



# VISHWAKARMA GOVERNMENT ENGINEERING COLLEGE MECHANICAL ENGINEERING DEPARTMENT

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## Principal



**Dr. R.K. Gajjar**

**Dear Students & Faculty Members,**

It is a matter of great pride and satisfaction for VGEC to bring out the first issue of e-News Letter, Jan-Dec 2018 released from the Department of Mechanical Engineering. The College has made tremendous progress in all areas academic, non-academic, capacity building relevant to staff and students. I am confident that this issue of Department News Letter will send a positive signal to the staff, students and the persons who are interested in the Technical education and Technology based activities. A News Letter is like a mirror which reflects the clear picture of all the activities undertaken by a Department and develops writing skills among students in particular and teaching faculty in general. I express my deep sense of gratitude to HOD/Mech under whose guidance this technical work has been undertaken and completed. Also my heartfelt congratulations to staff members and students for their fruitful effort.

## Head of Department



**Dr. A.B. Dhruv**

**Dear Students & Faculty Members,**

Welcome to the first e-Newsletter of Mechanical Engineering Department. This newsletter gives me opportunity to represent the year around efforts of my faculty members and my dear students for achieving the vision and mission of the Institute and the Department. I extend my sincere thanks to one and all who have contributed to make all the events successful that department has organized throughout the year. In this year department has also arranged various expert lectures and industrial visits for the students. Through this newsletter I acknowledge the achievers of the department. This inaugural issue is a brief account of the important events held during the year. It is expected that wide support for this will be provided by the reader, giving valuable suggestions and comments. This maiden issue of e-Newsletter should inspire all of us for a new beginning.

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## Newsletter Committee

**Dr. A B Dhruv (Advisor)**  
**Prof. P B Patel (Advisor)**  
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## 1. Vision, Mission and PEOs of the department

- ❖ **Vision** To create an excellent environment for quality based education in the field of Mechanical Engineering for preparing socially responsible technocrats and entrepreneurs.
  
- ❖ **Mission**
  1. Impart quality education and enhance the creative and innovative skills to nurture globally acceptable mechanical engineer.
  2. Provide state-of-the-art laboratories and teaching-learning environment through qualified faculties.
  3. Develop linkages with Industry for excellence in research and consultancy services.
  4. Encourage life-long learning, ethical values and entrepreneurship culture for industrial and societal needs.
  
- ❖ **Program Educational Objectives (PEOs)**
  1. Apply core subject knowledge to various challenging problems.
  2. Adopt technical skills and leadership capability to explore the problems and present the solutions with professional ethics.
  3. Plan and manage the production of components as per needs of the society.
  4. Utilize engineering software and experimental capabilities to pursue research, higher education and entrepreneurship.

## 2. IEI (Institute of Engineers (India) Students' Chapter:

IEI (Institute of Engineers (India) Students' Chapter was introduced for students in 2016. Under this chapter department has organized various activities as below,

- All India Seminar on “Additive Manufacturing”
- Two day workshop on “Disaster Management”
- Industrial Visit at “Thermal Power station Wanakbori”
- One Day Workshop on “Resume Building and Resume Presentation ”

IEI is beneficial to students for dissemination and updating of engineering and technological knowledge, through Technical Activities. Total 255 students are enrolled in this chapter. Prof. K R Patel is coordinator of the chapter

## 3. Departmental Activities:

- ❖ Department filed a patent on “Design and Fabrication of Folding Bicycle”. This application has been applied to the Controller General of Patents, Design and Trade Marks. Inventor claimed on different parameters like, joint design, weight of the bicycle, size of the bicycle etc. This patent published on 7 December, 2018.

- ❖ Vishwakarma Jayanti was celebrated on 29 August, 2018 by the Department. The principal and the faculty from all the departments of the institute participated in Puja.
- ❖ Conference was organized on 16-17 February, 2018 under IEI Students' Electrical Division Chapter on the topic "Recent Trends in Renewable Energy Application & Research". Total 85 students of BE Sem-IV,VI and VIII of Mechanical Engineering Department have attended it.



Vishwakarma Jayanti Celebrations in the Department



Inaugural ceremony of conference under IEI Students' Chapter

- ❖ Department had organized Expert talk on "Industrial knowledge and Entrepreneur" on 3 August, 2018 . The speakers of the expert talk were VGECE alumni of Year 2013 batch. Mr. Dipesh Ganatra, an executive engineer in Torrent Power Limited shared his experience with the students regarding how theory helps in solving numerous problems in the industry. He guided students on different career options after engineering. Mr. Siddharth Gajera who is the co-founder of Cube in E-manufacturing solutions has shared his journey from a professional trainer to an entrepreneur. He gave information on how to start and establish own start-up in the competitive market. Mr. Umesh Mangroiya, acquainted the students with different skill development programs offered by public and private sectors which can be helpful to the students to start their own firm.



Participant of CNC Programming



Expert talk on "Industrial Knowledge and Entrepreneur"

- ❖ CNC Programming (NX CAM) in Campus Training was organized on 27-28 February, 2018 in association with JM CAD Engineering Solutions. Total 105 students of B.E. Sem- VI and VIII had participated in the training.

- ❖ Techno Quiz Competition was conducted in the department by ICE Academy on 22 February, 2018. Total 85 students of B.E. Sem IV& VI had participated.
- ❖ CII in collaboration with Panasonic arranged the demonstration program for Arc welding Technology and Robot Welding Technology on 23-24 October, 2018. Total 62 students of B.E. Sem- V and VII attended the demonstration, and acquainted with the latest development in Arc welding Technology and Robot Welding Technology.
- ❖ One-day workshop on, “Resume Building and Resume Presentation” was organized on 4 August, 2018 for B.E. Sem. VII students. This event was organized under IEI Students’ Chapter. Ms. Dipa Shah, who is a certified trainer and working as a HR Manager at Rajvi Enterprises, gave the talk to the students. The objective of this talk was to make students aware about how to build resume, how to prepare for group discussion and how to face the personal interview. Total 35 students attended this workshop.



Ms. Dipa Shah giving the Talk to the students



Demonstration on Arc Welding and Robot Welding

#### 4. Industrial Visit:

- ❖ An Industrial Visit of Indo German Tool Room (IGTR), Vatva, Ahmedabad was organized on 23 February, 2018. The students were given opportunity to visit the different departments like, Tool Design, CAD/CAM & CAE service, Manufacturing Moulds, Dies Jigs & Fixtures. There were total 55 students of BE Sem-VI along with Prof. R.B.Shah & Prof. M.M.Modan.
- ❖ Two Industrial Visits were organized on 17 March, 2018 for the students of B.E. Sem-IV, VI and VIII. A technical talk on the topic “Non Destructive Testing” was arranged at Variistecnica Skill Education and Research Pvt Ltd, Ahmedabad. The second visit was at Rainbow Packaging Pvt. Ltd., Changodar. Students were shown the manufacturing process of Milk packing bag for various co-operative societies in India. There were total 90 students along with Prof. R.B.Shah & Prof. D.B.Patel.
- ❖ As a part of Induction Program for the students of B.E. Sem-I, the visit of Andhjan Mandal, Ahmedabad was arranged on 3 August, 2018. A representative from the organization gave the information about how they work, how the things are managed, how the different activities are done, how they are helped financially etc. The Andhjan Mandal is running the school for blind, the diploma course in physiotherapy and the workshops for blinds. The students have visited vision in the dark place which was the thrilling experience of their life. Students have experienced how blinds live their life, how they cross the road, how they identify the things, how they watch movies with other four senses. There were total 55 students along with Prof. R.B.Shah & Prof. M.N.Parmar.



Andhajan Mandal, Vastrapur, Ahmedabad

- ❖ The visit at Akshay Patra Foundation, Bhadaj was organized on 29 September, 2018. During the visit the students were shown the working of boiler and the steam generation and the conveyor system. They have also visited the area where the food was prepared in large scale under Mid-day meal programme. Mid-day meal is a wholesome freshly-cooked lunch served to children in Government and Government-aided schools. There were total 40 students of B.E. Sem-I along with Prof. Dr. A.A.Pujara and Prof. S.B.Pipaliya.



Visit of Akshay Patra Foundation, Bhadaj

- ❖ The visit at Thermal Power Station, Wanakbori was organized on 4 October, 2018. Students were shown the actual working of the thermal power plant. Students took the visit of different sections of power plant like, Boiler Section, Turbine Section, Cooling Tower and the Coal Handling System. Students were also shown the power plant circuits to understand the complex system practically. Students also visited the Dam site of Wanakbori Hydro Power Station. There were total 52 students of B.E. Sem - VII along with Prof. R.B.Shah & Prof. M. M.Modan.



Visit of Thermal Power Station, Wanakbori

## 5. Publications of Faculty:

Name of Faculty	Publication/ journal/ Conference /Book	Title of Publication	Name of Book/ Conference / Journal	Type of Publication National/ International
Dr. A.B. Dhruv	Conference	Finite Element Analysis of Biaxial Stretch Forming of very thin sheet	2nd Int. conference in ICNFESMH 2018 on 18 February, 2018 at MCCIA, Pune	International
Dr. A.B. Dhruv	Conference	Predicting of failure using Forming limit diagram in finite Element Analysis of Aluminum Alloys	4th Int. conference ICIAME 2018 on 2-3 February, 2018 at GCET, Anand	International
Dr. A.B. Dhruv	Conference	Effect of Sheet Thickness And Grain Size on Forming Limit Diagrams of Thin Brass Sheets	First International conference on Innovation in Infrastructure	International
Dr. A.B. Dhruv and Prof S.B. Pipaliya	Conference	Study of centralized solar air cooler with air purifier	“Recent Trends In Renewable Energy Application & Research”	National
Prof. K.R.Patel	Conference	Solar energy storage in building with phase change material an overview	“Recent Trends In Renewable Energy Application & Research”	National

## 6. Students’ Achievements:

Name of Student	Description of Achievement	Name and Address of Awardee	Month and Year of Award
Nisarg Patel Sahil Patel Dhaval Mistry	Short listed at State level Mechanical Engineering CAD competition	Gujarat Skill Competition	March 2018
Bhalala Abhishek Rohit Kalsariya	Short listed at State level CNC Milling/Turning	Gujarat Skill Competition	March 2018
Mihir Chimanbhai Panchal	Participated in the national level NCC camp All India Vayu Sainik Camp(AIVSC) 2018, and the various state level camp of the AIVSC	NCC	2018
Chavda Nikunj J Nakum Dilip S	Summit-2018 event and demonstrated the project on Folding Bicycle	Government of Gujarat	Oct, 2018
Shah Aarsh R Shukla Meet P	Participated in Vibrant Gujarat Start-up		

## 7. Training Attended / Expert Lectures Delivered:

Name of Faculty	Topic	Name of the Institute	Date
Dr. A.B. Dhruv	Expert lecture on “Recent Trends in Sheet Metal Forming” in Short Term Training Program	Govt. Engg. College, Dahod	4 January, 2018
Dr.A.B.Dhruv Prof.K.R.Patel Prof.S.P.Pipaliya Prof.Sapna Solanki	Expert talk in the area of renewable energy	IEI, Gujarat State Centre Ahmedabad	16-17 February, 2018
Dr. A.B.Dhruv	Attended Faculty Development Program on Office Administration	SPIPA, Ahmedabad	23-25 May, 2018
Dr. A.B. Dhruv	Delivered an Expert Talk on “Advances in Metal Forming” & “Fundamentals and Recent	B.V.M Engineering College,	04-16 June, 2018

Name of Faculty	Topic	Name of the Institute	Date
	Trends in Micro Forming” in STTP on “Manufacturing Process Modeling & Simulation”	Vallabh Vidyanagar	
Prof R.B.Shah	Attended AICTE sponsored training on “First course on Computational Fluid Dynamics”	IIT Bombay, Mumbai	25-29 June, 2018
Shri M.N.Parmar	Attended training on “Laboratory Development”	NITTR, Bhopal	25-29 June, 2018
Prof. M.M.Modan	Induction Phase 1	NITTR, Ext. Centre Ahmedabad	30 July-10 August, 2018
Prof. S.A.Solanki	Induction Phase 1	NITTR Bhopal	17-28 September, 2018
Prof. T.Y.Rathod	Induction Phase- I	NITTR,Ext. Centre Ahmedabad	16-27 July, 2018
Dr. A.A.Pujara	Induction Phase- I	NITTR, Ext. Centre Ahmedabad	20-31 August, 2018
Prof. D.B.Patel	Attended 1-Day workshop on Rapid Prototyping – 3D Printing	PDP, Gandhinagar	December, 2018
Prof. K.R.Patel	Efficient Energy Conversion with in Harmony with Environment	IIT, Varanasi	29 October-3 November,2018
Prof. K.R.Patel	Technical Seminar and workshop on “High Precision Arc Welding Technology in India”	CII, Ahmedabad	23-24 October, 2018
Dr. A.B.Dhruv			
Prof.S.P.Pipaliya			
Prof. K.T.Dodiya			
Prof, R. K. Patel			

## 8. Faculty Achievements:

Name of Faculty	Brief Description of Achievement	Name and Address of Awardee	Month and Year of Award
Dr. A.B.Dhruv	Worked as Reviewer and session chair in International conference on Innovation in Infrastructure	IITRAM, Ahmedabad	18-19 May, 2018
Prof. K.R.Patel	Worked as evaluator of project	National innovation foundation India, Gandhinagar	17-18 August,2018
Prof. K.R.Patel	Worked as reviewer in international conference on STEM(Vibrant Gujarat)	Education Department,	December,2018

## 9. Glimpses of Activities Coordinated by Department in GTU Central Techfest-2018:



Robotics Events Coordinated by Mechanical Department in GTU Central Techfest-2018

## 10. Achievers Section



Mr. Manan Dave & Mr. Mahrshi Gohil  
With Folding Bicycle at Techfest-2018



Mr. Mihir Panchal Participant of  
National Level NCC Camp 2018

## 11.Department Faculty (As on December 2018)

Sr. No.	Name of Faculty	Designation	Highest Qualification	Teaching Experience
1	Prof. A B Dhruv	Professor	Ph.D. (Mechanical) (IITD)	24
2	Prof. D M Patel	Professor	Ph.D. (Mechanical)	18
3	Prof. P B Patel	Associate Professor	M.E. (Mechanical) (CAD/CAM)	36
4	Prof. H A Miskin	Associate professor	M.E.(CAD/CAM)	21
5	Prof. S P Patel	Associate Professor	M.E. (IC/AUTO)	22
6	Prof. R K Patel	Associate Professor	M.E. (Cryogenic)	18
7	Prof. K R Patel	Associate Professor	M.E. (IC/AUTO)	15
8	Prof. A D Brahmhatt	Assistant Professor	M.E. (IC/AUTO)	9
9	Prof. S A Pawar	Assistant Professor	M.E. (Thermal Science)	11
10	Prof. N B Patel	Assistant Professor	M.E. (Thermal Science)	18
11	Prof. V J Chauhan	Assistant Professor	M.E. (IC/AUTO)	11
12	Prof. Samruddhi Patel	Assistant Professor	M.E. (CAD/CAM)	11
13	Prof. V K Patel	Assistant Professor	M.E. (Machine Design)	12
14	Prof. M N Parmar	Assistant Professor	M.E. (IC/AUTO)	11
15	Prof. D B Patel	Assistant Professor	M.Tech. (Design Engineering)	7
16	Prof. A A Pujara	Assistant Professor	Ph.D. (Mechanical)	12
17	Prof. S B Pipaliya	Assistant Professor	M.Tech. (Thermal Engineering)	8
18	Prof. M M Modan	Assistant Professor	M.E. (CAD/CAM)	6
19	Prof. K T Dodiya	Assistant Professor	M.E. (Mechanical) (Cryogenic)	8
20	Prof T Y Rathod	Assistant Professor	M.E. (Machine Design)	12
21	Prof. S A Solanki	Assistant Professor	M.E. (Jet Propulsion and Gas Turbine Plant)	12
22	Prof. J B Dabhi	Assistant Professor	M.E. (Thermal Engineering)	7
23	Prof. V A Thakar	Assistant Professor	B.E. (Production Engineering)	11
24	Prof. J M Parmar	Assistant Professor	M.E. (Energy Engineering)	5

