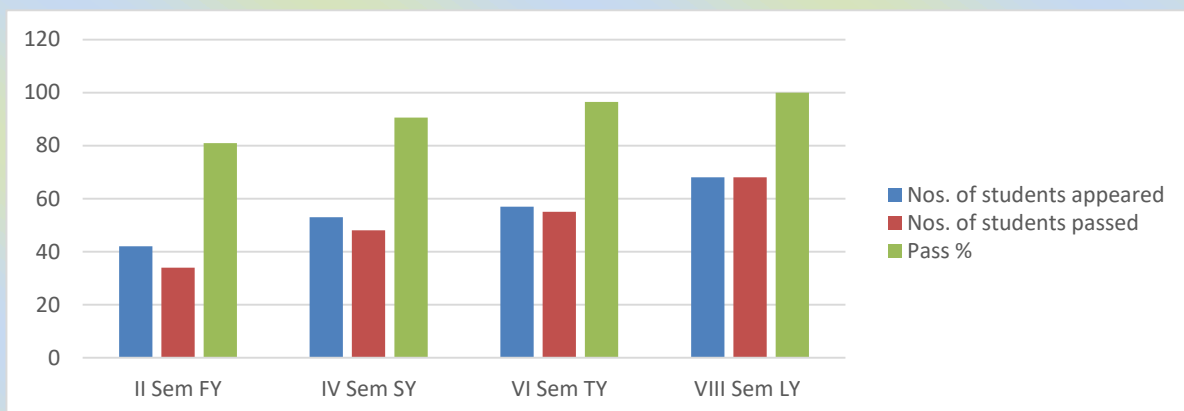
Sr. No.	Name of Faculty	Designation	Area of Work	Teaching Experience (Years)
1	Prof. (Dr.) K B Judal	Principal & Professor	Computer aided Design and Manufacturing Unconventional Manufacturing Process	19.5
2	Prof. (Dr.) J A Vadher	Professor & Head	Production, Industrial, Automation	22
3	Prof. A B Patel	Assistant Professor	Thermal Engineering	18.5
4	Prof. V.D.Patel	Assistant Professor	Thermal Science	18.5
5	Prof. N. A. PATEL	Assistant Professor	CAD/CAM	15.5
6	Prof. A. D. PATEL	Assistant Professor	Machine Design	16.5
7	Prof. A. R. Chaudhari	Assistant Professor	Machine Design	12.5
8	Prof. P. N. BOKA	Assistant Professor	Design Engineering	14.5
9	Prof. A.K.Patel	Assistant Professor	Advance Manufacturing Techniques	12.5
10	Prof. N.T.Raval	Assistant Professor	CAD/CAM	6.5

Innovative Practice in Teaching-learning/Assessment Process

Sr. No.	Methodology	Related Subject	Class	Name Of Staff
1	<p>"In Renewable Energy Engineering (REE) Course, Quiz was taken by using Google Glass Room. Student have submitted Assignment through the e-mail. In Renewable Energy Engineering (REE) Course, Different topic for Presentation was selected by student and presented in the classroom amongst their peer.</p> <p>Video lecture available from NPTEL related to Renewable Energy Engineering (REE) Course is used for teaching-learning process.</p>	Renewable Energy Engineering (REE)	8 th sem	Prof.A.B.Patel
2	In Basic Mechanical Engineering (BME) Course, Quiz was taken by using Google Glass Room."	Basic Mechanical Engineering (BME)	2 nd sem	Prof.A.B.Patel

Result Analysis

Winter - 2017		Nos. of students appeared	Nos. of students passed	Pass %
FY	II Sem	42	34	80.95
SY	IV Sem	53	48	90.57
TY	VI Sem	57	55	96.49
LY	VIII Sem	68	68	100



Topper of summer 2020 GTU Exam

2nd Semester

Sr. No	Enrollment No	Name	SPI
1	190610119047	PRAJAPATI RAJESHKUMAR VIRABHAI	8.59
2	190610119040	PATEL MITANSHU MAHESHKUMAR	8.18
3	190610119050	RAVAL KULDEEP NAILESHKUMAR	8.14

4th Semester

Sr. No	Enrollment No	Name	SPI
1	180610119050	PRAJAPATI RUTVIK SURESHBHAI	8.61
2	180610119056	SINGH ROHANKUMAR AJAYKUMAR	8.57
3	180610119037	PATEL DHARMIK DHARMENDRABHAI	8.57

6th Semester

Sr. No	Enrollment No	Name	SPI
1	170610119053	RUPESH KUMAR SINGH	9.24
2	170610119014	HASHMI MOH HARIS RIYAZ ASLAM	9.24
3	170610119063	YADAV RAHULKUMAR SHIVMURAT	9.09

8th Semester

Sr. No	Enrollment No	Name	SPI
1	160610119012	GURJAR SAMAYKUMAR RAGNATHBHAI	10.00
2	160610119020	MALI BHAVIN RAMESHBHAI	10.00
3	170613119013	PRAJAPATI NIRAVBHAI PRAVINBHAI	10.00

Faculty/staff training/seminar/conferences attended

Sr. No	Name of Faculty	Training	Name of Institute/Organizer	Duration	
				From	To
1	Prof.V.D.Patel	MATLAB BASED TEACHING-LEARNING IN MATHEMATICS,SCIENCE & ENGINEERING	RAMRAO ADIK INSTITUTE OF TECHNOLOGY NAVI MUMBAI	18-05-2020	22-05-2020
2	Prof.V.D.Patel	ADVANCEMENT IN PHASE CHANGE MATERIAL BASED THERMAL AND RENEWABLE ENERGY TECHNIQUES	LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING, ANDHRA PRADESH	01-06-2020	05-06-2020
3	Prof.A.D.Patel	BEYOND THE CLASSROOM TOWARDS EXCELLENCE	IITE, Gandhinagar	17-01-2020	23-01-2020
4	Prof.A.D.Patel	ACADEMIC RESEARCH PAPER WRITING	NITTTR, Ext. Centre, Ahmedabad	09-03-2020	13-03-2020
5	Prof.A.D.Patel	INCULCATING UNIVERSAL HUMAN VALUES IN TECHNICAL EDUCATION	"AICTE (online)"	26-04-2020	30-04-2020
6	Prof.A.D.Patel	WORK ETHICS MOTIVATIONAL CLIMATE AND ATTITUDE DEVELOPMENT	NITTTR, Bhopal	01-06-2020	05-06-2020

Research Publications

International Conference publications:

1. Samir K. Raval and K.B. Judal (2020) "Recent Advances in Dissimilar Friction Stir Welding of Aluminum to magnesium alloys", Materials Today: Proceedings, Issue 22(4), pp 2665–2675, Publisher: Elsevier.

Department Activities

Industrial Visit

Sr. No.	Name of Industry	Day	Semester
1	AutoResQ is automobile service station	3rd March	8th Semester



Expert Lecture

1. The Mechanical Engineering Department had organized expert session on 02/01/2020 which was delivered by technical expert from Sai CAD, Patan. He delivered a session on “Fusion 360” to the students of Third and Final year.

The highlights of his expert lecture were

- Modeling Capability of Fusion 360
- Assembly - Fusion 360
- FEM by using Fusion 360

Almost 60 students from Mechanical department had got benefited from the same. The session was quite informative. The lecture will surely help to students strengthening their technical skills. We are very much thankful to Team Sai CAD for expand our student’s skills and knowledge on Fusion 360.

2. The Mechanical Engineering Department had organized expert session on 20/02/2020 and 21/02/2020 which was delivered by technical expert Mr. Hareshbhai. He delivered a session on “Hand on practice of RAC equipment’s and various Processes” to the students of Third year.



Student Projects

Sr. No.	Project Title	Name of Guide
1	AUTOMATED WASTE STORAGE AND TRANSPORTATION SYSTEM FOR WASTE DISPOSAL	Prof. N A Patel
2	OPTIMIZATION OF PLASMA ARC CUTTING PROCESS ON MS-2062 USING OF TAGUCHI METHOD	Prof. N T Raval
3	ENERGY AUDIT IN AMP FORGING	Prof. N A Patel
4	DEVELOPMENT OF SOLAR ENERGY STORAGE UNIT WITH PARAFFIN WAX AS A PHASE CHANGE MATERIAL.	Prof. V D Patel
5	MANUFACTURING OF CENTRIFUGAL CASTING MACHINE TO ENHANCE THE MECHANICAL PROPERTIES	Prof. A K Patel
6	FABRICATION OF CHOPPER MACHINE	Prof. A D Patel
7	DEVELOPMENT OF INNOVATIVE MANUFACTURING SYSTEM FOR CURVED SURFACES.	Prof. A R Chaudhari
8	DESIGN OF OIL EXPELLER PRESS WITH STRUCTURAL ANALYSIS OF SCREW	Prof. N T Raval
9	ROUGH TERRAIN ROBOT USING ROCKER BOGIE	Prof. P N Boka
10	DEVELOPMENT OF HANDY GROOVE CUTTER FOR MORE THAN 5MM THICK PLATES OF STRUCTURAL MATERIALS	Prof. A D Patel
11	CHAINLESS BICYCLE	Prof. P N Boka
12	MANUFACTURING OF VERTICAL CENTRIFUGAL CASTING MACHINE WITH OPTIMUM DESIGN	Prof. A K Patel
13	PHYSICAL METALLURGICAL ANALYSIS OF ALUMINIUM SILICONE ALLOYS	Prof. A K Patel
14	DEVELOPMENT OF DOUBLE PASSED BAFFLED SOLAR DRYER FOR COTTON SEED DRYING	Prof. V D Patel

Sr. No.	Project Title	Name of Guide
15	IMPROVEMENT AND PERFORMANCE TESTING OF AVAILABLE ELECTROCHEMICAL MACHINE	Prof. A R Chaudhari
16	PERFORMANCE IMPROVEMENT AND INVESTIGATION OF MAGNETIC ABRASIVE FINISHING PROCESS.	Prof. A R Chaudhari
17	INNOVATIVE TREE CAGE DESIGN - A NOVEL APPROACH	Prof. A D Patel
18	POWER GENERATION USING SPEED BREAKERS	Prof. P N Boka
19	DEVELOPMENT OF ECO-FRIENDLY TOURISM VEHICLE USING FLYWHEEL	Prof. N T Raval
20	DESIGN OF CENTRIFUGAL CASTING MACHINE TO ENHANCE THE MECHANICAL PROPERTIES	Prof. A K Patel

Student Achievements

Sr. No.	Enrollment Number	Name of Student	Name of Event	Place	Date	Outcome
1	170610119036	PATEL MITUL	TECHXETRA (JUNK-YARD)	HANSABA COLLEGE OF ENGINEERING (GGU) SIDDHPUR	17TH – 18TH FEB 2020	2ND RANK