

VOL. 2 ISSUE. 1  
2020  
(JAN 2020 TO JUN 2020)



**S. N. PATEL INSTITUTE OF TECHNOLOGY  
& RESEARCH CENTRE,  
UMRAKH**

Managed By Vidyabharti Trust, Umrakh-Bardoli  
(AICTE Approved & Affiliated with GTU)

**MECHANICAL  
ENGINEERING**

# INSTITUTE VISION & MISSION

## VISION

To be recognized as a peer technical and research institution by facilitating transformation of students into ethical citizens and competent technocrats to meet the growing technological and socio-economic needs.



## MISSION

- 1 To provide high quality, innovative and competitive learning experience through creative balance of academic and extracurricular programs in collaboration with other academic and research institutions as well as government bodies.
- 2 Enable students to develop skills to solve complex technological problems of current era through industry-academia interaction and mould themselves as future leaders.
- 3 To synergize the students, staff, society and industries by developing competency, employability, entrepreneurship and research skills.
- 4 To promote new ideas, research and consultancy services for industrial and societal needs.



## VISION

To be a centre of quality technical education in the field of mechanical engineering leading to competent technocrats with ethical values through state-of-the-art teaching and research methodology.



## MISSION

- 1 To impart undergraduates quality technical education along with sound technical communication skill.
- 2 To provide the quality infrastructure, tools and teaching-learning environment.
- 3 To inculcate qualities of leadership, teamwork and entrepreneurship with professionalism and ethical values.
- 4 To bridge students with industries and research organizations so as to increase placement or higher studies preferences amongst the graduates.



# DEPARTMENT VISION & MISSION

# Magazine Committee

## Coordinator



**Prof. Vishalkumar Z. Dhimmar**

In/C, HOD

## Member



**Prof. Vivek B. Bhagat**

Assistant Professor

## Member



**Prof. Rikesh B. Prajapati**

Assistant Professor

## Member



**Prakash G. Khairnar**

Student

## Member



**Valay M. Rana**

Student

## Member



**Faizan M. Saiyad**

Student

## Member



**Swapnil A. Prajapati**

Student

## Member



**Mohini D. Mahyavanshi**

Student

# MERITORIOUS STUDENTS

## WINTER 2019 GTU EXAMINATION

<b>Semester 1</b>	<b>Semester 1</b>		
	<b>Enrolment No</b>	<b>Name</b>	<b>SPI</b>
	190490119025	Mavani Denis Ashokbhai	9.26
	190490119037	Patel Jeel Suketubhai	8.89
	190490119026	Misal Sagar Sampatbhai	8.11
	190490119032	Patel Dharmin Vinaykumar	7.74
	190490119040	Patel Krunal Gokulbhai	7.47

<b>Semester 3</b>			<b>Semester 3</b>
<b>Enrolment No</b>	<b>Name</b>	<b>SPI</b>	
180490119040	Saiyad Sufiyan Md ibrahim	8.04	
180490119042	Salve Mayur Randhirbhai	7.91	
180490119037	Prajapati Ravi Bharatbhai	7.74	
180490119003	Baheliya Ajay Radheshyam	7.35	
180490119043	Sharma Sonu Ramkumar	7.17	

<b>Semester 5</b>	<b>Semester 5</b>		
	<b>Enrolment No</b>	<b>Name</b>	<b>SPI</b>
	170490119065	Rana Karan Kanchanbhai	8.68
	170490119035	Khairnar Prakash Gyaneshvar	8.52
	170490119047	Patel Divyesh Dhansukhbhai	8.32
	170490119023	Gamit Jaymeet Jitendrabhai	8.58
	170490119080	Sonvane Hitesh Sunilbhai	8.1

<b>Semester 7</b>			<b>Semester 7</b>
<b>Enrolment No</b>	<b>Name</b>	<b>SPI</b>	
160490119026	Javiya Vatsal Babubhai	9.53	
160490119040	Panchal Harsh Alkeshbhai	9.13	
170493119017	Dave Meet Tusharbhai	9.03	
160490119030	Khatri Yash Harshadbhai	9	
160490119014	Chaudhari Tarkik Umeshbhai	8.83	



# Activities

# INDUSTRIAL VISIT

## SURAT DISTRICT CO-OPERATIVE MILK PRODUCERS' UNION LTD (SUMUL), SURAT

18<sup>TH</sup> JAN, 2020



Mechanical department had arranged one-day visit of Surat District Co-operative Milk Producers' Union Ltd, Surat on 18th January 2020 for 3rd year students as a part of Refrigeration and air conditioning (RAC) Subject. The visit was conducted by Prof. Anil Patel and Prof. Hiren Tamboli where total 78 students have benefitted from this visit.

## BHARKADEVI ICE-CREAM FACTORY NANDIDA, BARDOLI

Mechanical department had arranged one-day visit of Bharkadevi Ice-cream factory on 18th January 2020 for 2nd year students as a part of manufacturing processes and organisation behaviour. The visit was conducted by Prof. Milan Patel and Prof. Harshal Shukla where total 69 students have benefitted from this visit.

18<sup>TH</sup> JAN, 2020



07<sup>TH</sup> MARCH, 2020



Mechanical department had arranged one-day visit of Sugar Factory, Bardoli for 1st year and 2nd year students as a part of manufacturing processes and organization behaviour subjects as the factory had their unit which includes manufacturing, inventory and delivering their products at various locations in PAN India. The visit was conducted by Prof. Harshal Shukla where total 85 students have benefitted from this visit.

## BARDOLI SUGAR FACTORY

# Activities

# WORKSHOP

## VERTICAL MACHINING CENTRE

10<sup>TH</sup> FEB, 2020



The Department of Mechanical Engineering had organized one day workshop on “Vertical Machining Centre” at SNPIT&RC, Umrakh for the final year students of GP, Waghai. The Purpose of the workshop was to understand the fundamentals of CNC part programming and Operation on VMC (Vertical Machining Centre) machine. To Explore Computer Aided Manufacturing and to describe the fundamentals of CNC Part Programming, various processes related to Automation, applications and implications.

## ROLE OF PRODUCTION ENGINEER IN WELDING TECHNOLOGY WITH NDT METHODS



26<sup>TH</sup>  
FEB  
2020



The Department of Mechanical Engineering had organized two days workshop on “Role of production engineer in welding technology with NDT methods” at SNPIT&RC, Umrakh for the final year students. The Purpose of the workshop to spread awareness about the need of production engineer in advance welding domain in conjunction with NDT methods. The EXPERT SPEAKERS were Mr. Amit Kulkarni: construction manager at L&T ECC Division (Engineering Construction Company) and Mr. Hemant Desai, managing director at Desai industrial inspection services Pal-hazira road, Surat.



# Activities

# WORKSHOP

## VERTICAL MACHINING CENTRE

26<sup>TH</sup> FEB 2020



The Department of Mechanical Engineering had organized one day workshop on “Vertical Machining Centre” at SNPIT&RC, Umrakh for the final year students of A. Y. Dadabhai Technical Institute, Kosamba. The Purpose of the workshop was to understand the fundamentals of CNC part programming and Operation on VMC (Vertical Machining Centre) machine. The EXPERT SPEAKERS was Prof. Ripal Patel, Assistant Professor, SNPIT&RC and total 72 students gets benefitted from this workshop.



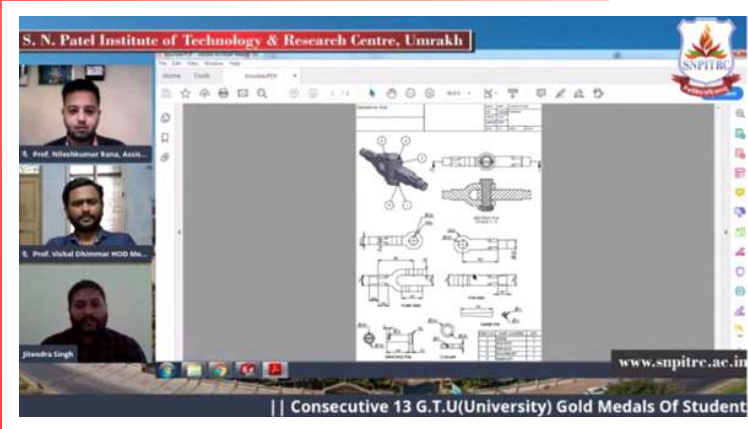
## VERTICAL MACHINING CENTRE

28<sup>TH</sup> FEB 2020

The Department of Mechanical Engineering had organized one day workshop on “Vertical Machining Centre” at SNPIT&RC, Umrakh for the final year students of BVPIT (Diploma Studies), Umrakh. The Purpose of the workshop was to understand the fundamentals of CNC part programming and Operation on VMC (Vertical Machining Centre) machine. The EXPERT SPEAKERS was Prof. Ripal Patel, Assistant Professor, SNPIT&RC and total 27 students gets benefitted from this workshop.

# Activities WEBINAR

## INTRODUCTION TO 3D CAD/CAE SOFTWARE: SOLIDWORKS 14<sup>TH</sup> MAY 2020



The Department of Mechanical Engineering had organized an Expert Lecture on “Introduction to 3D CAD/CAE Software: SolidWorks” as subject Computer Aided Design and Machine Design & Industrial Drafting by SNPIT&RC, Umrakh.

speaker was Mr. Jitendra Singh: Sr. Application Engineer , SOPAN Institute of Engineering & Design. This Webinar was live and is available on Youtube link:

<https://www.youtube.com/watch?v=84OYJsWKeKo>

## ENTREPRENEURSHIP DEVELOPMENT 19<sup>TH</sup> MAY 2020

The Department of Mechanical Engineering had organized an Expert Lecture on “Entrepreneurship Development” by SNPIT&RC, Umrakh. The speaker was Mr. Amit Yadav: CEO, Dechcept Private Limited. The Webinar was live and is available on Youtube link:  
<https://www.youtube.com/watch?v=MSrzCbxoEiY>



## RECENT TRENDS IN QUALITY ENGINEERING 25<sup>TH</sup> MAY 2020



The Department of Mechanical Engineering had organized an Expert Lecture on “Recent Trends in Quality Engineering” by SNPIT&RC, Umrakh. The speaker was Dr. Tushar Desai: Professor, MED at SVNIT, Surat. The Webinar was live and is available on Youtube link:

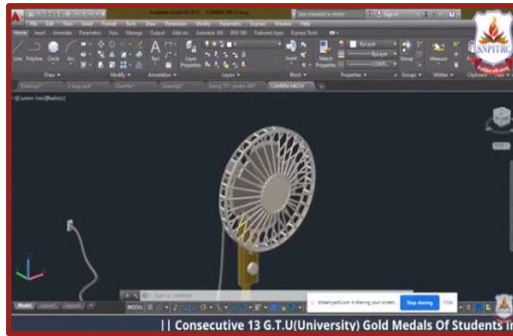
<https://www.youtube.com/watch?v=cjZgierS8co>



# Activities

# WEBINAR

## INTRODUCTION TO AUTOCAD

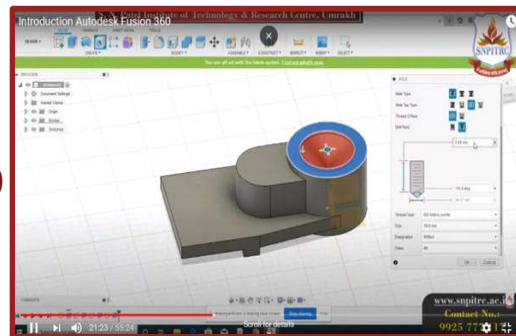


**26<sup>TH</sup> MAY 2020**

The Department of Mechanical Engineering had organized an Expert Lecture on “Introduction to AutoCAD” by SNPIT&RC, Umrakh. The speaker was Mr. Umang Dholakiya: CAD Trainer, Khodiyar CAD Centre India Pvt. Ltd. This Webinar was live and is available on Youtube link: <https://www.youtube.com/watch?v=bPSDLQdDntc>

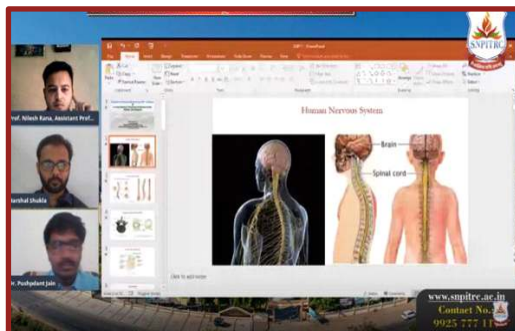
## INTRODUCTION TO AUTOCAD FUSION 360

**01<sup>ST</sup> JUNE 2020**



The Department of Mechanical Engineering had organized an Expert Lecture on “Introduction to AutoCAD Fusion 360” by SNPIT&RC, Umrakh. The speaker was Mr. Darpan Vaghasiya: CAD trainer, Khodiyar CAD Centre. This Webinar was live and is available on Youtube link: <https://www.youtube.com/watch?v=AXysYIQDtdk>

## INTRODUCTION TO AUTOCAD FUSION 360



**03<sup>RD</sup> JUNE 2020**

The Department of Mechanical Engineering had organized an Expert Lecture on “Application of Mechanical Engineering in Biomechanics” by SNPIT&RC, Umrakh. The speaker was Dr. Pushpdant Jain: Associate Professor, Oriental Institute of Science & Technology, Bhopal. The Webinar was live and is available on Youtube link: <https://www.youtube.com/watch?v=rDfwbKU-c5g>

# Activities WEBINAR

## INTRODUCTION TO FRICTION STIR WELDING (FSW) AND PROCESSING

**05<sup>TH</sup> JUNE, 2020**

**Friction Stir Welding Tool**

- **Functions of FSW tool:**
  - (i) **Heat generation** by friction, and intense plastic deformation of work material,
  - (ii) **Mixing of work materials** from both side by rotation of pin, and
  - (iii) **Confinement of the hot work material** beneath the tool shoulder.
- **FSW tool is composed of:**
  - i. A **tool pin**
  - ii. A non-consumable **tool shoulder**
- **FSW Tool design affects**
  - Amount of heat generated,
  - Productivity of the process, and
  - Soundness of the joint.

*(Ref: Friction stir welding & Processing by Rajiv Mishra and Mahoney)*

www.snpitrc.ac.in  
Contact No. 9925 777 11

The Department of Mechanical Engineering had organized an Expert Lecture on “Introduction to Friction Stir Welding (FSW) & Processing” by SNPIT&RC, Umrah. The speaker was Dr. Shailesh Pandya: Assistant Professor, SVNIT, Surat. The Webinar was live and is available on Youtube link: <https://www.youtube.com/watch?v=HxMASuzfyil>

## MANUFACTURING PROCESS AND ESPRIT CAM SOFTWARE

**09<sup>TH</sup> JUNE, 2020**

**The only CAM system you'll ever need**  
A powerful full-spectrum CAM system for CNC programming, optimization and simulation

High-performance machining      Hybrid manufacturing      3D printing/additive manufacturing

www.snpitrc.ac.in  
Contact No. 9925 777 11

The Department of Mechanical Engineering had organized an Expert Lecture on “Manufacturing Process & ESPRIT CAM Software” by SNPIT&RC, Umrah. The speaker was Mr. Mahek Mistry, Director, Sopan Group, Surat. The Webinar was live and is available on Youtube link:

<https://www.youtube.com/watch?reload=9&v=w-G16bnlKt8>

# FACULTY ASSETS OF MECHANICAL ENGINEERING DEPARTMENT

Name	Qualification	Designation
Dr. Piyush S. Jain	Ph. D.	Professor
Prof. Vishal Z. Dhimmarr	M.E.	HOD & Asst. Prof.
Dr. Chetan P. Patel	Ph. D.	Assoc Prof.
Dr. Shakil A. Kagzi	Ph. D.	Asst. Prof.
Prof. Milan A. Patel	M.E.	Asst. Prof.
Prof. Arif M. Varsi	M.Tech.	Asst. Prof.
Prof. Ripal C. Patel	M.Tech.	Asst. Prof.
Prof. Priyank P. Dave	M.E.	Asst. Prof.
Prof. Hitesh A. tailor	M.Tech.	Asst. Prof.
Prof. Hiren Tamboli	M.Tech.	Asst. Prof.
Prof. Rinkesh B. Patel	M.Tech.	Asst. Prof.
Prof. Harshal T. Shukla	M.Tech.	Asst. Prof.
Prof. Piyush B. Savaj	M.Tech.	Asst. Prof.
Prof. Chirag N Chaudhari	M.Tech.	Asst. Prof.
Prof. Hiten Mistry	M.E.	Asst. Prof.
Prof. Misal C. Gandhi	M.E.	Asst. Prof.
Prof. Nilesh Rana	M.E.	Asst. Prof.
Prof. Rikesh B. Prajapati	M.Tech.	Asst. Prof.
Prof. Vatsal B. Maisuriya	M.E.	Asst. Prof.
Prof. Deep M. Vyas	M.E.	Asst. Prof.
Prof. Divyesh S. Patel	M.E.	Asst. Prof.
Prof. Tinej J. Vaghela	M.E.	Asst. Prof.
Prof. Sankalp P. Patel	M.E.	Asst. Prof.
Prof. Krunal A. Patel	M.E.	Asst. Prof.
Prof. Krishna D. Modi	M.E.	Asst. Prof.