

# TECH PULSE

The Quarterly Newsletter by L. D. College of Engineering



# **AROUND THE INSTITUTE**

Lalbhai Dalpatbhai College of Engineering endearingly known as L.D.C.E is Ahmedabad's premier engineering college situated at the heart of the city surrounded by elite organization Like PRL, ATIRA, ISRO, IIM and CEPT. Started in 1948 with an aim of imparting quality higher education in various fields of engineering, it has seen unprecedented growth. It is affiliated with Gujarat Technological University & administrated by Directorate of Technical Education, Government of Gujarat.

# HIGHLIGHTS



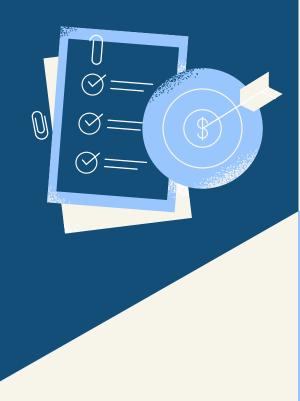
# **OUR MILESTONES**

#### **VISION**

To contribute for sustainable development of nation through achieving excellence in technical education and research while facilitating transformation of students into responsible citizens and competent professionals.



#### **MISSION**



- To impart affordable and quality education in order to meet the needs of industries and achieve excellence in the teaching-learning process.
- To create a conducive research ambiance that drives innovation and nurtures research-oriented scholars and outstanding professionals.
- To collaborate with other academic & research institutes as well as industries in order to strengthen education and multidisciplinary research.
- To promote equitable and harmonious growth of students, academicians, staff, society and industries, thereby becoming a center of excellence in technical education.
- To practice and encourage high standards of professional ethics, transparency and accountability.



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# FROM THE DESK OF PRINCIPAL

Dear Faculty and Student Friends,

I am happy to inform you that our Institute organized Kaizen 2021 online from 19th to 24th April 2021 to showcase the projects of UG and PG final year students. Online Kaizen-2021 has been a great success as we saw immense enthusiasm and creativity. It is indeed a matter of great pride that we showcased 589 innovative projects.

We have filed 6 patents in the last 3 months. We are consistently doing well as far as academic events in the institute are concerned. The faculty members have published more than 40 research papers during this phase. As a need of the hour, our faculty members also worked at the Dhanvantari Covid Hospital.

We celebrated Environment day by planting 30 saplings on the campus. The institute celebrated International Yoga Day with the physical and virtual presence of more than 400 faculty members and students.

Let's all strive a bit more and go beyond our comfort zone to achieve higher peaks.

With best wishes

- Dr. R. K. Gajjar

## **MAJOR EVENTS**

(Institute level/Department level)

• The Applied Mechanics Department organized a 5-day online short-term training programme (STTP) on "Novel Advances in Ingredients of Sustainable Construction Materials" from 1-5 June 2021, under the aegis of The Institution of Engineers (India) Student's Chapter, Ahmedabad. Approved by the Directorate of Technical Education & Indian Society for Technical Education & sponsored by Gujarat Council for Sciences Technology (GUJCOST) and LDCE Alumni Association (LAA). This STTP inaugurated by Dr. Soumen Maity - Sr. GM & Asst. VP of Development Alternatives, New Delhi in a well-attended opening inaugural session. This training programme attracted participants from various regional and national level engineering colleges. The valedictory session was presided by Dr. M. N. Patel (Provost, Parul University) as Chief Guest & Shri Atul Shah (Vice) President, L. D. Alumni Association) as Guest of Honour & the entire STTP was efficiently conceptualized by Prof. Poonam I. Modi and was well co-ordinated by Prof. Deepak Tarachandani, Prof. Ashwin G. Hansora & Prof. Poonam I. Modi under the able leadership of Major. Dr. C. S. Sanghvi.





• "SAE LDCE Orientation - 2021" was organized on 21/06/2021. There were 56 participants. The agenda behind this program was to provide knowledge to the students about "The Advantages and Skill Development by Joining SAE LDCE Club." Also, Extra-Curricular activities play a vital role to develop basic skills.



• "LDCE Motorsports Orientation - 2021" was organized on 27/06/2021 and 57 students participated in this. The agenda behind this program was to provide knowledge to the students about "The Advantages and Skill Development by Taking Part in LDCE Motorsports Club." Also, practical knowledge plays a vital role to develop Engineering skills.

• Farewell for SAE LDCE and LDMS team was organized on 31/05/2021, 48 team members of club and LDMS team were present. The reason behind this Farewell was to appreciate their hard work to raise the name of SAE LDCE at the College level as well as national level by taking huge number of events, webinars, seminars and competitions like quiz.





- Chemical Engineering Department has applied for NBA accreditation for the year 2017-2020. As a preparation, a mock round of NBA visits was organized on 21st June 2021. The experts Dr. Jayant Chavda Principal, B. K. Modi Government Pharmacy College, Rajkot, and Prof. Ashokkumar Patel, Associate Professor, B. K. Modi Government Pharmacy College, Rajkot had visited Chemical Department for the mock round.
- Kaizen-2021 for Biomedical Engineering Department was conducted with 2 panels of Experts [Mr. Mohit Tiwari (Field Service Specialist-West, Carl Zeiss), Mr. Jayesh Gandhi (Managing Director, Harikrupa Automation)], Prof. (Dr.) Manish Thakkar (Head of the department) and faculties of the Biomedical Engineering department; reviewing all the teams of final year IDP/UDP projects on 19th April 2021.















• Meghmani Organics Ltd., Ahmedabad provided very useful equipments worth Rupees 10 lakh for modernizing the laboratories of the Chemical Engineering Department as a part of the industry-institute initiative. The equipment will benefit the students of the department to perform the practicals and gain hands-on experience in the laboratory. Also it will strengthen their theoretical knowledge by applying various principles of chemical engineering and check the results after performing the experiments. The equipments are related to fluid flow operations, heat transfer operations, mechanical operations, mass transfer operations, instrumentation and process control, and reaction engineering. The department is overwhelmed by the kind gesture and great initiative taken by M/s Meghmani Organics Ltd. The department genuinely appreciates the generous and benevolent gesture from M/s Meghmani Organics Ltd. which will immensely benefit the students and the department as a whole. Shri Ashish Soparkar, Managing Director of Meghmani Organics Ltd. visited the L. D. College of Engineering and Chemical department on 8th June 2021. The event was also attended by Dr. S. P. Parikh, Jt. Director, Commissionerate of Technical Education, Gujarat State. All the dignitaries along with Dr. R. K. Gajjar, Principal, L D College of Engineering, Ahmedabad; Dr. P. H. Rana, HoD, Chemical department and all faculty members of Chemical engineering department and other departments had a visit of the laboratories where the new equipment provided by Meghmani Organics Ltd. were demonstrated.

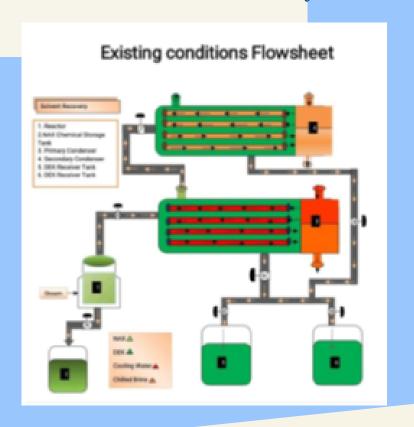




#### Kaizen 2021: Chemical Engineering Department

• The online Kaizen 2021 for Chemical Engineering Department was conducted on 19th and 20th April 2021 for reviewing 15 teams of final year IDP/UDP projects (total 70 students) and 10 PG dissertation projects. The projects were evaluated by experts Prof. (Dr.) Dharamsinh Rabari, Ahmedabad University, and Shri. M. N. Vyas, Consultant, and Ex. G.M, IPCL, Vadodara, accompanied by internal evaluators from the institute.

• 1st position was secured by Sonigra Nayan, Parmar Darshan, Mahaliya Rohit, Parmar Kishan, Kateshiya Vrajlal, their project was "Major Engineering Problem in Solvent Recovery in Distillation Unit" guided by Prof. S. M. Dutta.





• 2nd position was secured by Dobariya Rutvik, Chovatiya Himanshu, Dabhi Mahesh, and Damor Vanraj, their project work was about "Synthesis of black TiO2 for visible-light photocatalysis" guided by Prof. T. S. Rajaraman.

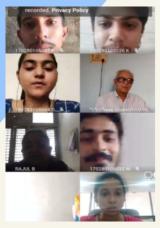




• 3rd position was secured by Rutvikkumar Bhatiya, Bhavsar Yash V., Pandya Jatin G., Pankhaniya Kumbhan N., and Patil Mitesh P, their project work was about "Evaluating Performance of Inorganic Fertilizers as Draw Solute in Fertilizer Driven Forward Osmosis for Wastewater concentration" guided by Prof. S. M. Dutta.

• 1st position in the M. E. section was secured by Nisha Devi for her dissertation work on "Development of novel organo ruthenium drugs for cancer therapy" guided by Dr. P. H. Rana.



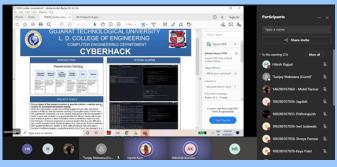


#### Kaizen 2021: Computer Engineering Department

- KAIZEN 2K21 was organized in the Computer Engineering department on 19th and 20th April 2021 online mode where 150 students from UG BE in Computer Engineering and 17 students from PG ME in Computer Engineering participated in project demonstration -open house project exhibition. There were 47 projects from UG and 17 from PG in the exhibition and evaluated by industry & academic experts. Prof. Bhavesh Oza and the whole department have collectively coordinated the KAIZEN 2K21 for CE Department.
- There were winners who added value to society by excellence in technological enhancement. Some details are presented below:
- 1st position was secured by Iliyas Murtuza Attarwala, Babariya Dhruvkumar, Monil Pareshkumar Bhavsar, and Chaudhary Aman Salilkumar for the project of "Intkut - Deepfake Detection" guided by Prof. T A Champaneria.
- 2nd position was secured by Keval Chauhan and Ayushi Mistry for the project "Brain Tumor Detection" guided by Prof. P. R. Dave
- 3rd position was secured by Pujara Shlok, Raj Sanghvi, Manav Shah, and Shalin Suthar for the project "Deepfake Generation and Recognition" guided by Prof. Y. B. Patel







An online webinar on "Orientation on How to ace your Summer Internship & a Career Talk" was organized and delivered by Prof. Jitisha Kamble, Asst. Prof., CED, & Prof. Payal Andharia (Applied Mechanics), LDCE on 6th April 2021 for the students of Civil Department in association with Internshala, AICTE, MHRD.

#### Kaizen 2021: Information Technology Department

- The Information Technology department organized "Kaizen 2k21" for MCA students' project evaluation on 23/04/2021 under the coordination of faculty guides Prof. Shital Solanki and Prof. Jaimin Chavda. Mr. Pandar Mayurdhwaj Kantilal and Mr. Thakkar Kaushal Gunvantbhai with the project title "Crop Disease Prediction" were declared as the winners of the Kaizen 2k21.
- The Information Technology department organized "Kaizen 2k21" for BE students' project evaluation on 21/04/2021 under the coordination of faculty guide Prof.Mital Panchal. Panchal Manan, Punad Tushar, Rathod Krushnaraj, Rathod Vipul with the project title "DPRS (Disease Pre-Repository System)"; Shah Priyal M. Thakkar Dhwani Jadeja, Abhijeetsinh, Shah Anshini with project title "Track the Track" Patel Dhruvik, Jotaneeya Dhaval, Patel Parth, Gohil Hardikkumar with project title "Image Description" were declared as the winners of the Kaizen 2k21.
- The Information Technology department organized "Kaizen 2k21" for ME students' project evaluation on 18/04/2021 under the coordination of faculty guides Prof. Jahnvi Patel and Prof. Jaimin Chavda. Neil Saxena, the student of ME Sem 4 was declared the winner of the Kaizen 2k21.
- A two days' workshop on Android Application Development was conducted under the faculty coordinator Prof. Jaimin Chavda and student coordinator Mr. Parth Kukadia of the IT Department for semester 2 students on 12 and 13 June. 34 Students participated in the workshop.
- Special non-technical and technical events were organized by the Electrical department (e.g Tree Plantation, Debate, Elocution, etc) Sahitya Sarita, Drama, and KAIZEN.

#### **Environmental Engineering Department**

• The Environmental Engineering department had organized capacity building programs (Online) as per the table:

<u>Sr.</u> <u>No.</u>	Capacity Building Program Topic	Expert Name	<u>Designation ජි</u> <u>Organization</u>	<u>Duration</u>	No. of students Participated
1	Policy Frameworks and Industry Practices for Climate Adaptation and Mitigation	Mr. Jay Mehta	Environmental Management Centre, Mumbai, Maharashtra, India	19/04/2021 to 21/04/2021	65
2	Climate Modelling	Mr. Sagar Rathod PhD Research Scholar	Atmospheric Science, Colorado State University, USA	12/04/2021 to 15/04/2021	65

#### Kaizen 2021: IC Engineering Department

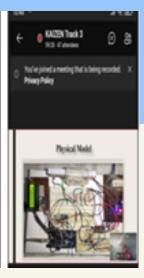
• The online Kaizen 2021 for IC Engineering Department was conducted with 3 expert Jury members (Dr. C. B. Bhatt (Principal MCA college-Maninagar), Dr. Suryakant Gupta (Scientific Officer -G, FCIPT Gandhinagar), and Mr. Jitendra Gajjar (Director Amee Power) reviewing all the teams of final year IDP/UDP projects on the date of 19th April 2021 through Microsoft team. As per the Panel reviewers, total of 3 Innovative Projects were selected out of 21 UG Projects.

<u>Sr.</u> <u>No</u>	Student's Name	Faculty Name	Title of Innovative Project
1	Shah Jinay, Mistry Jay, Thakor Suresh	Prof. D. V. Raninga	Underwater Inspection Vehicle-1.0
2	Senjaliya Janesh, Parmar Nikunj, Patel Maulik, Chaudhary Jay	Prof. V. V. Patel	Plastic detection and separation
3	Panchal Shalin, Dubal Janvi, Singh Shaifali, Sorathiya Mansi	Prof. L. S. Patel	Portable density meter with temperature and humidity sensor

• On July 4, 2021 Orientation program of ISA 2021-22 was organized that aimed at involving and encouraging the students of 2nd year and 3rd year of UG of LDCE to explore and contribute to the domain of automation via this local chapter. The session was organized by the ISA core team. The session expanded on the vision and mission of ISA, the benefits of joining ISA, how it increases awareness and develops one for a career in Automation, the volunteer-ship and scholarship program which is one of the most career shaping opportunity of ISA Student Section.

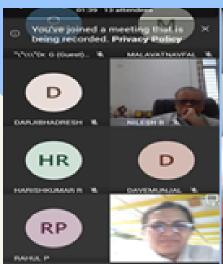




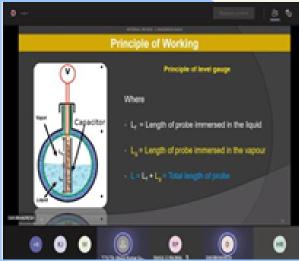


#### Kaizen 2021: Mechanical Engineering Department

• The mechanical department successfully organized online Kaizen 2021. Project fair of the final year undergraduate course and three post-graduate courses was organized to demonstrate their projects and research work to society and other students during 19 - 21 April 2021. Total 36 projects of UG and 42 projects of PG were displayed through various online platforms and judged by renowned industrialists and senior faculty members of the department.







The following points were considered during the evaluation processes.

- (i) innovation/novelty
- (ii) design aspects/methodology,
- (iii) development of the model,
- (iii) analysis/ experimentation,
- (iv) presentation and question-answer
- (v) teamwork. Students participated with great enthusiasm and passion.

All the faculties of the department have encouraged them to develop a positive attitude in the difficult situations of Covid.

• Center of Excellence Welding - Keepsake welding research and skill development Center facilitates a number of students of UG, PG, and Ph.D. for their experimental work regarding the final year project, dissertation, and research respectively for practical knowledge up-gradation and research area. The list and photographs are as follows.

<u>Sr.</u> <u>No.</u>	Project Name	Student Name	Guide Name
1	B. E. Project - Effect of welding paleametas of high-tech welding technique on cladding materials.	Rathod Vishal B. Darshangiri Subeshgiri Sangani Prashant D. Mohammod Ali H.	Prof. A. G. Momin
2	B.E Project- Increasing the concentration of effluent using solar energy.	Vivek S. Thakkar and Team	Dr. N. M. Bhatt
3	M.E Project Characteristic analysis of thermal coating of NiCrBSi alloy powder performed by transferred plasma Arc spraying on SS316 material.	Patel Raj Shivkumar	Prof. P. R. Rathod
4	M.E Project -Performance Evaluation of tialn coated tool during hot machining of OHNS round box	Parmar Jayesh H.	Dr. P. R. Rathod
5	M.E Project -Prediction of Performance Parameters of Fused Deposition Modelling process with an Artificial Neural Network Approach	Shah Prerak V.	Dr. K. G. Dave
6	M.E Project - Dissertation Work	Rutvik Kalthaiya Ashvini Mehta	Prof. M. V. Shah

#### Kaizen 2021: Textile Engineering Department

- Online KAIZEN 2021 was conducted by the Textile department on 22nd and 23rd April 2021. All faculty members and final-year students attended the meeting. The students presented their project work and it was reviewed by Industry Expert Shri Kamlesh Patel.
- Department has celebrated "WORLD TELECOMMUNICATION DAY" by arranging a webinar on the theme "5G: Impact on Health of Humans" under the student chapter of IETE, whose speaker was Mr. Vipul Dodiya, a Telecom Officer, BSNL, on 17th May 2021

#### Kaizen 2021: Rubber Engineering Department

- Rubber Technology Department has successfully completed Kaizen 2021 event for UG & PG students through online mode on 22nd April 2021.
- Rubber Technology Department had arranged pedagogy meetings with 1. Mr. Atul Shah, Rubber alumn & MD, Pioneer Rubbers on "Rubber Nanocomposites: Latest Trends and Concepts", 2. Mr. Ronak Panchal, MD of Pravin Rubber & Engineering works on "EPDM based bonding of cured rubber", 3. Mr. Saurabh Shah, Rubber Alumni on "Latest trends in rubber research and project management", 4. Mr. Darshan Shah, MD of Rubber Concept on "Dynamic properties relationship with rubber product performance", 5. Mr.Dattatray Dudhal, Senior Technical Engineer BKT tire on "Basic Car Tyre Development Principles", 6. Ms.Nipasha Desai, Deputy Section officer DYSO on "Important Elements of Market Demand". Prof.R.N.Desai has coordinated and Prof. A.D.Bhatt, Prof. B.D.Patel, Prof. S.J.Padhiyar, Prof. G.G.Bhatt, Prof. R.Y.Modan & Prof. P.N.Chavda attended the meeting through Google Meets during April-June 2021.
- Prof. S. J. Padhiyar has coordinated for student placement at the departmental level and 90% placement has been achieved.

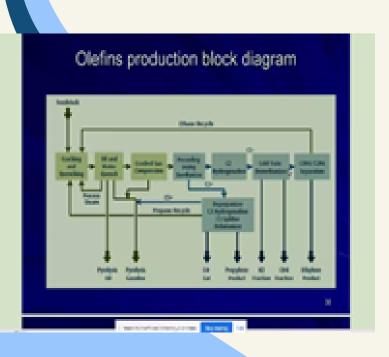
## **INDUSTRY - INSTITUTE INTERACTION**

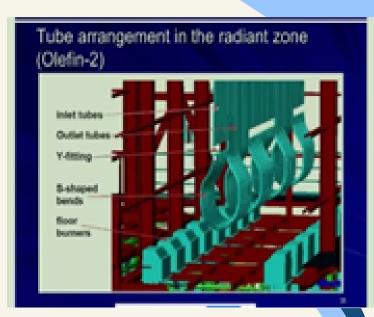


- Prof. Poonam I. Modi delivered an Expert Talk on "Diagnosis of Distress in RCC & Masonry" on 24th May 2021 in a 2 week Online AICTE sponsored FDP on Structural Assessment, Repair, and Rehabilitation of Structures (Series 2) from 24th May 2021 to 5th June 2021, organized by Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu.
- Prof. P. N. Chavda arranged an online session on "Mold Design for Rubber Products" with Mr. Yashodhar Kahate, Director of Eeshaan Automation Pvt. Ltd. on 31st May 2021.

- Webinar on **GERMAN** LANGUAGE & CONSULTANCY PROGRAM was organized by Engineering Automobile department and SAE LDCE Club on 17/04/2021. Ms. Mital Patel for Mital Deutsch Sprachule and Shrehasi Consultancy India was an expert for this webinar and 71 participants have taken advantage of this webinar.
- Prof. G. G. Bhatt arranged an online session on "Improve the splice joint properties of butyl rubber inner tube" with Mr. Chirag Patel, Managing Director of Yash Polymer on 25th June 2021.
- Prof. P. N. Chavda arranged an online session on "Different Techniques of conveyor belt joining process" with Mr.
   Sarthak Vasavda, Director of Forum Polymer on 4th June 2021.

An expert lecture on "Steam cracker" was arranged by the Chemical engineering department on 10th April 2021 through Teams online platform. Mr Utkarsh Mishra, Senior Manager, Reliance Industries Ltd, Jamnagar was the speaker of the session. Around 100 students of final and pre-final year were present in the session. Mr Utkarsh had given an overview of the refinery and focused on the steam cracker unit. He explained the role, importance, major key points associated with the cracker unit. He started with the basic fundamentals and explained the cracking and its mechanism in detail. He also talked about the major issues and problems of the unit.





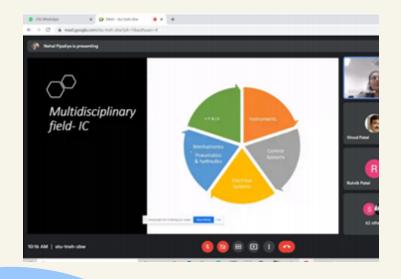
- 6 MOUs done so far with industry by the Civil Engineering Department. The activities with them are planned as COVID-19 threat is over now.
- Prof. R. Y. Modan arranged an online session on "Role of vehicle classification by propulsion system" with Mr. Prakash Barot, Manager at MG Motor on 10th April 2021.

The Computer Engineering
Department is facilitated with a
new smart interactive board.
Meeting the new age demands,
the smart board will help in
better teaching-learning
methodology. Faculties were
trained for using the interactive
board.





- On 19th June 2021 Department and ISA organized a Webinar on "Design Engineering Expert Talk". This webinar was mentored by Prof. N. D. Mehta, Assistant Professor in Power Electronics Department VGEC, Chandkheda.
- Prof. R. Y. Modan arranged an online session on "Overview of solid tyre manufacturing plant" with Mr. Hasmukh Panchal, MD, Parth Rubbertech Pvt ltd on 26th April 2021.
- Prof. A. D. Bhatt arranged an online session on "Recycling of Castable Polyurethane" with Mr. Boney Bhavsar, MD at Moon Urecast Pvt. Ltd on 26th May 2021.
- Prof. B. D. Patel arranged an online session on "Compound Design & Machine Design in Rubber molding" and "Compound Design & Machine Design in Rubber Extrusion" with Mr. Atul Shah, MD, Pioneer Industries on 11th June 2021.



• On 12th June 2021 Department and ISA organized a Webinar on "INDUSTRY NOW AND **UPCOMING REVOLUTION AND** CAREER GUIDANCE". The webinar was conducted by Ms. Nehal Pipaliya, She is an alumnus of LDCE with B. E. in Instrumentation and Control engineering. Ms. Nehal has more than six ofyears experience working in automation and control domain. She is trained by Siemens and professionally qualified for simatics **S7** 1200/1500. She also professional qualifications for PROFICY HMI SCADA.

- Prof. R. Y. Modan arranged an online session on "Various issues in Biodegradable Polymer" with Miss Hensha Haneefa, Junior Scientist, DRDO on 6th April 2021
- For fostering the ecosystem bridging Government, Academia and Industry, Dr. S S Pathan, Mechanical department, was appreciated jointly by Texas Instruments, USA & AICTE. The certificate of appreciation was issued to him for coordinating Swayam MOOC on "TI Embedded System Design using MSP430".
- Prof. G. G. Bhatt arranged an online session on "Improve the properties of x-ray shield material" and "Functional coating of rubber O-ring" with Mr. Parin Sheth, Managing Director of Shrinath Rubber on 31st May 2021.
- Prof. R. N. Desai arranged an online session on "Technology of Rubber Molding and Metal treatment" with Mr. Bhadreshbhai, MD, Vaibhav Enterprise on 16th June 2021.

- Prof. M. K. Vyas, Mechanical department, organized an Expert lecture of Mr. Hardik Patel from H.S.B.C Bangalore for 6th Semester Elective students on "Finance and Management: A step towards Entrepreneurship" on 19th June 2021 as a firsthand interaction for future young Entrepreneurs.
- An online session was organized for Rubber Technology students on "Improvement in design of solid tire" delivered by Mr. Dipak Saini, Deputy Manager- Technical and QA at Rubber King Tyre Pvt. Ltd. on 3rd April 2021.
- Plastic Technology Department,
  L.D.College of Engineering,
  arranged a webinar on "Applied
  IELTS" by Dr. Prabha Soni on 8th
  May 2021. Final & pre-final year
  students of the Plastic Technology
  department along with the
  faculties of Plastic Technology
  attended the same.

- Prof. R. Y. Modan arranged an online session on the "O-ring manufacturing process" with Mr. Anand Modi, MD, Natraj Polymers on 5th April 2021.
- The students of the Semester VI Textile department have attended the Internship program from 24th May 2021 to 4th June 2021. Experts from reputed industries conducted detailed sessions and gave them practical insights in their area of expertise in the field of Textiles. Dedicated two days sessions were arranged Finance, Project Accounts, reports, IPR, Startup, and Government schemes. The students benefited from the same and expressed their willingness to attend similar workshops so as to gain in-depth knowledge in their field.
- Prof S. J. Padhiyar arranged an online session on "Heat Resistance to PLA compound" with Mr. Prakash Patel, Managing Director, Agile products on 15th June 2021.

- Prof. B. D. Patel arranged an online session on "Increase productivity of Mixing process" with Mr. Tushar Kalkani, MD, Fusion Polymers on 17th June 2021.
- Prof S. J. Padhiyar arranged an online session on "Rubber Force EMI Shielding" with Mr. Darshan Shah, Managing Director, Rubber Concept on 14th June 2021.
- Prof. R. N. Desai arranged an online session on "Compound design and product development" with the Managing Director, Roop Polymers on 18th June 2021.

- An online session was organized for Rubber Technology students on "Demand and Future Scope in Tyre industries" delivered by Mr. Pankaj Bagora, Human Resource at Rubber King Tyre Pvt. Ltd. on 3rd April 2021.
- Prof. A. D. Bhatt arranged an online session on "Microwave Vulcanization of Extrudate" and "Preparation of Rubber Liner for railway Application" with Mr. Dhiren Sonagara, MD at Sanvi Rubber Products on 28th May 2021.

## **RESEARCH & DEVELOPMENT**

Under the guidance of Prof. Hetal A. Joshiara following team members have successfully conducted and coordinated all the events.

Technical Team	Management Team	Support Team
Dev Patel	Kathan Modi	Shubham Pandit
Mosam Patel	Devashri Chauhan	Rajesh Patel
Shaily Shah	Dhruv Patel	Moksha Shah
Naveez Khoja		Juhi Bhojani
		Vismay Patel

• Computer/IT Engineering students have established a club called "HACKEREARTH LDCE" under "AarmbhCell". The major objective of the club is to prepare highly skilled programmers who can withstand a competitive edge. Students are being prepared for forthcoming World/National Hackathon kinds Level /State competitions. The team has been approved for the CAMPUS AMBASSADOR PROGRAM carry out campaigns and spread information about competitive programming and problem-solving skills in the form of the best beginner's guide for new upcoming programmers. CODE FIESTA 1.0 - The coding competition was organized on 20th June 2021 and 22nd May 2021. More than participants from the college took part in the said competition.







HackerEarth LDCE team organized a webinar on "How to Grab Opportunities as a Student" on 19th June 2021 at 6:30 p.m. Students from various institutes were benefited from the webinar.

- Prof. J. P. Vasani, Automobile department along with students and Dr. Mrunalkumar D. Chaudhari, Mechanical Engineering Department has filed and published a patent on "Floating Trash Collecting Device", in Indian Patent Journal with application number: 202121021196 in May 2021.
- Prof. J. P. Vasani, Automobile department along with students Dr. Hiren M. and Gaiera, Mechanical Engineering filed Department has and published patent on "Grinding attachment For Vertical Drilling Machine", in Indian Patent Journal application number:202121023735 in May 2021
- Prof. B. H. Parmar filed and published a complete patent on "NIVARAN NON INVASIVE VITAL SIGN & RESPIRATORY ANALYZER" in Indian Patent Office, filing date: 25 April 2020, publication date: 18 June 2021.
- Prof. B. H. Parmar filed and published a complete patent on "PRAN PROTECTIVE RESPIRATORY AUXILIARY NODE" in Indian Patent Office, filing date: 9 May 2020, publication date: 21 May 2021.

- In the Chemical Engineering
  Department 4 SSIP projects of Rs
  412000/- are undergoing. The
  Department is also conducting an
  Environmental audit of 3 industries.
- Speaker Mr. Manoj R (Product Manager at Looping HQ) has delivered a talk on skill-building from the right stage and grab the opportunities at the right moment.

• Faculties of the electrical department have done testing of different industrial products as per IS worth rupees 16500/-.



- The Plastic Technology Department arranged an online "Awareness program on SSIP" for the students of the 5th Semester on the 23rd June.
- Prof. A. D. Bhatt is currently researching "Microwave Vulcanization of Etrudate" and "Preparation of Rubber Liner for railway Application".

- Prof. S. J. Padhiyar is researching "Rubber EMI Shielding" as novel development in the Rubber cable industry.
- Prof. G. G. Bhatt is currently researching "Storage of FOL in operational Conditions in Defence sector" and "Fire resistance PU foam".
- Prof. R. Y. Modan is currently researching "compositional analysis of a feedstock for natural rubber and other bioproducts".
- The environmental department also has filled/published patents during June & July 2021.

Sr. No.	Name of Invention	Patent Application No	Date of Application	Name of Inventors
1.	Smart Dustbin for Solid Waste	202121025884	10-06-2021	Jigar Govindbhai Chavda, Parth Rajendra Bhutiya, Ankit Dharmraj Yadav, Sahil Dharmendrakumar Patel, Bina Birenkumar Patel
2.	Modular Hydroponic Assembly for Wastewater Treatment	202121030282	06-07-2021	Bina Birenkumar Patel, Drashti Dineshkumar Amin, Bhavik Bhupatbhai Rajgor, Neel Kishorbhai Patel, Bhumi Ashkaran Gagnani, Kunj Himanshu Patel, Pruthvi Kiranbhai Barot

# **FACULTY ACHIEVEMENTS**

- Prof. A. G. Hansora has successfully completed the course 'Soft Skill Development' with a consolidated score of 77% (Top 5%) (Course duration 8 weeks: Jan-Mar 2021) (SWAYAM.GOV.IN).
- Prof. R. J. Jani, Head Automobile
   Engineering Department, has
   delivered an expert lecture on
   "Recent Trends in Alternative
   fuels" at GUJCOST Sponsored
   STTP on "Advances & Latest
   Trends in Automobile
   Engineering" organized by U V
   Patel College of Engineering,
   Ganpat University on
   15/04/2021.
- Ms. J. S. Kamble organized and delivered a session on "Orientation on How to ace your Summer Internship & a Career Talk" on 6th April 2021 in association with INTERNSHALA, AICTE, MHRD.



- Dr. P. H. Rana, Professor, and Head of Chemical Engineering Department delivered an expert lecture on "Waste to Valuables for Sustainable Development" delivered Chemical at Engineering Department, Government Engineering College, Bharuch at the STTP on "The Role of Green Chemical Technology in Sustainable Development" on 16/04/2021.
- Prof. A. D. Bhatt attended an online Webinar on "Failure of Rubber Products" scheduled for 24th June 2021, organized by WESTERN REGION - AIRIA.



- As a part of services to the community, Prof. Zishan Noorani has contributed to the awareness program for the Covid-19 vaccination and helped in the registration process at Juhapura, Ahmedabad. It's been noted by the Gujarat Indian Express in the 7th June 2021 issue.
- Prof. Utkarsh Pancholi, Bio-Medical department,
   participated in one day webinar
   on "Future Prospects of Biomedical Engineering", jointly organized by ACS college of Engineering, Bangalore on 23rd June 2021.
- Prof. Ronak R. Patel was awarded a Ph.D. degree by Nirma University, Ahmedabad.



- Career Counselling Session

  "What After Standard 10th?" was
  conducted by DHC Education
  Committee at "Anjuman Sardariya
  (Boarding)" near Vishala Circle. In
  that session Prof S. H. Sundrani
  (GP, Ahmedabad), Prof G. R. Khunt
  (GP, Surendranagar), and Prof
  Zishan Noorani (LDCE,
  Ahmedabad) delivered speeches to
  motivate and guide the students
  for Higher Education.
- Prof. B. D. Patel has attended Webinar on "Design Thinking" organized by L.D.C.E., SSIP Cell on 21st June 2021.
- Prof. R. N. Desai has attended Webinar on "Design Thinking" organized by L.D.C.E., SSIP Cell on 21st June 2021.

- Ms. Rena N. Shukla has delivered an expert lecture at a Webinar Series for Civil Engineers: Global Employability through project works Organised by Birla VishvakarmaMahavidyalaya, V.V.Nagar on the topic: **Employment** opportunities in Government and Private Sector in Gujarat on 23rd June 2021.
- Prof. P. N. Chavda attended
  Webinar on "Polymer
  Characterization by Analytical
  Pyrolysis Technology" organized by
  the research & innovations
  webinar on 25th June 2021.
- Prof. P. N. Chavda attended Webinar on "Graphene Technology
   Applications: A Review" organized by research webinars on 24th June 2021.
- Dr. N. M. Bhatt delivered an online expert lecture on 'Recent Developments in Solar Refrigeration and Air-conditioning' during STTP on Recent Trends and Scope in Solar Technology organized by Shree Swami Atmanand Saraswati Institute of Technology on 17/05/2021.

- Dr. N. M. Bhatt, Head Mechanical department, delivered an online expert lecture on 'Development of Energy Efficient, Low-Cost Solar Air Heaters for Heat Delivery up to 200°C' during STTP on Recent Development on Renewable Energy organized by GEC Bharuch on 6/04/2021.
- Dr. N. M. Bhatt delivered an online expert lecture on 'Development of Energy Efficient, Low-Cost Solar Air Heaters' during STTP on Recent and Scope Trends in Solar Technology organized by Shree Swami Atmanand Saraswati Institute of Technology on 18/05/2021.
- Dr. N. M. Bhatt is appointed as a member of a committee constituted by the Directorate of Technical Education to propose a draft policy to operate Government Technical High Schools on PPP mode. The committee has submitted the draft policy to the DTE.

- Prof. G. G. Bhatt attended an online Webinar on "Rubber Chemistry and Technology Virtual Seminar" on June 17th, 2021 organized by the Chemical Institute of Canada.
- Prof. G. G. Bhatt actively participated as a mentor in the M2M Defence challenge on 4th April 2021.
- Prof. G. G. Bhatt attended an online Webinar on Accelerating Innovation for Polymeric Materials with Molecular Modeling on 8 April 2021, organized by CHEManager team Wiley.
- Prof. S. J. Padhiyar has coordinated and identified the Rubber Industries and successfully carried out the 2
   week - Student's Internship program for Rubber Technology students during May-June 2021.
- Prof. S. J. Padhiyar has attended Webinar on "Design Thinking" organized by L.D.C.E., SSIP Cell on 21st June 2021.

- Prof. G. G. Bhatt attended an online Webinar on Chemlok Applications and Troubleshooting on April 30th, 2021, organized by Parker LORD.
- Prof. G. G. Bhatt attended an online Webinar on "Polymer Characterization by Analytical Pyrolysis Technology" on April 30th, 2021 organized by Research and Innovations webinars.
- Prof. G. G. Bhatt attended an online Webinar on "SILICON RUBBER AND ITS PROPERTIES, USES AND MANUFACTURING" on 22nd April 2021 organized by WESTERN REGION – AIRIA.
- Prof. R. Y. Modan has been nominated as a Technical volunteer at 'Cyber AASHVAST' launched by Home Minister, Amitbhai Shah which is the country's first Cyber Crime Prevention Unit.
- Prof. A. D. Bhatt and Prof. G. G. Bhatt attended an online Webinar on "Moulding of Rubber Products" scheduled on 9th April 2021, organized by WESTERN REGION AIRIA.

- At the institute level, Dr. S S
   Pathan coordinated Swayam
   NPTEL Local Chapter activities.
   Total 186 members have
   registered for 389 NPTEL MOOC
   Courses for the semester of Jan Apr 2021.
- Prof. S. B. Shah attended virtual webinars at Arasu Engineering College on "RESEARCH ARTICLE WRITING" on 18/05/21 and "CNC MACHINE TOOLS AND BASIC PROGRAMMING" on 21/05/21.
- Dr. Mihir V. Shah has coordinated a webinar for faculties on "DESIGN THINKING" held on 21st June 2021 under the "INSTITUTION'S INNOVATION COUNCIL SSIP"
- Dr. Mihir V. Shah rendered his service at SAC ISRO on 26th JUNE 2021 as an external DPC expert member for the promotion of Scientists/ Engineers SC to SD cader.

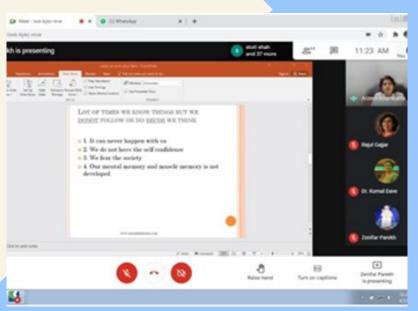
- Dr. Mihir V. Shah rendered his service at PRL on 29th JUNE 2021 as an external DPC expert member for the promotion of Scientists/Engineers SD to SE on the online meeting.
- Dr. Pankaj P. Prajapati has conducted an expert session on Automatic Analog VLSI Circuit Design in ATAL sponsored FDP "VLSI Design, Verification and Testing" held from 7/6/2021 to 11/6/2021 at Government Engineering College, Rajkot.
- Dr. Pankaj P. Prajapati has Contributed as a reviewer in SCOPUS indexed International Journal of Applied Metaheuristic Computing (IJAMC).

# **COMMUNITY ENGAGEMENT**

(NSS, NCC, Clubs)

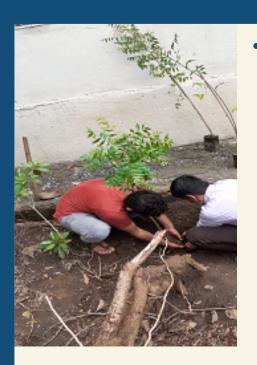
• SAE LDCE Club has celebrated World Environment day planting saplings on 05/05/2021, 15 students have planted saplings at their place and taken an oath to take care of plants.





lecture expert on safety woman at workplace' by Ms. Ruzan Khambatta Social disruptor and a true blue reformist working as an action agent for women safety, security, was organized by Dr. Komal G Dave - presiding officer of ICC at LDCE campus on 17th April 2021, through Google meet platform. More than 60 participants took advantage of the lecture and made fruitful discussions with experts on women issues.

• Dr. Rajesh Jain, Civil department, has worked in Dhanvantari Covid Hospital (DRDO - GU Covid hospital) to manage various activities in the hospital from 15/04/2021 to 02/06/2021.



Engineering
Department have done tree plantation in the garden specified to the department. It is merely the act which adds up the values in the environment of mother earth.



# **NCC ACTIVITIES**

- CPL Kathan Kotadiya and LCPL Ankur Jain were the cadets who volunteered to assist the front line workers during the Corona outbreak. CPL Kathan also distributed masks to local vendors during the Unlock-01 Phase in 2020.
  - NCC cadets from 1 GUJ CTC actively participated in the #EkMainSauKeLiye campaign and contributed to its various phases of activities.





 Appreciation work was carried by NCC cadets for the bravery of the front line workers like doctors and policemen who had served during the crisis and cards were created for their appreciation.



 For the celebration of 'Kargil Vijay Diwas', handmade and printed cards were created by the cadets which were then shipped off to Kargil after the flag off from the Hon'ble Chief Minister of Gujarat.



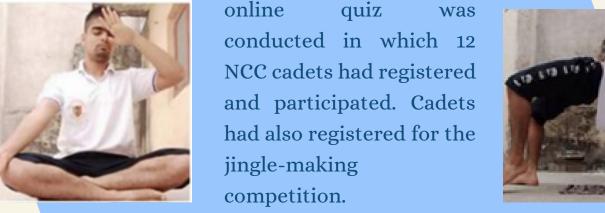
 A total of 8 cadets have registered for the 'I am a young warrior' campaign conducted by Yuwaahindia and UNICEF INDIA.

- Awareness regarding the prevention of Covid was broadcasted to friends and family by the NCC Cadets via telephonic conversations.
- GUJARAT INDUSTRIAL DISASTER MANAGEMENT' an online course was attended and completed by 20 cadets from 1 GUJ COMPO (T) COY. The course focused on types, prevention and relief measures to be undertaken during a disaster.



Various events were conducted for the celebration of international yoga dav 2021, these included yoga done by asana poses cadets and then later on uploaded on Twitter. An online quiz was conducted in which 12 NCC cadets had registered and participated. Cadets









• A recent tree plantation activity was conducted in which the cadets planted saplings near their home and also made the general public aware about the benefits and necessity of tree plantation.

• All of the cadets have registered on the Digital forum of the NCC.

### **NSS ACTIVITIES**

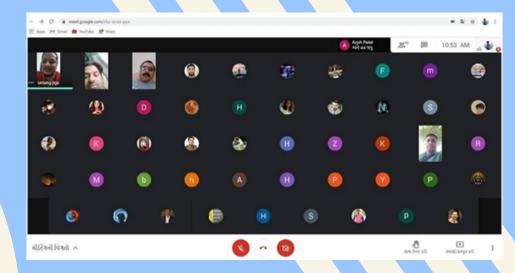




 Institute celebrated 130th Birth Anniversary of Dr. B.R. Ambedkar by organizing virtual a expert talk related to 'ભારતમાં બાબાસાહેબ આંબેડકરનું પત્રકારત્વ' with Shri Jignesh Parmar (Chief Reporter, (સંદેશ) Sandesh Newspaper) as orator. NSS LDCE coordinated the event.

 Tika Utsav' was a social media awareness campaign by NSS LDCE for promoting safety of Covid-19 Vaccine and appealed to get vaccinated. A poster making competition was organised by NSS LDCE as a part of its vaccine awareness campaign 'Tika Utsay'. In addition to this, NSS LDCE volunteers also created a video message the vaccine promote awareness campaign 'Tika Utsav'.

# Expert talk on Dr. B.R. Ambedkar (April 14, 2021)



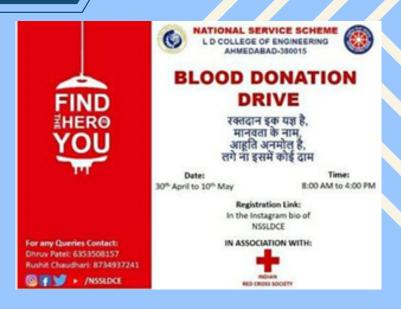
# Webinar on Financial Health Awareness (April 14, 2021)



• NSS LDCE alongside
Yield Street organized a
webinar on 'Financial
Health Awareness' to
acknowledge students
with basics of stock
market and importance
of passive income.

# Blood Donation Drive: Find Hero In You (April 30 - May 27, 2021)





NSS LDCE had successfully completed a 28
 Days long Blood Donation Drive in association with the Indian Red Cross Society. During the lockdown the donors weren't able to step out of their house in fear of catching the virus, hence a mobile van was arranged with all the facilities required for the process of blood donation.

# AYUSHYA - Plasma Donation Drive (May 6, 2021)



• NSS LDCE had organized a plasma donation campaign in association with the Gilharee foundation. The campaign was done by keeping the data of potential plasma donors and providing the ones in need keeping the privacy of donors and the other ends' needs in check.



### CORONASAHAY.COM (May 23, 2021)



During the second wave of COVID, NSS LDCE volunteer Vrutik Kadia lost the fight against CORONA. It was a great loss for the institute & NSS LDCE. He was a very sincere active volunteer. He admired by all NSS volunteers & his colleagues. NSS LDCE had launched a website coronasahay.com in association with MANTIC LABS in memory of our volunteer Vrutik Kadia. Through this website, the verified leads for oxygen supplies, blood banks, plasma banks, medicines, Tiffin services along with official websites for hospital beds availability was provided and the main motive of this website is to help people to save their loved ones.

# World Environment Day - Reimagine, Recreate, Restore (June 5, 2021)

 NSS LDCE held a social campaign on media World **Environment** where thev Day preached about acknowledging dire need to adopt a sustainable lifestyle and practice each day as an environmental day.



## Yaadein - Memorial for Vrutik Kadia (June 17 - June 19, 2021)

- NSS LDCE conducted a fund-raising event "Yaadein" in memory of NSS frontline volunteer, Vrutik Kadia who lost his life due to covid-19. Yaadein had four sub-events which were all favorite activities of Vrutik Kadia.
- 1. Hasna mana hai A stand-up comedy competition
- 2. Memesta Meme making competition
- 3. Shayrana A Shayari faceoff competition
- 4. Dialogue Baazi A group faceoff with dialogues in reply
  - The participation fees collected from the participants were given to Vrutik Kadia's family.

## Celebration of 73rd Foundation Day of LDCE (June 19, 2021)

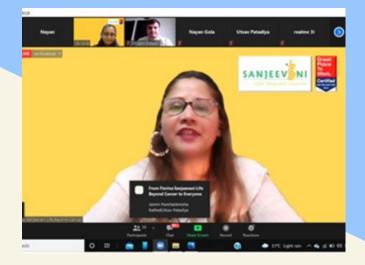


• LDCE celebrated its Foundation Day (20th June) by inviting esteemed alumni of the institute. Shri Dipesh Shah, OSD, Office of Chief Minister, Gujarat State, Shri Nilesh Desai, Director, SAC-ISRO, Ahmedabad, and Shri Sandip Engineer, MD, Astral PolyTechnik Ltd, Ahmedabad were invited. They shared their success story & motivated faculty members & students. Dr. R. K. Gajjar had given an overview of college activities & given a roadmap of the future. Dr. Ashwin Thakkar stated the achievements milestones of LDCE, Dr. C Sanghvi extended a vote thanks.

NSS LDCE along with LDCE Alumni and NCC LDCE coordinated this online meet to celebrate the great legacy of the institute.

## Cancer prevention and healthy lifestyle (June 20, 2021)

NSS LDCE along with "Sanjeevani - Life Beyond Cancer" organized an online regarding webinar Prevention Healthy and Lifestyle" where volunteers were acknowledged on how to detect cancer in their body during its early stage and the measures to prevent cancer.



#### 7th International Yoga Day (June 21, 2021)

• LDCE celebrated 7th International Yoga Day on June 21, 2021, with Meenu Shevkani, a Yogacharya, and Naturopath where volunteers were taught basic yoga asanas to improve their lungs and boost their immunity. 40 faculty members & NSS volunteers had participated in the celebration. It was celebrated on campus and also online. More than 400 students & faculty members joined the event online. NSS LDCE coordinated the complete program.



- Prof. S. J. Padhiyar has successfully worked as a "Laundry Monitoring Committee Coordinator" at "DHANVANTARI COVID HOSPITAL (DRDO GU COVID Hospital- DGCH)" during May-June, 2021.
- Prof. R. Y. Modan successfully made Volunteer groups with Dr. Jeet Mangroliya, Dr. Meet Ghonia, Dr. Riya Nanavati & Dr. Rakesh Jiyani named as 'Swastham Family' on social media to lend a helping hand to Covid patients.

## PAPERS PRESENTED/PUBLISHED

- Dr. Rajul K. Gajjar, Prof. Poonam I. Modi, and Ekta Mathasuriya (PG Student) published a research paper titled "OPTIMAL CONFIGURATION OF DIAGRID AND OUTRIGGER STRUCTURAL SYSTEMS FOR TALL BUILDINGS" in International Advanced Research Journal in Science, Engineering and Technology, Vol 8, Issue 5, May 2021, ISSN (Online) 2393-8021, DOI: 10.17148/IARJSET.2021.8566.
- Prof. P. G. Patel & Nisarg Gandhi (PG Student) published a paper titled "PUSHOVER ANALYSIS OF POST TENSIONED FLAT SLAB BUILDING USING EQUIVALENT FRAME METHOD" in International Advanced Research Journal in Science, Engineering and Technology, Volume 8, Issue 4, April 2021, pg 296-305, ISSN (Online) 2393-8021 ISSN (Print) 2394-1588; DOI: 10.17148/IARJSET.2021.8450.
- Prof. D. R. Tarachandani & Ashwin R. Sharma (PG Student) published a review paper on "STUDY OF REDUCTION IN CORROSION OF REBARS IN THE INTEGRAL WATERPROOFED CONCRETE" in Journal of Emerging Technologies and Innovative Research May 2021, Volume 8, Issue 5, ISSN No: 2349-5126.

- Prof. Priti J. Mehta & Beena Zala (PG Student) published a paper titled "ANALYSIS FOR SEISMIC AND WIND EFFECT ON MULTI RCC STORIED AND STEEL-CONCRETE **COMPOSITE** RESIDENTIAL BUILDING USING ETABS" in Journal of Emerging and technologies innovative Research, Volume 08, Issue 5, May-2021, ISSN No. 2349-5162, Paper ID JETIR2105710.
- Prof. P. G. Patel & Dhruv Mistry (PG Student) published a paper titled "ANALYSIS SEISMIC OF **POUNDING BETWEEN** RC BUILDINGS WITH NON-ALIGNED SLABS" in International Advanced Research Journal in Science, Engineering and Technology, Volume 8, Issue 4, April 2021, pg ISSN (Online) 2393-316-321, 21.8453.8021 ISSN (Print) 2394-1588; DOI: 10.17148/IARJSET.20
- Ashwin G. Hansora & Anshuman R. Prajapati (PG Student) published a paper titled "PARAMETRIC STUDY ON DIAGRID STRUCTURAL SYSTEM WITH AND WITHOUT SHEAR WALLS" in International Journal of Civil, Mechanical and Energy Science, Volume 7, Issue 3, May 2021, pg. 1-9, ISSN: 2456-2319, dx.doi.org/10.22161/ijcmes.73.1

- Prof. D. R. Tarachandani & Dharmik Vansjaliya (PG Student) published a review paper "SEISMIC BEHAVIOR OF MULTI-STORIED HYBRID BUILDING WITH DIFFERENT TYPE OF PARTITION WALLS" in International Advanced Iournal in Science. Research Engineering and Technology Vol. 8, Issue xx, 2021, ISSN (Online): 2393-8021; ISSN (Print): 2394-1588DOI: 10.17148/IARJSET.2021.8101
- Prof. Kamini Parmar & Jignesh R. Prajapati (PG Student) published a paper titled "PARAMETRIC STUDY OF G+23 BUILDING WITH RCC AND COMPOSITE STRUCTURE UNDER EFFECT OF SEISMIC AND WIND EFFECT" in International Journal of Education All Research Scientific Methods (IJARESM), Volume 9, Issue 5, May -2021, Impact Factor: 7.429, Pg.689-697, ISSN NO: 2455-6211.
- Dr. M. V. Shah, Prof. P. J. Mehta & Shivani Patel published a paper titled "STUDY ON **EARTH** PRESSURE DISTRIBUTION AND DISPLACEMENTS OF NARROW REINFORCED EARTH (RE) WALL STATIC AND CYCLIC UNDER LOADING" in Springer's 'Lecture Notes in Civil Engineering book series (LNCE, volume 117) under theme 'Local Site Effects and Ground Failures', Print ISBN978-981-15-9983-5, DOI: 10.1007/978-981-15-9984-2\_31, pp 355-367.

- Prof. Poonam I. Modi and Labdhi Doshi (PG Student) published a titled research paper "COMPARATIVE ON STUDY **ISOLATED FOUNDATION** OF SUSPENSION **AND TENSION** TRANSMISSION **TOWER UNDER** DIFFERENTIAL SOIL CONDITIONS" in International Advanced Research Journal in Science, Engineering and Technology, Vol 8, Issue 5, May 2021, (Online) 2393-8021, 10.17148/IARJSET.2021.8538.
- Prof. Payal H. Andharia & Jayesh Malviya (PG Student) published a paper titled "PARAMETRIC SEISMIC ANALYSIS OF **ELEVATED** CIRCULAR WATER TANK FOR VARIOUS STAGING PATTERNS" in International Advanced Research Journal in Science, Engineering and Technology, Volume 8, Issue 4, April 2021, pg 306-310, ISSN (Online) 2393-8021, ISSN (Print) 2394-1588; DOI: 10.17148/IARJSET.2021.8451.
- Prof. Payal H. Andharia & Shivani Ranje (PG Student) published a paper titled "PARAMETRIC STUDY OF ANALYSIS AND DESIGN OF SEGMENTAL **PRECAST** BOX GIRDER TYPE SUPERSTRUCTURE BRIDGE" in International Advanced Research Iournal in Science, Engineering Technology, Volume 8, Issue 4, April 2021, pg 345-351, ISSN (Online) 2393-8021, ISSN (Print) 2394-1588; DOI: 10.17148/IARJSET.2021.8458.

- Prof. Kamini Parmar & Kajol Trinekar (PG Student) published a paper titled "SEISMIC ANALYSIS OF ECCENTRICALLY BRACED STRUCTURES" in the Journal of Emerging Technologies and Innovative Research, Volume 8, Issue 5, May-2021, Impact Factor-7.95, ISSN: 2349-5162.
- Prof. Poonam I. Modi & Deep Patel (PG Student) published a review "PERFORMANCE on paper STONE WASTE MASONRY UNIT IN BOND. **DURABILITY** AND COMFORT" THERMAL in Compliance Engineering Journal, Volume 12, Issue 5, 2021, pg 195-202, ISSN NO: 0898-3577; SJIP ( 6.1); DOI:16.10089.CEJ.2021.V12I5.285311.3 598.
- Dr. S. R. Shah has co-authored the 6th edition of the book named "STOICHIOMETRY, MATERIAL, AND ENERGY BALANCE COMPUTATIONS" along with Prof. B. I. Bhatt and Prof. S. B. Thakore published by McGraw Hill. The book is widely used in all renowned universities as a textbook which is helpful for 2nd-year students of Chemical engineering.
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- Prof. Jayendra P. Vasani has published a paper on "DEVELOPMENT **AND MODIFICATION** OF WHEEL ALIGNMENT SETUP FOR COST EFFECTIVE AND USER-FRIENDLY SOLUTION" in International Journal of Engineering and Technology, Volume 8, 04/04/2021.
- R. N. Shukla & Sachin Jhanwar have published a paper titled "REVIEW OF FIRST AND LAST MILE CONNECTIVITY FOR BUS LINE" in International Advanced Research Journal in Science, Engineering and Technology ISSN (online) 2393-8021 ISSN (print) 2394-1588, Impact Factor DOI 6.612, 10.17148/IARJSET.2021.8536, Indexed Microsoft Academic, Google Scholar, Index Copernicus, NAAS Accredited Science **Journal** Thomson Routers ID I-8645-2017 VOLUME 8, Issue 5, Pg:220-225, May 2021
- R. N. Shukla يج Ardeshana Brijkumar Arvindbhai have published titled a paper "PERFORMANCE **ANALYSIS** SIGNALIZED ROUNDABOUT AND DEVELOPMENT OF MICROSCOPIC **SIMULATION** MODEL **FOR** IMPROVEMENT" in Compliance Engineering Journal UGC (UGC CARE) APPROVED Group-II journal; ISSN NO: 0898-3577, Scientific Journal **Impact** Factor-6.2, DOI:16.10089.CEJ.2021.V12I5.285311.3 593 , Volume 12, Issue 5, Pg: 137-149,MAY-2021

- Prof. H. N. Pandya was awarded the best presentation of the session and received Rs. 1500/- at "An International Conference on Green Chemistry and Engineering towards Sustainable Development of Industries" organized by Sardar Vallabhbhai National Institute of Technology, Gujarat.
- Shilpa Mehta, Hetal A. Joshiara have published a paper titled "LOAD BALANCING IN CLOUD COMPUTING: A COMPREHENSIVE SURVEY ON RECENT TECHNIQUES" in the International Journal of Advanced Trends in Computer Science and Engineering (ISSN 2278-3091) in Volume 10, No.2, March April 2021.
- A Research paper of Dr. A. J. Kshatriya with Neha Parmar, Abhishek Sinha, and S. K. Pathak on "DESIGN & SIMULATION OF HIGHTEMPERATURE BLACKBODY SOURCE FOR CALIBRATION OF MICHELSON INTERFEROMETER ECE DIAGNOSTIC" is accepted for publication in "Fusion Engineering and Design" Journal.
- Dr. U. A. Patel published a paper in Scopus indexed journal on the topic "NUMERICAL INVESTIGATION FOR THE DETERMINATION OF EQUAL VIBRATION AMPLITUDE OF THE

- LINEAR UNDAMPED VIBRATING SYSTEM USING CONVENTIONAL AND GROUND HOOK DYNAMIC VIBRATION ABSORBER BY MODIFICATION IN THE DAMPING FACTOR AND MASS RATIO" in the International Journal of advanced science and technology, ISSN2005-4238 E ISSN 2207-6360.
- R. N. Shukla has published a paper titled "ANALYSIS OF PASSENGER TRIPS BY PUBLIC TRANSPORT-BUS TRANSIT IN WEST ZONE OF AHMEDABAD" in Psychology and Education journal SCOPUS Cite Score0.2(2019),ISSN1553-6939,DOI:http://psychologyandeduc ation.net/pae/index.php/pae/article /view/5141 Volume:58, No.5 (2021), Pg:139-144, JUNE 2021
- R. N. Shukla & Hetal R Khasiya have published a paper titled "ANALYSIS OF PARAMETERS AFFECTING PRIVATE VEHICLE OWNERSHIP BY CITIZENS IN URBAN AREA" in Psychology and Education journal SCOPUS Cite Score 0.2 (2019), ISSN 1553-6939, DOI: http://psychologyandeducation.net/pae/index.php/pae/article/view/513 1, Volume:58, No.5 (2021), Pg:95-99, JUNE 2021.

- R.N.Shukla & Ardeshana Brijkumar Arvindbhai have published a paper "A titled **REVIEW PERFORMANCE ANALYSIS** OF SIGNALIZED ROUNDABOUT USING MICRO-SIMULATION TECHNIQUE" in International Advanced Research Journal in Science, Engineering and Technology ISSN (online) 2393-8021 ISSN (print) 2394-1588, Impact Factor DOI 6.612, 10.17148/IARJSET.2021.8536, Indexed in Microsoft Academic, Scholar, Index Copernicus, NAAS Accredited Science Journal Thomson Routers ID I-8645-2017 VOLUME 8, Issue 5, Pg:157-160, May 2021
- R.N.Shukla & Sachin Jhanwar have published a paper titled "FIRST AND LAST MILE CONNECTIVITY FOR LINE" Compliance BUS in Engineering Journal UGC (UGC CARE) APPROVED Group-II journal; 0898-3577, **ISSN** NO: Scientific **Journal Impact** Factor-6.2,DOI:http://ijceng.com/gallery/cej %203776f.pdfVolume 12, Issue Pg:296-311, MAY-2021
- V. J. Chitaria & Utsav Prajapati have published a paper titled "EFFECTIVE UTILIZATION OF ROAD SPACE ON THE SELECTED ROAD LINKS OF AHMEDABAD CITY" in Compliance Engineering Journal ISSN No.: 0898-3577, Volume 12, Issue 7, July -2021

- Dr. M. M. Shaikh & Parth Sinroza have published a paper titled "A REVIEW ON CLIMATE CHANGE IMPACT ANALYSIS USING STATISTICAL TOOLS" at HYDRO 2020- International Conference (Hydraulics, Water Resources, and Coastal Engineering).
- Dr. M. M. Shaikh & P. K. Lalwani have published a paper titled "LINEAR TREND ANALYSIS OF METEOROLOGICAL **DATA** AT WESTERN INDIA" 1st International Conference on "Emerging Research and Innovations in Civil Engineering".
- Dr. M. M. Shaikh & Parth Sinroza have published a paper titled "TREND ANALYSIS OF RAINFALL AND TEMPERATURE FOR SEMI-ARID WESTERN REGION OF INDIA" at the 1st International Conference on "Emerging Research and Innovations in Civil Engineering".
- V. J. Chitaria & Riya Trivedi have published a paper titled "DEVELOPING A RELATIONSHIP BETWEEN TRAFFIC VOLUME AND VEHICLE QUEUE LENGTH FOR URBAN ROAD" at 1st International Conference on "Emerging Research Innovations in Civil Engineering" ISBN no. 978-93-54733-18-5.

- Dr. Ankit K. Shah has published a research paper titled "DESIGN BOUNDED ROBUST CONTROLLER USING HJB SOLUTION FOR THE NONLINEAR HYBRID DYNAMICAL SYSTEMS" in European Journal of Control, approved Elsevier journal, Volume 60,2021, pages 65-77, ISSN 0947-3580 on April 2021.
- Prof. Vandana V. Patel and Dr. Ankit K. Shah have published a book chapter titled "MACHINE LEARNING **FOR BIOMEDICAL** PROCESSING," **SIGNAL** Elsevier book., approved Machine Learning and the Internet of Medical Things in Healthcare, Academic Press, 2021, Pages 47-66, ISBN 9780128212295, April 2021.
- Dr. K. G. Dave and Prof. J. G. Parmar have published a technical paper on "MULTI OBJECTIVE OPTIMIZATION OF MACHINING PARAMETERS IN END MILLING OF AISI1020" in 'International Journal of Innovative Technology and Exploring Engineering (IJITEE)', ISSN: 2278–3075 (Online), Volume-10 Issue-8, June 2021, Page No. 54-63.
- Dr. K. G. Dave and Prof. Maulik Patel have published a technical paper on "STUDIES THE TWIN STIR TECHNOLOGY AND WELDED PARAMETERS OF FRICTION STIR WELDING ON -

- AA7108 T79" in Journal of Xi'an University of Architecture & Technology, Volume XIII, Issue 6, JUNE 2021 ISSN No: 1006-7930 pp 592-598.
- Dr. K. G. Dave and Prof. Maulik Patel have published a technical paper on "GENETIC ALGORITHM-BASED OPTIMIZATION OF FRICTION STIR WELDING PROCESS PARAMETERS ON AA7108" in 'International Journal of Innovative Technology and Exploring Engineering', ISSN: 2278–3075 (Online), Volume-10 Issue-8, June 2021, Page No. 47-53.
- Ms. Mamta Patel (Ph.D. student -GTU) and Dr. K. G. Dave have published a technical paper on "AN INSIGHT OF COMPACTED GRAPHITE **IRON** (CGI) CHARACTERISTICS AND ITS PRODUCTION: A REVIEW" in 2ndInternational Conference Recent Advance in Manufacturing, SVNIT, Surat during 10-12 June 2021.
- In International Conference on GCESDIP organized at SVNIT, Surat from 16 to 18th June 2021, Prof M. K. Vyas presented a paper with a group of students Raj Tank, Jimish Thakkar, and Maharshi Shukla titled "TECHNIQUES TO MITIGATE THE IMPACT OF PLASTIC WASTE".

- Prof. R. N. Desai has published a research paper on "SNOV-DNOV MESH SORTING FOR MULTI-OBJECTIVE OPTIMIZATION" at the 2nd International Conference on Mathematical Modeling, Computational Intelligence Techniques, and Renewable Energy, organized by PDPU in April 2021.
- Prof. G. N. Sutaria and Vaibhav Badheka have published a review paper on "TECHNICAL REVIEW ON EXPERIMENTAL INVESTIGATION OF FUEL BLENDS IN DIESEL ENGINE" in International Journal of All Research Education and Scientific Methods (IJARESM), Volume 9, Issue 4, April -2021, pp. 2873-2879, ISSN: 2455-6211.
- Nilesh Pancholi • Dr. presented research paper titled "DECISION-**MAKING** ON **MAINTENANCE** PLANNING **USING** PSI BY DISCRIMINATING **CRITICAL** COMPONENTS AND RELIABILITY MODELING THROUGH SHOP-FLOOR FAILURE DATA" at 24th FAI-International Conference on DBSMD (Scopus indexed Springer Proceeding) through online mode during 25-27 June 2021.

- Prof. M. K. Vyas, Raj Tank, and Jimish Thakkar have presented a paper titled "ROAD MAP- WASTE TO WEALTH" at GCESDIP International Conference held at SVNIT Surat from 16 to 18th June 2021.
- Dr. B. S. Sedani and Dr. N. A. Kotak have published a paper titled "DESIGNING AND SIMULATION OF 30GBPS FSO COMMUNICATION LINK UNDER DIFFERENT **ATMOSPHERIC** AND CLOUD CONDITIONS", in International Journal of Engineering Trends and Technology, Scopus indexed journal, vol. 69, Issue 5, ISSN: 2231-5381, May 21
- Dr. B. S. Sedani and Dr. N. A. Kotak have published a paper titled "CRITICAL REVIEW ON EFFECT OF 5G TECHNOLOGY ON COVID-19 AND HEALTH ISSUES" in Journal of Scientific Research, UGC approved Journal, Vol. 13, no.2, ISSN: 2070-0245, May 2021
- Dr. Sanjay B. Prajapati has written a manuscript titled "HIGH-PERFORMANCE COMPUTING-IN-MEMORY ARCHITECTURE USING STT/SOT-BASED SERIES TRIPLE-LEVEL CELL MRAM" and it is accepted for publication in IEEE Transaction on Magnetics, May 2021

• Prof. Bina Patel from the department Environmental has published a paper on "OPTIMIZED" **HYBRID UPFLOW ANAEROBIC** SLUDGE BLANKET WITH **POST** TREATMENT **PROCESSES FOR** WASTEWATER", in Current World Environment, UGC-CARE approved group-II journal, ISSN:0973-4929, Volume-16, Issue-1, 2021, Pg. 282-303,

https://doi.org/10.12944/CWE.16.1.29

• Dipak Chopara (PG student ME-CAD-CAM and scientist at ISRO, Ahmadabad) and Dr. K. G. Dave have published a technical paper on "DESIGN AND DEVELOPMENT OF S BAND RADIO FREQUENCY CAVITY FILTER USING (RF) FIBER CARBON REINFORCED POLYMER (CFRP) MATERIAL FOR COMMUNICATION SATELLITE" in 2nd International Conference on Recent Advance in Manufacturing, SVNIT, Surat during 10-12 June 2021.

## **PROFESSIONAL DEVELOPMENT**

(STTP/FDP/Workshop/Conference etc. attended only/)

<u>Sr.</u>	<u>Title</u>	Name of	<u>Department</u>	Organized by	<u>Duration</u>
<u>No.</u>		<u>Faculty</u>			
1.	Novel Advances in Ingredients of sustainable Construction Materials (NAISCM'21)	Major. Dr. C. S. Sanghvi, Prof. P. G. Patel, Prof. D. R. Tarachandani, Prof. M. G. Vanza, Prof. P. J. Mehta, Prof. A. J. Shah, Prof. D. H. Raval, Prof. K. A. Parmar, Prof. A. G. Hansora, Prof. Dr. M. V. Shah, Prof. P. I. Modi, Prof. U. K. Patel, Prof. P. I. Modi, Prof. P. H. Andaria, Prof. S. R. Singh	Applied Mechanics	Applied Mechanics Department	01/06/2021 to 05/06/2021
2	Essentials of Online Teaching (Workshop)	Prof. P. H. Andharia		Dept. of Civil Engineering & Dept. of Electrical Engineering, Nirma University	29/06/2021 to 30/06/2021
3	Induction Training Programme Phase- II	Prof. R. R. Patel	Chemical Engineering	NITTTR, Bhopal	21/06/2021 to 02/07/2021
4	Future of Chemical Engineering	Dr. S. M. Dutta		IIT (ISM) - Dhanbad	19/03/2021 to 21/03/2021
5	Induction Phase II	Prof. R. A. Dayma	Computer Engineering	NITTTR, Bhopal	21/06/2021 to 02/07/2021
6	Security & Privacy: Trends and Directions	Prof. Z. Y. Noorani		AVPTI, Rajkot (Online Mode)	28/04/2021 to 04/05/2021
7	Applied Machine Learning and Data Science	Prof. Shital Solanki	IT	IIIT Dharwad (ATAL FDP)	17/05/2021 to 21/05/2021
8	Mobile and Cloud Security: Challenges and Direction	Prof. Shital Solanki		AVPTI Rajkot	03/06/2021 to 09/06/2021

<u>Sr.</u> <u>No.</u>	<u>Title</u>	Name of Faculty	<u>Department</u>	Organized by	<u>Duration</u>
9	Wastewater Treatment efficiency & Management	Dr. M. M. Shaikh Prof. Lalwani	Civil	VGEC, Chandkheda Ahmedabad (online)	26/04/2021 to 30/04/2021
10	Tools for Transportation Data Analysis & Modelling (TTDAM- 2021)	Prof. J. S. Kamble		NIT, Calicut (Online)	27/5/2021 to 1/6/2021
11	Innovative Pedagogical Practices in Higher Education"	Prof V. J. Chitaria		Lovely Professional University along with ATAL AICTE	21/06/2021 to 25/06/2021
12	Induction Programme Phase- II	Prof. Bina B. Patel	Environmental	NITTTR, Bhopal	21/06/2021 to 02/07/2021
13	Inculcating UHV in Technical Education	Prof. Manish C. Patel, Prof. V. V. Patel	IC	AICTE	22/03/2021 to 26/03/2021
14	NITTT – Module 1 – Orientation Towards Technical Education and Curriculum Aspects	Prof. B. D. Patel	Rubber Technology	NITTT & AICTE	01/04/2021 to 01/06/2021
15	NITTT – Module 1 – Orientation Towards Technical Education and Curriculum Aspects	Prof. S. J. Padhiyar		NITTT & AICTE	01/04/2021 to 01/06/2021
16	NITTT – Module 2 – Professional Ethics & Sustainability	Prof. G. G. Bhatt		NITTT & AICTE	01/04/2021 to 01/06/2021

Sr.	<u>Title</u>	Name of	<u>Department</u>	Organized	Duration
	1100		<u>Department</u>	_	Daration
<u>No.</u>		<u>Faculty</u>		<u>by</u>	
17	Webinar on "Advanced	Prof. Bharati G.	Plastic	MIT-WPU,	8th June
	Materials by	Basantani	Technology	Pune	2021
	Modifying Structure of	Prof. Kintu P.			
	Polymers"	Jain			
		Prof. Hetal C.			
		Shah			
		Prof. Stuti R.			
		Shah			
18	Online "Launch of	Prof. Hetal C.		Ministry of	8th June
	Awareness Generation	Shah		Environment	2021
	Campaign on Single-	Prof. Stuti R.		Forest &	
	Use Plastics 2021"	Shah		Climate	
				change with	
				FICCI	
19	Webinar on "How to	Prof. Kintu P.		CIPET,	12th June
	get quick Injection	Jain		Chennai	2021
	Molded Parts Within a	Prof. Stuti R.			
	week"	Shah			

## M. E. DISSERTATION

#### Applied Mechanics Department

<u>Sr.</u>	Name of Student	<u>Title</u>	Name of Guide
No.	P1-4- II	Outined On Commention of Dispuid	Da Das C Data I V
1	Ekta H. Mathasuriya	Optimal Configuration of Diagrid and Outrigger Structural Systems	Dr. Prof. Rajul K. Gajjar (Guide)
	Mathasuriya	for Tall Buildings	Prof. Poonam I. Modi
		for rail buildings	(Co-guide)
2	Iyer	Pushover Analysis of Elevated Steel	Dr. Prof. Rajul K.
	Sivaramasubrama	Silos	Gajjar (Guide)
	nian Visweswaran		Prof. Deepa H. Raval
			(Co-guide)
3	Shivani Ranje	Parametric study on analysis &	Prof. B. J. Shah,
	, ,	design of precast segmental box	Prof. P. H. Andharia
		girder type superstructure of	
		bridges	
4	Ashvini Mehta	Studies on Consolidation	Dr. Prof. S. P Dave
		Characteristics of Marine Clay using	(Guide)
		Geodrain	Prof. Shalini R. Singh
	n' ml 11	20 P (P' 1	(Co-guide)
5	Riya Thakkar	A Survey on Presence of Biopolymer	Prof. Shalini R. Singh
		Producing Micro-organism in	(Guide)
		Marine Soils & Enhance Strength of Marine soil using Potential Isolated	Prof.(Dr) M.V. Shah (Co-guide)
		micro-organism	(Co-guide)
6	Gandhi Nisarg	Performance-Based Seismic	Prof. P. G. Patel
	Hareshbhai	Evaluation of Post-tensioned Slab	
7	Mistry Dhruv	Analysis of seismic pounding	Prof. P. G. Patel
	Jayeshkumar	between RC buildings with non-	
		aligned slabs	
8	Wahaj Watan Jar	Best Way to Design a Building on Hill	Prof. P. G. Patel
		Region	
9	Dharmik H.	Seismic Behaviour of Multi-storied	Prof. D. R.
	Vansjaliya	Hybrid Building With Different Type	Tarachandani
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Of Partition Walls	D 0 D D
10	Ashwin R. Sharma	Study of Reduction in Corrosion of	Prof. D. R.
		Rebars in the Integral Waterproofing	Tarachandani
11	Beena Zala	Concrete Analysis for Seismic and Wind Effect	Prof. Priti J. Mehta
11	Deella Lala	On Multi-storied RCC and Steel-	FIOI. FILL J. MEILA
		Concrete Composite Residential	
		Building Using ETABS	
		Dunding Using LTADS	

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
12	Gohel Mirali P.	Seismic Response Evaluation of Connected R.C.C Buildings with Different Structural Link Systems	Prof. Deepa H. Raval
13	Jayesh Malaviya	Parametric Seismic Analysis of Elevated Circular Water Tank for Various Staging Patterns	Prof. P. H. Andharia
14	Anshuman R. Prajapati	Parametric Study on Diagrid Structural System With and Without Shear Walls	Prof. A. G. Hansora
15	Raj Purohit	Effect Of Artificial Jointed Orientation on Strength Parameters of Carbonate Sedimentary Rocks using Triaxial System	Dr. M. V. Shah
16	Hetal Suvar	Evaluating Engineering Properties of MSW and Modification for the Co2 Absorption	Dr. M. V. Shah
17	Shashwat Mehta	Analysis of Geogrid Reinforced Subbaseunder Grade Slab for Different Material Stacking Condition by Numerical Modelling	Dr. M. V. Shah
18	Tanvi Thakkar	Suction Characterization and Effect of Drying - Wetting Cycle on Desilting Material of Reservoir	Dr. M. V. Shah
19	Deep S. Patel	Performance of Stone waste Masonry Unit in Bond, Durability and Thermal Comfort	Prof. Poonam I. Modi
20	Kajol Trinekar	Seismic Analysis of Eccentrically Braced Structures	Prof. K. A. Parmar
21	Jignesh R. Prajapati	Parametric Study of G+23 Building With RCC and Composite Structure under Effect of Seismic and Wind	Prof. K. A. Parmar
22	Labdhi M. Doshi	Comparative Study on Isolated Foundation for Suspension and Tension Transmission Tower Under Different Soil Conditions	Prof. Poonam I. Modi
23	Dhaval Sondagar	Aerodynamic Modification for Wind Load Reduction on High-Rise Building	Prof. Bansal R. Patel
24	Rajdeep Dangar	Comparative Study on Seismic Fragility Analysis of RCC Building in Different Soil Conditions	Prof. Bansal R. Patel

### Chemical Department (CAPD)

<u>Sr.</u> <u>No.</u>	Name of Student	<u>Title</u>	Name of Guide
1	Chavda Keyur Sureshbhai	Graphene Oxide: Synthesis and Its Application	Prof. Nikita Ambegaonkar
2	Dave Akashkumar Kalpeshkumar	FORWARD OSMOSIS: A POTENTIAL WAY TO TREAT WASTEWATER	Dr. S. M. Dutta
3	Gajera Mitesh Kishorbhai	Production of Bioplastic and Optimization of properties for Packaging Material	Prof. C. G. Bhagchandani
4	Nisha Devi	Development of novel organo ruthenium drugs for cancer therapy	Dr. Paresh Rana
5	Parejiya Hastik H	Green solvent application for petrochemical industry	Prof. A. N. Vaghela
6	Parmar MaheshKumar Nanjibhai	Design modelling and simulation of reactive distillation column	Dr. D. D. Mandaliya
7	Dhaval Vishnubhai Patel	EXERGY ANALYSIS OF BIO- BUTANOL REFORMING PROCESSES INTEGRATED WITH PEMFC	Prof. Ronak R. Patel
8	Patel Hemang S	Process Intensification in Reactors	Prof. Rajul. P. Bhatt
9	Patel Riyaben Balvantbhai	Technoeconomical analysis of geothermal solar cold storage system	Dr. Sachin Parikh
10	Pindoriya Nitesh Hirjibhai	Hydrogen production from waste aluminium and utilization of by-product	Prof. Pratik B. Patel

#### Information Technology Department

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
1	Drashti Darji	Prediction of Students' Performance in Diverse Learning Model	Prof. Swati J. Patel
2	Priyanka Dobariya	Fake News Detection	Prof. Alka J. Patel
3	VaibhaviSubhashGh elani	Optimizing Recommender System Using Network Information	Dr. Purvi N. Ramanuj
4	Katariya Heena Jitendrabhai	A novel Technique for face mask detection in surveillance camera	Prof. Shital Solanki
5	Mashirabanu Mansurbhai Lohiya	Novel Approach to provide Secure Multi-Keyword Ranked Search over Encrypted Cloud Data for Multiple Data Owners	Prof. Vidish Thakkar

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
6	Neil Saxena	Approach/algorithm development for image quality of ScanSAR data	Prof. Jahnavi T Patel
7	PARMAR HARDIK PRAVINBHAI	Real-Time Recognition of Indian Sign Language	Prof. Pradip R Patel
8	Patel Krimaben Pravinbhai	Recommendation System In Competitive Exam Using Personalized & K-Means Clustering	Dr. Hitaishi M. Diwanji
9	Satasiya Trushali Kalubhai	Microservices Architectural Style for Time-Series Analysis of Sensor Data	Prof. Mital N. Panchal
10	Singh Dubendu Shravankumar	Sentiment Analysis for Stock Market Prediction using Deep Learning Techniques.	Prof. Bakul B. Panchal
11	Vishal Sakariya	Road lane-line detection and vehicle detection For Autonomous Car	Prof. Ankit C. Patel

## Civil Department

<u>Sr.</u> <u>No.</u>	Name of Student	<u>Title</u>	Name of Guide
1	Ardeshana Brijkumar Arvindbhai	Performance Analysis of Signalized Roundabout and Development of Microscopic Simulation Model for Improvement	Rena N. Shukla
2	Binal Kailashbabu Vansola	Determination of Optimum Location of Electric Vehicle Charging Station for Urban Area	Rena N. Shukla
3	Sachin Jhanwar	First and Last Mile Connectivity for Bus Line	Rena N. Shukla
4	Ushir Vahia	Design of Feeder System for Ahmedabad Metro	Rena N. Shukla
5	Harsh Navinchandra Mer	Intersections Safety Investigation using Surrogate Safety Assessment Model	Rena N. Shukla
6	Chaudhari Shrutikkumar Atulbhai	Planning and designing of public bicycle sharing system in urban area	Rena N. Shukla

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
7	Richa Rajesh Saxena	Estimating travel time and delay caused at construction work zones in Ahmedabad	Toral H. Vyas
8	ROHIT KUMAR	Comparative Study and Parametric Analysis of IRC and AASHTO Standards for Urban Road Design	Toral H. Vyas

## IC Department

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
1	Sherasiya Trupti Mansukhbhai	Performance Evaluation of Motion Blurred Image Restoration and Algorithm on Embedded Platform	Dr. Tejas V. Shah
2	Maulin Patel	Identification of Human Emotions by Facial Expression using Artificial Intelligence Techniques	Prof. M. C. Patel
3	Maharsh Thaker	Application Development of Auto Tunner for PID Controller Tuning with Machine Learning and Optimization Techniques on Remote Server using Cloud Computing	Prof. V. P. Patel
4	Devanshi Jani	Automatic PCB Defect Detection using Image Processing on Embedded Platform	Prof. D. H. Makwana
5	Sana Vohra	Artificial Neural Network Based ECG Analysis for Arrhythmia Detection	Prof. V. V. Patel

## Mechanical Department (CAD CAM)

<u>Sr.</u>	Name of Student	<u>Title</u>	Name of Guide
<u>No.</u>			
1	Chopda Dipak Manji	Design and development of RF cavity filter using carbon fibre reinforcement polymer (CFRP) material for communication satellite.	Prof. K. G. Dave
2	Naval Nareshbhai Hedau	Assessment of characteristics and capabilities of composite materials by changing their constituent materials	Prof. A. V. Patel

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
3	Parmar Jayeshkumar Hamirbhai	Performance evaluation of graphene coated tungsten carbide tools during machining of SS 316 round bar	Prof. U. A. Patel, Prof. P. R. Rathod
4	Patel Dhruvkumar Mukeshbhai	Experimental investigation of research works on the effect of UV on microstructure and mechanical properties of TIG weldments using nanocomposite filler materials	Prof. B. K. Patel
5	Patel Raj Shivkumar	Comparative analysis of thermal coating performed by transferred and non-transferred plasma arc spraying of chromium Oxide on \$8314	Prof. P. R. Rathod
6	Prajapati Jaydeepkumar Maheshbhai	Optomechanical design and analysis of composite mirror for high dimensional stability in space application	Prof. A. V. Patel
7	Raidas Amit Brijlal	Improving minimum quantity lubrication in CBN grinding using compressed air wheel cleaning	Prof. D. R. Shah
8	Raval Pratikkumar Farsuram	Cooling and lubricating effects of graphene oxide nano-fluids in machining titanium alloy	Prof. K. G. Dave
9	Saurabh Ashokkumar Srivastav	Mathematic modeling of bead placement by developing an algorithm for the same.	Prof. P. R. Rathod
10	Saxena Parth Jayantilal	Investigation of various mechanical properties of Invar material produced by Selective Laser Melting	
11	Shah Prerak Vipulbhai	Approach of Machine Learning and Artificial Intelligence in Evaluation of Mechanical Property of the Prototype made used by Rapid Prototyping	Prof. K. G. Dave
12	Jayeshkumar Devchand Solanki	Improvement of thermal and electrical characteristics of unidirectional pitch-based CFRP material and its simulation on satellite component	Prof. Y. D. Vora
13	Sushil Vyas	Numerical Analysis of The Battery Thermal Management System (BTMS) of an Electric Vehicle	Prof. Mayur Makwana

#### Mechanical Engineering Department (Cryogenic Engineering)

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
1	Darji	Comparative Study On Capacitance	Prof. H. A. Shukla
	Bhadreshbhai	Level Gauge For Liquid Nitrogen	
	Narbatabhai	and Liquid Oxygen	
2	Dave Munjal	Analysing The Effecting Parameters	Prof. R. O. Paliwal
	Rajeshkumar	For Optimizing Performance Of	
		Cryotherapy Chambers	
3	Sandeep Kumar	Design and Analysis of Contactless	Prof. R. G. Kapadia
	Shah	Support in Multi-channel Cryoline	
		using Magnetic Levitation	
4	Zalavadia Monik	Simulation and Optimization of	Prof. R. G. Kapadia
	Rohitbhai	Natural gas Liquefaction process	
5	Vaghela Shailesh	Design and optimization of plate	Dr. N. M. Bhatt
	Ghelabhai	fin heat exchanger used in natural	
		gas liquefaction process (LNG)	
6	Kalal Jignesh	Design And Analysis Of Stirling	Dr. N. M. Bhatt
		Type Pulsetube Cryocooler At 30k	
7	Malvat Navfal	Analysis of condensate removal	Prof. S. A. Saraswat
	Ismailbhai	system for regeneration of	
		cryopump cooled by two-stage	
		Gifford-McMahon process	

#### Mechanical Engineering Department (IC Engines and Automobile)

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide
1	Badheka Vaibhav Bhaskarbhai	Experimental investigation on methyl esters of mahua and papaya seed oil fuel blends in diesel engine	Prof. G. N. Sutaria
2	Chaudhari Sureshbhai Premabhai	Clean combustion control in a compression ignition engine	Prof. Vivek Trivedi
3	Lukhi Piyush Ravindrabhai	Experimental investigation of performance and emission for the Edible and Non edible Hybrid biodiesel blends with Diesel.	Prof. Vimal Sonara
4	Makwana Pragneshkumar Dashrathbhai	Alternate material for pillion hand holds of motorcycle.	Prof. M. D. Chaudhari

<u>Sr.</u> No.	Name of Student	<u>Title</u>	Name of Guide	
5	Paija Harshkumar Ashvinbhai	Designing and developing a steering system for formula car, which optimising the tyre life by overcoming drawbacks of the toe angle.	Prof. Jayendra Vasani	
6	Pandor Niraj Rajeshkumar	Material optimization of connecting rod of Internal combustion engine using Numerical techniques	Prof. Dhaval Patel	
7	Patel Jigarkumar Nareshbhai	Numerical Simulation of Internal combustion engine to understand effects of combustion on vortex generation and heat transfer	Prof. H. P. Patel	
8	Patel Shanikumar Arvindbhai	Experimental investigation on performance combustion and emission characteristics of a diesel engine fuelled with punnai oil	Prof. P. C. Sheth	
9	Prajapati Jheel Shaileshbhai	Experimental Investigations of Performance and Emission Characteristics of Diesel Engine fuelled with Sardine Oil	Prof. A. G. Momin	
10	Rachhadiya Jasminkunar Kantibhai	Experimental investigation on fuel economy of CVT driven 2- Wheeler with deteriorating condition of centrifugal clutch	Prof. D. U. Panchal	
11	Sagar Chandresh Rajsibhai	Analysis and investigation of composite material leaf spring	Prof. M. M. Makwana	
12	Sutariya Kathan Chandrakant	"Experiment investigation on exhaust emissions in a diesel engine using animal fat oil based ester fuels with nanoparticles as an additive."	Prof. Mazar Shaikh	

## EC Department

<u>Sr.</u>	Name of Student	<u>Title</u>	Name of Guide	
<u>No.</u>				
1	Vadher Payalben Lower geometry DRC challenges		Prof. (Dr.) M. V.	
	Shardulbhai and solutions		Shah	
2	Vadher DFT methodology for pattern		Prof. (Dr.) M. V.	
	Deepkumar	generation with low power	Shah	
	Kishorbhai			
3	Susmita Bera	Importance Of Different Checks	Prof. (Dr.) M. V.	
		for Better Qor in Physical Design	Shah	

<u>Sr.</u> <u>No.</u>	Name of Student	<u>Title</u>	Name of Guide	
4	Bhatt Pranav	A Novel Approach to Improve the	Prof. (Dr.) B. S.	
	Manojbhai	Performance of Free Space Sedani		
		Optical Communication System		
5	Meghanathi	Optimization of POLAR and LDPC	Prof. (Dr.) B. S.	
	Shradhaben	codes for 5G communication	Sedani	
	Mukeshgiri	system		
6	Chauhan Manish	Object Detection using Machine	Prof. K. G. Vaghela	
	A.	learning		
7	Chavda	Speech Denoising Using Artificial	Prof. K. G. Vaghela	
	Trushaben	Intelligance		
	(left the course			
	due to govt. job			
	at gandhinagar)			
8	Luhar	Impact of Physical Cell Placement	Prof. S. B. Prajapati	
	Jigarkumar	of Floorplan stage on Design in		
	Ramesh	Physical Design		
9	Prasad Swati	Impact of physical cell in signoff	Prof. S. B. Prajapati	
	Baleshwar	stage		
10	10 Bhoi Manishaben Effect of DRC on wafer		Prof. P. J.	
	Shankarbhai	fabrication	Brahmbhatt	
11	Gohil Khushbu	Wearable Flexible Antenna	Prof. P. J. Muliya	
	Hasmukhbhai	Design for Healthcare		
12	Agrawal	Novel Approach for Dielectric	Prof M. C. Sahoo	
	Manojkumar	Resonator Antenna for GNSS &		
	Madanlal	Satellite Communication.		
13	Bhatt Keyuri	Enhancement of ATPG and	Prof. A. B.	
	Nitinkumar	Simulation at Block level with	Upadhyay	
		Target Test Coverage	- 0/- > - 1	
14	Maheta	Optimizing speech enhancement	Prof (Dr.) Nirali	
	Abhighna	technique	Kotak	
	Vasantkumar	T. 1. (CDTT ) TDC		
		Enhancement of DFT-ATPG	Prof. (Dr.) P. P.	
	Jitesh	Techniques at Lower Technology	Prajapati	
		Node.	, ·	
16	Rana Jigna	YIELD improvement using DFM	Prof. S. K. Gonsai	
	Shankarbhai	technique		
17	Apoorva	Different placement strategy of Prof K. V. Pa		
		low power component and its		
		impacts on lower technology		
		node		

<u>Sr.</u>	Name of Student	<u>Title</u>	Name of Guide
No.			
18	Ray Yesha	Impact of Macro Placement on	Prof. Suresh
	Jitendrabhai	Design Qor in Physical Design	Bharwad
19	Nikeetabahen	Floorplan optimization with pin	Prof. Dhaval Patel
	Manubhai Bhoi	placement strategy	
20	Patel Tulsiben	Design of Point Multiplication for	Prof. D. N. Patel
	Mukeshbhai	Elliptic Curve Cryptography	
21	Gadge Minal Anil	Algorithms for the next	Prof. (Dr.) A. J.
		generation 5G mobile Network	Kshatriya

## Rubber Technology Department

<u>s</u>	<u>r.</u> Io.	Name of Student	<u>Title</u>	Name of Guide
1	•	Ankit Vandra	"Rubberized Track For Armoured Fighting Vehicle"	Prof. R. N. Desai, Prof. G. G. Bhatt

# Designed By

Sn. No	Name	Envolment No.	Semester	Division	Branch
1	Shreya Parmar	180280107058	7	A	Computer
2	Ravikumar Parmar	190280107092	5	В	Computer
3	Het Shah	200280107002	3	A	Computer
4	Juhi Bhojani	200280107017	3	A	Computer
5	Kushang Haria	200280107027	3	A	Computer
6	Dev Desai	200280107041	3	A	Computer
7	Ujwal Gupta	200280107086	3	В	Computer

