

**ELECTRICAL ENGINEERING DEPARTMENT**  
**GOVERNMENT ENGINEERING COLLEGE,**  
**MODASA**



**ELECTROZINE-2022**



# प्रार्थना



हे शारदे माँ, हे शारदे माँ  
अज्ञानता से हमें तार दे माँ,  
तू स्वर की देवी है संगीत तुझसे,  
हर शब्द तेरा है हर गीत तुझसे ।  
हम हैं अकेले हम है अधुरे,  
तेरी शरण में हमें प्यार दे माँ ॥  
हे शारदे माँ, हे शारदे माँ.....  
मुननयों ने समझी मुननयों ने  
जानी,  
बेदों की भाषा पुराणों की बानी ।  
हम भी तो समझें हम भी तो  
जाने,  
नवद्या का हमको अनधकार दे

## **ABOUT THE MAGAZINE**

**This magazine aims to focus on the Department of Electrical engineering of GEC Modasa, where various activities are being conducted among students and faculties. It also dives into the Extraordinary talent among the students who do their level best in their academics as well as broadcast their inner talents and hobbies to enhance the glory of the Department.**

# INDEX

<i><b>SR. NO.</b></i>	<i><b>CONTENTS</b></i>	<i><b>PAGE NO</b></i>
<i><b>1.</b></i>	<i><b>VISION AND MISSION</b></i>	<i><b>4</b></i>
<i><b>2.</b></i>	<i><b>PRINCIPLE'S DESK</b></i>	<i><b>5</b></i>
<i><b>3.</b></i>	<i><b>HOD'S DESK</b></i>	<i><b>6</b></i>
<i><b>4.</b></i>	<i><b>ABOUT THE DEPARTMENT</b></i>	<i><b>7</b></i>
<i><b>5.</b></i>	<i><b>ABOUT THE COURSE</b></i>	<i><b>8</b></i>
<i><b>6.</b></i>	<i><b>FACILITIES</b></i>	<i><b>9</b></i>
<i><b>7.</b></i>	<i><b>FACULTY AND STAFF</b></i>	<i><b>10</b></i>
<i><b>8.</b></i>	<i><b>TRAINING ATTENDED BY FACULTY</b></i>	<i><b>11</b></i>
<i><b>9.</b></i>	<i><b>DEPARTMENTAL ACTIVITIES</b></i>	<i><b>12</b></i>
<i><b>10.</b></i>	<i><b>MOUS SIGNED BY THE DEPARTMENT</b></i>	<i><b>34</b></i>
<i><b>11.</b></i>	<i><b>STUDENT SECTION</b></i>	<i><b>35</b></i>
<i><b>12.</b></i>	<i><b>ENGINEERING NETWORK STREAK</b></i>	<i><b>53</b></i>



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## VISION

**To thrive for excellence in the field of Electrical Engineering by imparting quality education that produces skilled, innovative and ethical engineers to meet the needs of academia, industry and society.**

## MISSION

- To provide an effective Teaching -Learning environment to acquire skills and knowledge in the field of Electrical Engineering.
- Strengthen industry institute interaction to enable the students to work on innovative and real time problems.
- To foster a culture of entrepreneurship amongst the students.
- To instill values in students for lifelong learning and service to the society.

## Program Educational Objectives (PEOs)

The Graduates will be able to

- Design, model, analyze and provide appropriate solutions to the industry-based problems.
- Demonstrate entrepreneurial skills and lifelong learning during the career.
- Adapt themselves with the new technological challenges.
- Exhibit professional leadership skills imbining ethical practices.
- Contribute idea with effective communication and work in a team to develop projects and plans.

## Program Specific Outcomes (PSO)

**PSO 1: Utilize the domain knowledge cultivated from courses of Electrical Engineering encompassing Analysis, Control, Protection, Design of Electrical Machines and Power Systems.**

PSO 2: Evaluate the existing system and provide technical solutions to meet the societal needs.

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## PRINCIPAL'S DESK



**Dear Students & Faculty members,**

**Warm greetings to all students and faculty members of this institute. I have joined this institute as a principal from 1st, June, 2019. Before that I served here as a Professor & Head of Applied Mechanics Department for about four years. Hence, I am quite aware about strength and weakness of this institute. The institute has grown by improving quality and quantity in terms of academic activities as well as extracurricular activities in the last decade. But there is always a scope for improvement. Hence with the effort of all students, faculties and staff, we wish to place the institute to the next level of success.**

**Today the world is accelerating very fast due to rapid technological developments. Hence it is very difficult to impart engineering education in a conventional classroom method. We insist frequent visit to industries, project-based learning, innovative way of teaching learning, pedagogy etc. for making engineering education more meaningful and excited. The institute has very good, qualified, sincere and dedicated faculties as well as very well-developed laboratories in all courses it runs. Hence students are requested to take the maximum benefits of the knowledge available from the campus for capacity building of the nation.**

**Due to technological developments, there is boom across the globe regarding reduction in jobs and due to increasing population there is a cut-throat competition. Hence there is a lot of expectation from the society that engineers should become job giver or job creator rather than job taker. Our Hon'ble Prime Minister has also acted on this issue by initiating various missions like Make in India, Digital India, Skill India, Start Up India etc. I urge all engineering students to put sincere efforts to the best of your capacity to succeed in various mission of our Hon'ble Prime Minister in reducing the problem of unemployment. Institute provide all sorts of help in initiating your start up and making you successful entrepreneur. The only thing you need is, to develop out of box thinking, hard work and stop not till the goal is reached.**

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## HEAD OF THE DEPARTMENT'S DESK



**Greetings!**

**I take the privilege to welcome you all to this new edition of Electro zine. Electro zine is a barometer of the activities taking place in the department and the achievements of students/faculty of the department.**

**The strength of Electrical engineering Dept, is well qualified and dedicated faculty with good infrastructure facility. The faculty in the department is of the opinion that the individual diligence, quest for knowledge and excellence and hard work by the students in the right direction play a crucial role in his/her success. The students are motivated to take maximum advantage of the knowledge in the department. A number of co-curricular and extra-curricular activities take place in the department to harness the potential and talents of students.**

**The department provides an environment where teaching and learning process is supplemented with critical thinking and problem-solving skills that would help the students mold themselves to become competent in the engineering field and thus serve the society.**

**I appreciate and acknowledge the zeal and enthusiasm of the students who have worked towards the making of this magazine. My heartfelt gratitude to them.  
All the best to my students!**

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## ABOUT THE DEPARTMENT

**It is the very first building entering the campus. This department has various laboratories in the areas of Basic Electrical, Microprocessor, Electrical Machine Electrical Measurement, Power Electronics, Computer Laboratory, High Voltage, and Switchgear & Protection Laboratory. The Department has an excellent Computer Centre. This department has laboratories in the field of Electrical Measurement, Electrical machines, Power systems, Microprocessors, High Voltage Engineering, Electronics, and Control. It looks after the electric service/maintenance of the campus.**



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## ABOUT THE COURSE

Electrical engineering, one of the core courses of engineering discipline deals with the study of the design, development, and maintenance of electrical systems and their components, ensuring quality , safety , reliability, and sustainability The course focuses on the manufacturing of electrical equipment used in a number of sectors including construction and building and the production and distribution of power. Students pursuing electrical engineering study about semiconductors and microprocessors. The undergraduate course will award a B . Tech / B . E . degree and the postgraduate course , an M . Tech . An electrical engineer is someone who designs and develops new electrical systems , solves problems and tests equipment . They study and apply the physics and mathematics of electricity, electromagnetism and electronics to both large and small scale systems to process information and transmit energy . They work with all kinds of electronic devices , from the smallest pocket devices to large supercomputers An electrical engineer is someone who designs and develops new electrical consoles problems and tests equipment . They study and apply the physics and mathematics of electricity , electromagnetism and electronics to both large and small , scale systems to process information and transmit energy . They work with all kinds of electronic devices , from the smallest pocket devices to large supercomputers .

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## Facilities

- **Basic Electrical Lab**
- **Electrical Machine Lab**
- **Electrical Measurement Lab**
- **Instrumentation Lab**
- **Digital Electronics Lab**
- **PLS and DSP Lab**
- **Microprocessor Lab**
- **Switchgear and Protection Lab**
- **Basic/Analog Electronics**
- **Power Computation Lab**
- **High Voltage Lab**
- **Control Lab**

## FACULTY & STAFF

<b>Prof. V.J.Updhyay</b>	<b>Professor and Head of the Department</b>	<b>Prof. R. K. Kapadia</b>	<b>Assistant Professor</b>
<b>Prof. M. J. Patel</b>	<b>Associate Professor</b>	<b>Prof. N. B. Panchal</b>	<b>Assistant Professor</b>
<b>Prof. N. V. Upadhyay</b>	<b>Assistant Professor</b>	<b>Prof. S. V. Banker</b>	<b>Assistant Professor</b>
<b>Prof. J.B.Pujara</b>	<b>Assistant Professor</b>	<b>Prof. D.U.Thakar</b>	<b>Assistant Professor</b>
<b>Prof. K. K. Bhatt</b>	<b>Assistant Professor</b>	<b>Prof. H.S.Pandya</b>	<b>Assistant Professor</b>
<b>Prof. T.P.Shah</b>	<b>Assistant Professor</b>	<b>Shri. S. J. Patel</b>	<b>Electrician</b>
<b>Prof. T. A. Chaudhari</b>	<b>Assistant Professor</b>	<b>Shri A. K.Bhangi</b>	<b>Hamal</b>
<b>Prof. C. K. Bariya</b>	<b>Assistant Professor</b>		

## Training Attended by Faculty

Sr. No.	Name of Faculty	Training Title	Starting Date of Training			Ending Date of Training			Training Venue
			Day	Month	Year	Day	Month	Year	
1	Dr.V.J.Upadhyay	Advances in power systems and protection	26	July	2021	6	August	2021	GEC-Bharuch
2	N.V.Upadhyay	Advances in power system and protection	26	July	2021	6	August	2021	GEC-Bharuch
3	Darshan U. Thakar	Using ICT Tools in Teaching and Learning (MRDE-6)	23	August	2021	27	September	2021	NITTR
5	JIGNESHKUMAR BALDEVBHAI PUJARA	Introduction to Smart Grid	26	July	2021	17	September	2021	NPTEL
6	Hemang S. Pandya	Smart Systems	4	OCTOBER	2021	8	October	2021	ATAL FDP by IITRAM
7	N.V.Upadhyay	Recent Advancement in Power system with Renewable Energy	17	January	2022	21	January	2022	ATAL Academy,GEC PATAN
8	Nilam B. Panchal	Induction Phase-II	26	July	2021	6	August	2021	Sponsored by NITTTR, BHOPAL
9	Dr.V.J.Upadhyay	Recent Advancement in Power system with Renewable Energy	17	January	2022	21	January	2022	ATAL Academy,GEC PATAN
10	Bankar Sumitkumar Vinodbhai	Inculcating Universal Human Values in Technical Education	21	February	2022	25	February	2022	AICTE
11	Bankar Sumitkumar Vinodbhai	LABVIEW	21	March	2022	25	March	2022	NITTTR, BHOPAL



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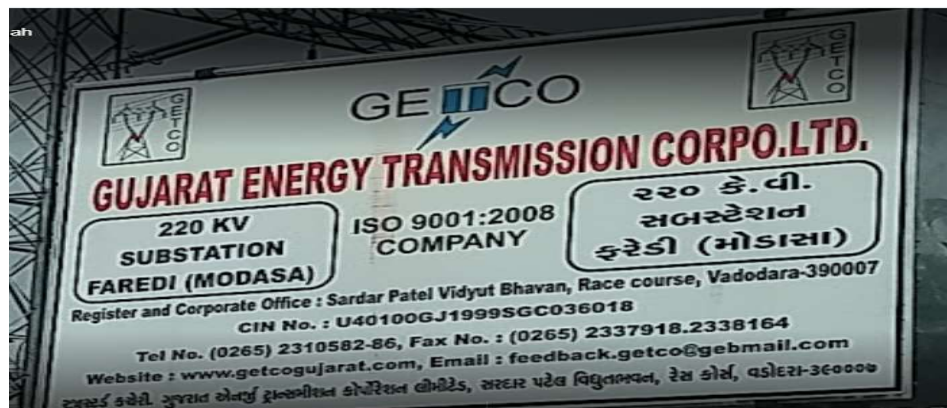
# Departmental Activities

## Industrial Visit

Name of Industry: Faredi Substation

Date of Visit: 07/10/2021

Government Engineering College, Modasa, Electrical Engineering Department has organized an industrial visit to Faredi Substation, Modasa Gujarat. 29 students along with 1 faculty member visited the industry on above mentioned date.



**GENERAL INFORMATION:** Gujarat Energy Transmission Corporation Limited (GETCO) was set up in May 1999 and is registered under the Companies Act, 1956. The Company was promoted by the erstwhile Gujarat Electricity Board (GEB) as its wholly-owned subsidiary in the context of

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liberalization and as a part of efforts towards restructuring of the Power Sector. The company is now a subsidiary of Gujarat Urja Vikas Nigam, the successor company to the GEB. An electrical substation is a subsidiary station of an electricity generation, transmission and distribution system where voltage is transformed from high to low or the reverse using transformers. Electric power may flow through several substations between generating plant and the consumer and may be changed in voltage in several steps. A substation that has a step-up transformer increases the voltage while decreasing the current, while a step-down transformer decreases the voltage while increasing the current for domestic and commercial distribution.

**OBJECTIVE OF VISIT:** Our main purpose for this visit is to be familiar with the industrial environment and to get practical knowledge of electrical power transmission and distribution. Being final year students we will get to know about the basic industrial functioning of power transmission and distribution. Students will also get familiar with Transformer maintenance, circuit breaker, transformer isolator, bus bar, Protective relays, Lightning arresters, Load break switches, SCADA system, Current and voltage Transformer, and Battery room.

#### **EQUIPMENT IN A 220KV SUBSTATION**

The equipment required for a transformer Sub-Station depends upon the type of Sub-Station, Service requirement and the degree of protection desired.

220KV EHV Sub-Station has the following major equipment:

- Bus-bar
- Insulators
- Isolating Switches
- Circuit breaker
- Protective relay
- Instrument Transformer

#### **CONCLUSION**

Now from this report, we can conclude that electricity plays an important role in our life. We are made aware of how the transmission of electricity is done. We too came to know about the various parts of the substation system. The three wings of the electrical system viz. generation, transmission, and distribution are connected to each other and that too very perfectly.

Thus, for effective transmission and distribution a substation must:

- Ensure steady-state and transient stability
- Effective voltage control
- Prevention of loss of synchronism
- Reliable supply by feeding the network at various points
- Fault analysis improvement in the respective field
- Establishment of economic load distribution

## Visit: A Mega Science Expo“Vigyan Sarvatra Puijate” Gujrat University,Ahmedabad



The office of Principal Scientific Advisor, Vigyan Prasar, Government of India, along with the Ministry of Culture had coordinated aggregated ongoing grand activities of the Science and Technology eco-system in India as part of Azadi Ka Amrut Mahotsav. As a part of the conclusion, week-long festivities and celebrations are being organized during February 22-28, 2022 culminating with National Science Day on 28th February. The celebration week is given the title “Vigyan Sarvatra Puijate” . The celebration week activities are being organised simultaneously across 75 locations all over the country. A Mega Exposition showcasing various achievements in Science & Technology during February 22 - 28, 2022, at Gujrat University, Ahmedabad is also a part of such events.

Students of Government Engineering college Modasa, Electrical Department, from all semesters has visited this Mega Expo "Vigyan Sarvatra Puijate Science Exhibition" along with the faculty coordinator on 25<sup>th</sup> February 2022. It consists of Science exhibitions, presentations, Lectures, book fair, and working models.

The event has covered four major themes-- Milestones of Modern Indian Science and Technology, Swadeshi Paramparik Inventions and Innovations, Science and Technology for next 25 years and Competitions for all. The idea behind it is to try and inspire the youth of India while bringing to the fore inspiring stories of famous people in science. The event have displayed the country's scientific legacy and technology prowess that has helped find solutions to defence, space, health, agriculture, astronomy, and other sectors.

Leading scientific institutes like Institute of Plasma Research, Ahmedabad, Physical Research Laboratory, Ahmedabad, Indian Space Research Organization, Ahmedabad, Vikram A Sarabhai community science center, Ahmedabad Department of microbiology and biotechnology, Department of Chemistry, Mathematics, Department of life sciences, food science and nutrition,



school of sciences, Gujarat university, Ahmedabad etc. has presented working model, scientific facts, operations and banners in this Mega Expo.

Students has also taken active participation in scientific games over there. The open-ended, hands-on activities are aimed at motivating young learners to appreciate the joy of science learning by doing it. Students had taken the benefits and avail knowledge from this event. E certificate is provided to the students participants.

The expo included a lot of events and programs displaying India's scientific heritage. "Vigyan Sarvatra Pujiyate " term means science is revered all over and the event had effectively spread the message. It was really worth to visit this Expo.











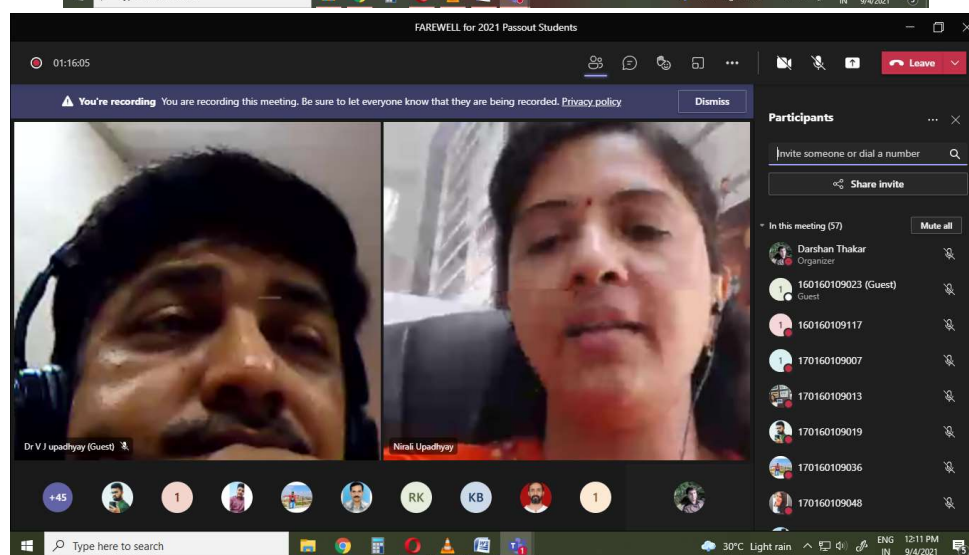
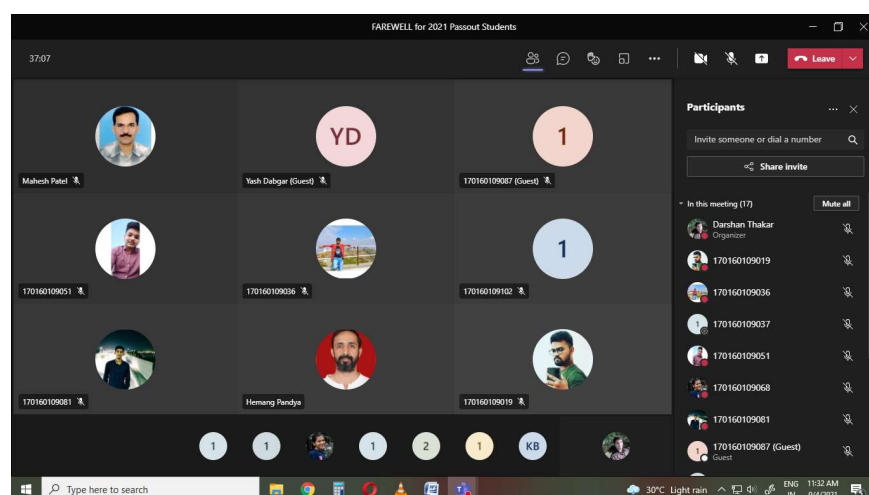
## NAME OF EVENT: "FAREWELL FOR 2021 PASS OUT STUDENTS"

Date of Webinar: 04/09/2021

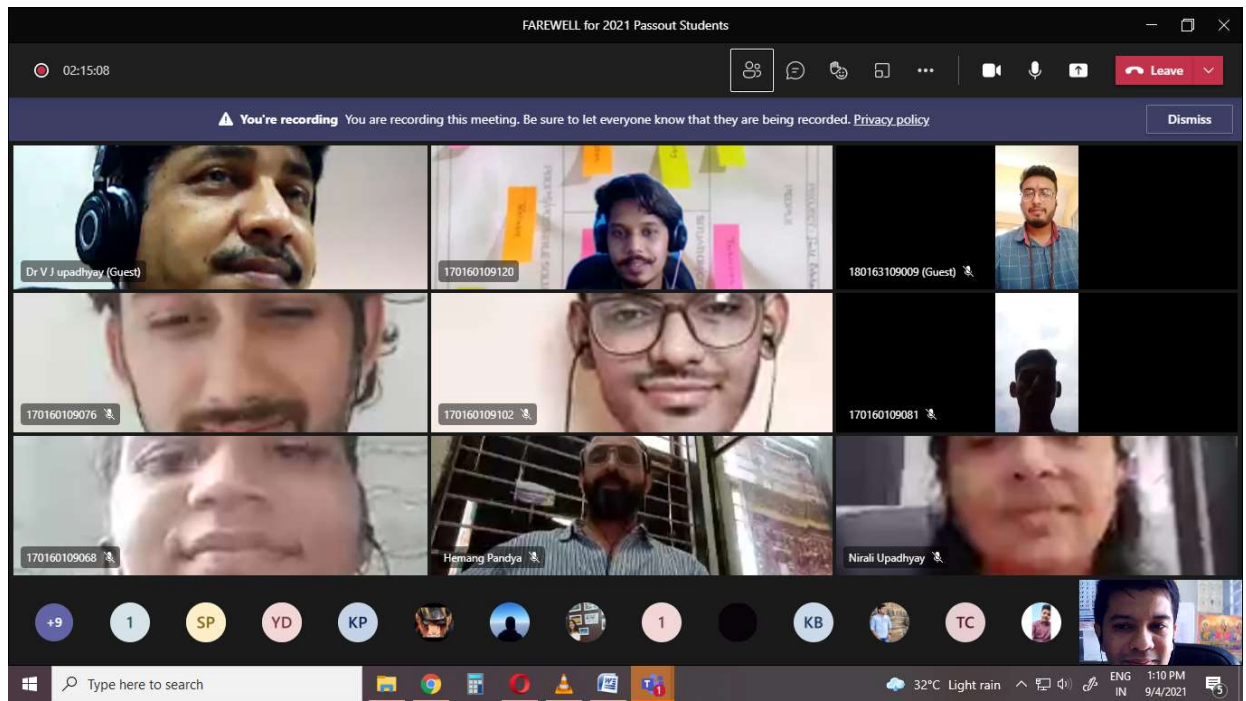
[https://teams.microsoft.com/l/meetup-](https://teams.microsoft.com/l/meetup-join/19%3a1b78c9bfd952419aaa8443abc29d227d%40thread.tacv2/1630646655716?context=%7b%22Tid%22%3a%22ee8686a-40a5-4a93-9956-a0daa017ae11%22%2c%22Oid%22%3a%2258d2f4ae-73a8-45aa-b5c5-537d86db7b2b%22%7d)

[join/19%3a1b78c9bfd952419aaa8443abc29d227d%40thread.tacv2/1630646655716?context=%7b%22Tid%22%3a%22ee8686a-40a5-4a93-9956-a0daa017ae11%22%2c%22Oid%22%3a%2258d2f4ae-73a8-45aa-b5c5-537d86db7b2b%22%7d](https://teams.microsoft.com/l/meetup-join/19%3a1b78c9bfd952419aaa8443abc29d227d%40thread.tacv2/1630646655716?context=%7b%22Tid%22%3a%22ee8686a-40a5-4a93-9956-a0daa017ae11%22%2c%22Oid%22%3a%2258d2f4ae-73a8-45aa-b5c5-537d86db7b2b%22%7d)

Government Engineering College, Modasa, Electrical Engineering Department has organized a FAREWELL for 2021 Pass out Students " and the date was 04/09/2021. There were 100 participants. The main focus of the talk was basics about encouraging the pass-out-out batch for their upcoming journey. Prof. D.U.Thakar coordinated whole the event. The first talk was given by hod Sir Dr V.J.Updhyay followed by Senior Prof. M.J.Patel. Then all the faculties gave an inspiration talk to the students. From the student side, Khiuhi, Nitant and Timir shared their journey of four years in the Electrical Department.







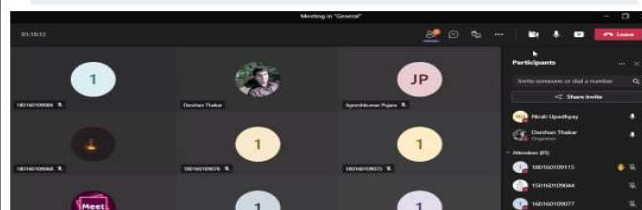
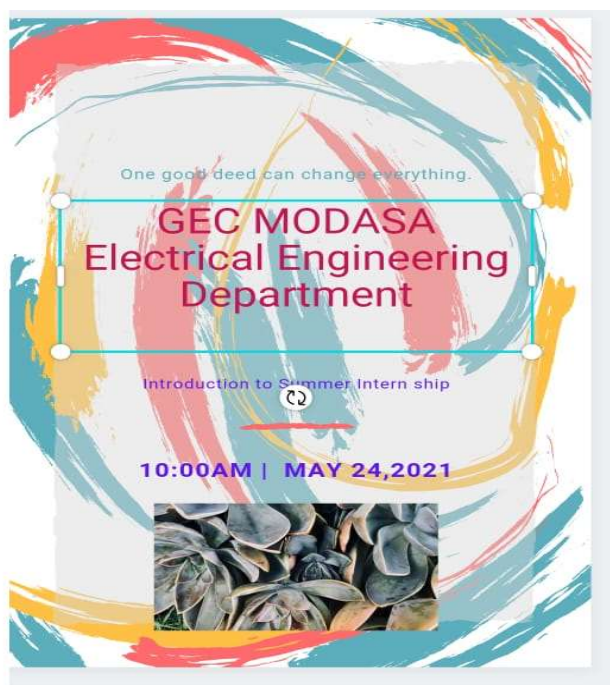
## NAME OF SEMINAR: INTRODUCTION TO INTERNSHIP

**Date of Webinar: 27/05/2021**

Government Engineering College, Modasa, Electrical Engineering Department has organized a seminar for 7<sup>th</sup> Semester students on " Introduction To Internship " and date of webinar was 27/05/2021 and the duration of the webinar was from 10.00 A.M. to 12.00 P.M.. There were 90 participants. The main focus of the seminar was selection of topics for Summer Internship. At the end of the seminar many students have asked the doubt which has been cleared by the departmental faculties.

**The link of webinar is:**

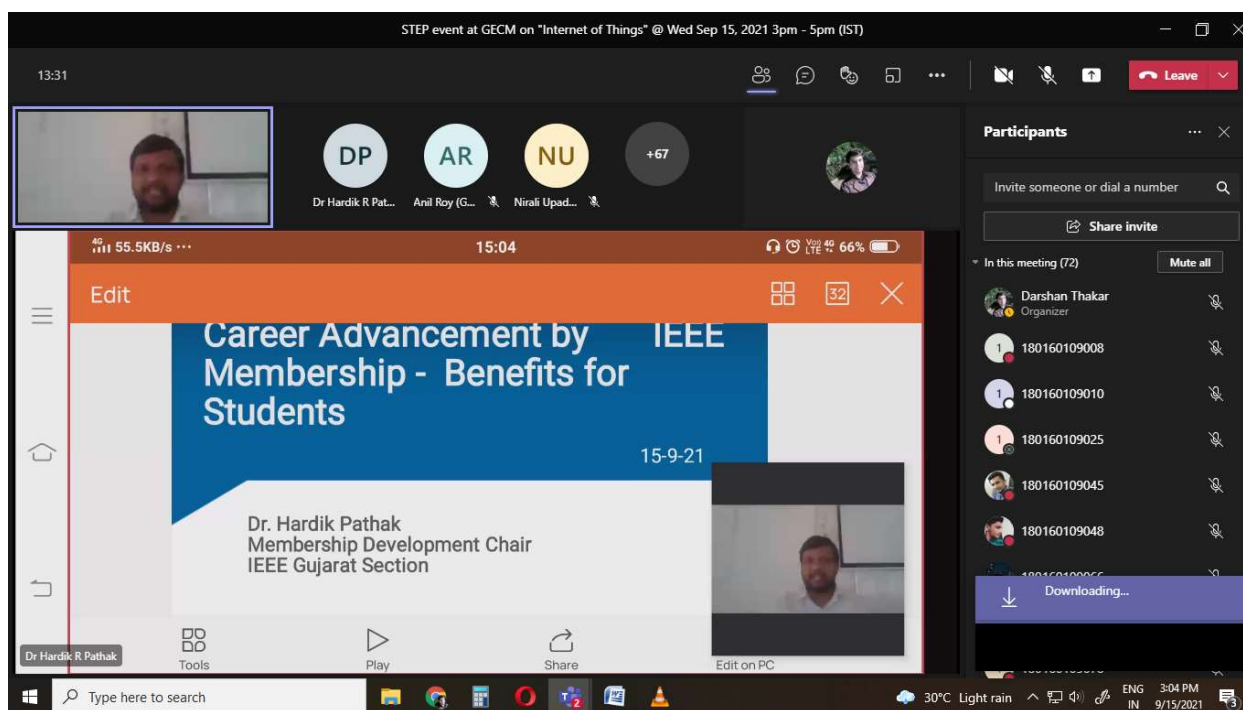
**<https://teams.microsoft.com/l/meetup-join/19%3a9fb94a9e6c1f4777bce609c70d472aa6%40thread.tacv2/1621683902220?context=%7b%22Tid%22%3a%228ee8686a-40a5-4a93-9956-a0daa017ae11%22%2c%22Oid%22%3a%2258d2f4ae-73a8-45aa-b5c5-537d86db7b2b%22%7d>**



## NAME OF WEBINAR: " INTERNET OF THINGS"

**Date of Webinar: 15/09/2021**

Government Engineering College, Modasa, Electrical Engineering Department and IEEE Gujarat Section has organized a webinar as a celebration of Engineer's Day on " Internet of Things" and date of webinar was 15/09/2021 and the duration of the webinar was from 03.00 P.M. to 5.00 P.M.. There were 101 participants. The main focus of the webinar was internet of things which is one topic of 5<sup>th</sup> Semester subject Signals and Systems(3150912).The expert was Dr. Anil Roy, Associate Professor, DAIICT. The talk was started by giving introduction about IEEE Membership by Dr. Harshul Yagnik and Dr Hardik Pathak. After completing the introduction of IEEE,HOD Sir, Dr. V.J.Updhyay welcome chief guest Dr Anil Roy. Dr Anil Roy started the talk by taking quiz and distribute prize to Winner of Quiz. Dr Anil Roy sir have explained the past, present and future of internet of things. At the end of talk ,doubts of students were cleared by Dr Anil Roy Sir.bAt the end of session , participant certificates were distributed.



STEP event at GECM on "Internet of Things" @ Wed Sep 15, 2021 3pm - 5pm (IST)

15:25

DP AR NU HY 2 +71

Dr Hardik R Pat... Anil Roy (G... Nirali Upad... Harshul Yag... 200160109... 200160109...

GEC Modasa\_Benefits...

# Career Advancement by IEEE Membership - Benefits for Students

15-9-21

Dr. Hardik Pathak  
Membership Development Chair  
IEEE Gujarat Section

IEEE Gujarat Section

Dr Hardik R Pathak

Participants

Invite someone or dial a number

Share invite

In this meeting (78)

Mute all

Darshan Thakar  
Organizer

180160109008

180160109010

180160109025

180160109030

180160109045

180160109048

180160109064

180160109066

30°C Light rain

ENG IN 3:06 PM 9/15/2021

STEP event at GECM on "Internet of Things" @ Wed Sep 15, 2021 3pm - 5pm (IST)

01:04:04

AR 2 2 1 +87

200160109... Anil Roy (Guest) 200160109... 200160109... 190163109... 180160109...

## Purpose

- IoT – how it started?
- "The Internet of Things, or IoT, is the integration of people, processes and technology with connectable devices and sensors to enable remote monitoring, status, manipulation and evaluation of trends of such devices." - Peter T. Lewis, 1985

15 15-Sep-21

Anil Roy (Guest)

Participants

Invite someone or dial a number

Share invite

Attendees (93)

Mute all

Anil Roy (Guest)  
Guest

160160109118

170160109120

180160109007

180160109010

180160109013

180160109023

180160109025

180160109030

30°C Rain showers

ENG IN 3:55 PM 9/15/2021



STEP event at GECM on "Internet of Things" @ Wed Sep 15, 2021 3pm - 5pm (IST)

01:08:23

AR

2

2

1

+82

200160...

Anil Roy (Guest)

200160...

200160...

190163...

180160...

IoT Timeline

Participants

Invite someone or dial a number

Share invite

Waiting in lobby (1)

190163109014 Admitting...

190163109014 Mute all

Presenters (2)

Darshan Thakar Organizer

Anil Roy (Guest) Guest

Attendees (87)

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Type here to search

30°C Rain showers

ENG IN

3:59 PM

9/15/2021

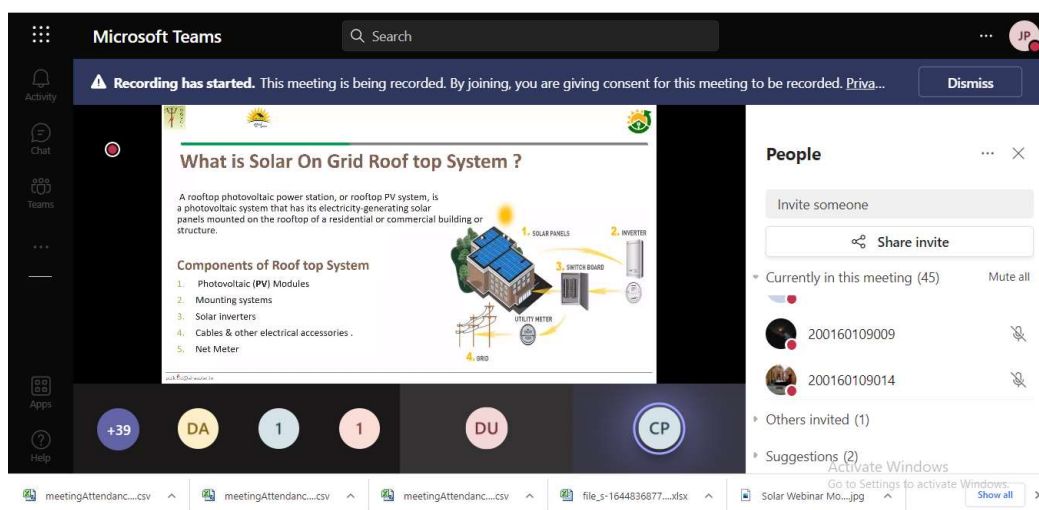
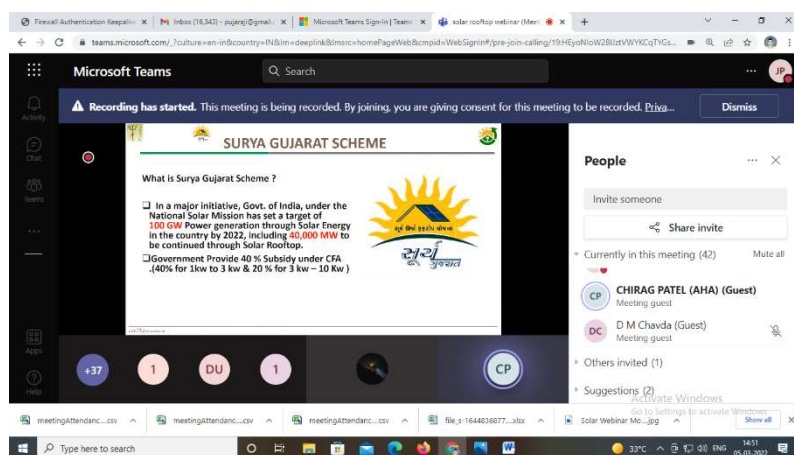
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## NAME OF WEBINAR: "SOLAR SYSTEMS"

Date of Webinar: 05/03/2022

Government Engineering College, Modasa, Electrical Engineering Department and IEEE Gujarat Section has organized a webinar as a celebration of Engineer's Day on "Internet of Things" and date of webinar was 5/03/2022 and the duration of the webinar was from 02.00 P.M. to 4.00 P.M.. There were 75 participants.

Principal Dr B J shah sir also admired the activities. This is part of industry institute interaction webinar series which is delivered by industry experts on recent trends in industry.





## Department of Electrical Engineering, GEC Modasa

### Report on Webinar arranged entitled

**“Recent Trends in Transformer Design”** Date 10/08/2021 Time: 11.30 am to 1.30 pm

**“Understanding Transformer Protection”** Date 11/08/2021 Time: 11.30 am to 1.30 pm

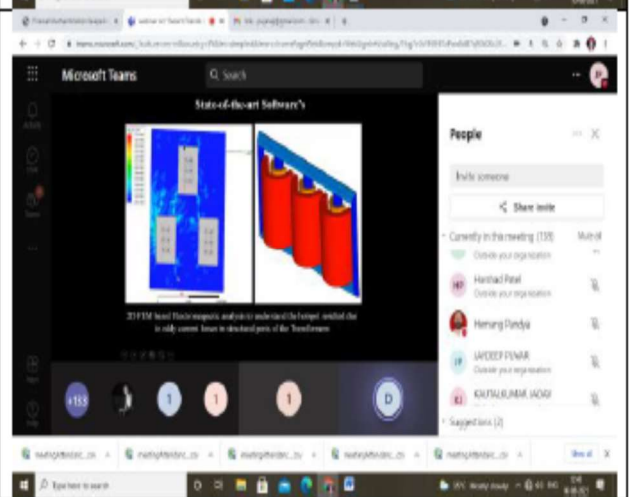
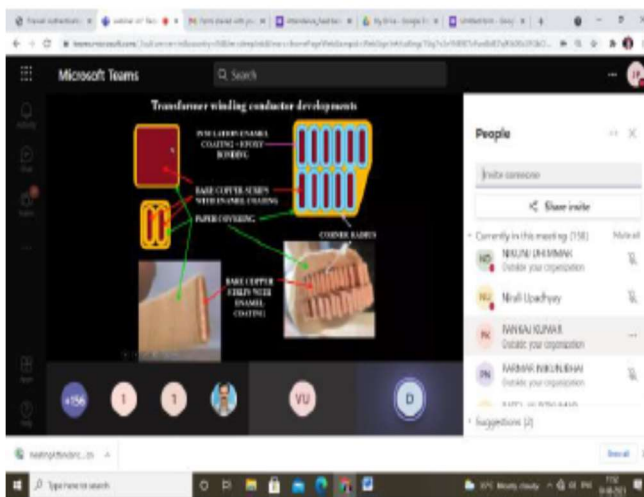
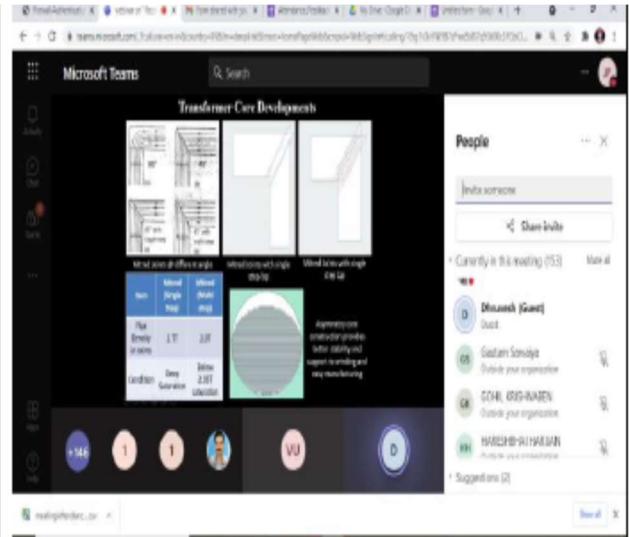
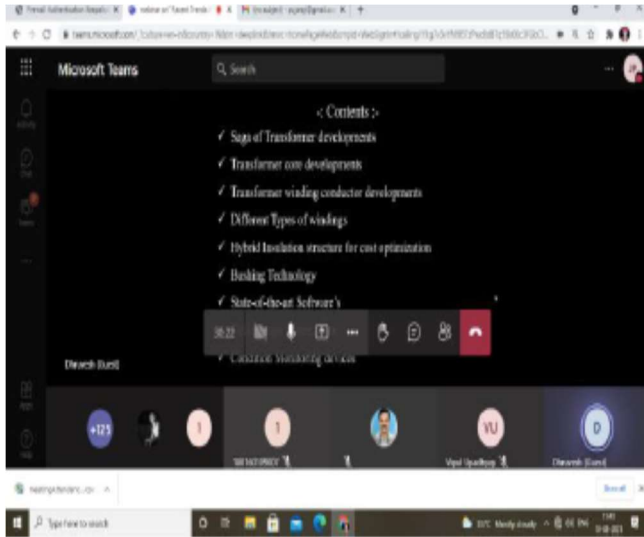
**Dr.Dhruvesh M.Mehta,Asst.Manager, Design,TBEA Energy(India) Ltd was the expert of both the session.**

Expert had extensively explained all the procedures followed in industry for transformer designing and its protection. It is really fulfill the bridge between industry and institute. The students have participated in good numbers (150 attendees including students and Faculty) been interactive throughout the session since beginning and made the programme successful.

The pictorial memory and feedback is shared here with in the following section. This is to offer heartfelt thanks to the Head of the Department Electrical Engineering and Principal,GEC Modasa to permit and guiding for the said programme, the expert for sparing valuable time and the participants to make session interactive and interesting.

Government Engineering College, Modasa  
Department of Electrical Engineering  
Organizes  
INDUSTRY INSTITUTE INTERACTION SERIES WEBINAR  
on  
"Recent Trends in Transformer Design"  
10<sup>th</sup> August, 2021  
11.30 A.M. To 1.30 P.M.  
Speaker: Dr. Dhruvesh M. Mehta, Asst. Manager, Design, TBEA Energy(India) Ltd.  
Patron: Dr. B. J. Shah, Principal, GEC, Modasa  
Convenor: Dr. V. J. Pathyay, Head of Elect Dept, GEC, Modasa  
Faculty Coordinator: Prof. B. P. Jara, Asst. Prof., TTD, GEC, Modasa

Government Engineering College, Modasa  
Department of Electrical Engineering  
Organizes  
INDUSTRY INSTITUTE INTERACTION SERIES WEBINAR  
on  
"Understanding Transformer Protection"  
11<sup>th</sup> August, 2021  
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Faculty Coordinator: Prof. M. J. Patel, Asst. Prof., TTD, GEC, Modasa



## **NAME OF WEBINAR: "VIRTUAL INTERNSHIP EXPO"**

**Date of Webinar: 07/08/2021**

Government Engineering College, Modasa, Electrical Engineering Department has organized internship expo on 7/08/2021 and the duration of the webinar was from 011.00 P.M. to 4.00 P.M.. There were 100 participants. Principal Dr B J shah sir also admired the activities.

**Government Engineering College, Modasa**  
**Department of Electrical Engineering**  
**Organizes**  
**"Virtual Internship Expo"**







**7<sup>th</sup> August, 2021**  
**11.00 A.M. Onwards**

**Patron:**  
**Dr.B.J.Shah**  
**Principal**  
**GEC,Modasa**

**Convenor:**  
**Dr.V.J.Upadhyay**  
**Head of Elect Dept**  
**GEC,Modasa**

**Faculty Coordinators:**  
**Prof.J.B.Pujara,Prof.D.U.Thaker**  
**Asst.Prof.,EED,**  
**GEC,Modasa**

## DESIGN ENGINEERING PROJECT EXPO

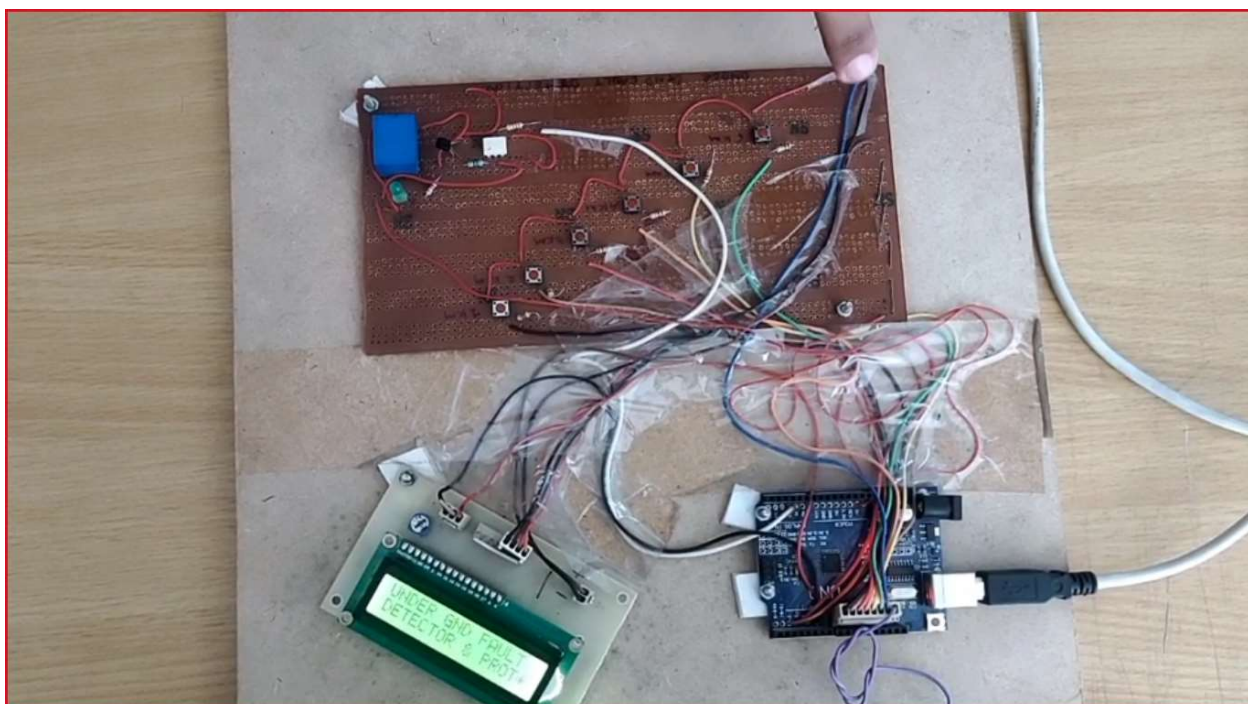
Electrical Engineering Department, GECM organized a project expo for 5<sup>th</sup>-semester students on 8<sup>th</sup> oct., 2021. 31 teams and 140 students have participated and represented their project model online via MS TEAMS.

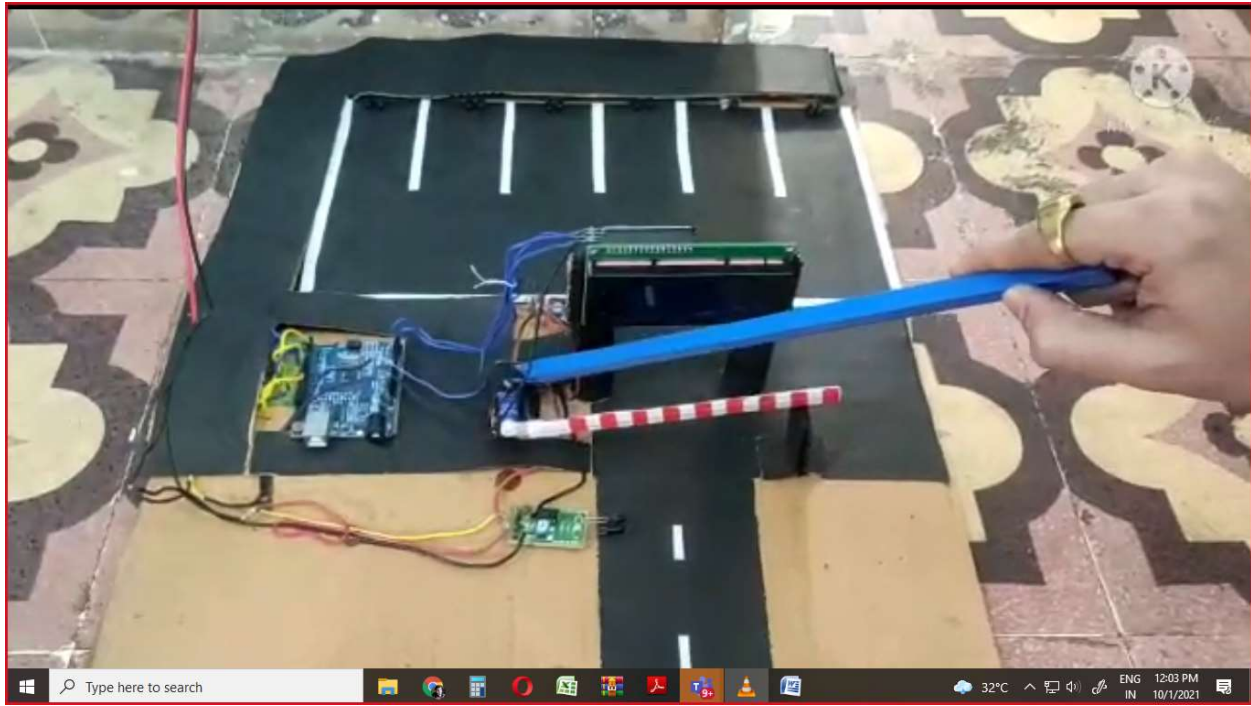
Link was below: <https://teams.microsoft.com/l/meetupjoin/19%3aFNkrMBMzDZagVFCnAZyppT2vifRhhbggD9lvoACZ6Pk1%40thread.tacv2/1632984895724?context=%7b%22Tid%22%3a%228ee8686a-40a5-4a93-9956-a0daa017ae11%22%2c%22Oid%22%3a%2258d2f4ae-73a8-45aa-b5c5-537d86db7b2b%22%7d>

Sr.Number	TITLE OF PROJECT
1	Smart Home System
2	Automatic solar irrigation system by using Arduino uno
3	"Arduino Based Autonomous Fire Fighting Robot"
4	SOLAR TRACKER
5	UNDERGROUND CABLE FAULT DETECTION AND PROTECTION
6	Automatic car parking system using Arduino
7	Arduino detection system with engine locking using GSM & GPS
8	OVERCURRENT PROTECTION USING ARDUINO UNO
9	FINGERPRINT DOOR LOCK SYSTEM
10	Smart parking system
11	Android Based Electrical Appliance Control
12	SMART ELECTRIC SYSTEM
13	PLC AND GSM BASED 3 PHASE INDUCTION MOTOR PROTECTION PANEL
14	Automatic Road Light Controlling System
15	Wireless power transformer
16	CLAP CONTROLLED SWITCH
17	Electricity generating tiles
18	Smart Home System
19	" Smart dual axis solar tracking system using arduino "
20	Smoke detector with Arduino & MQ2 Sensor
21	Arduino based module of break sairán
22	Smart Dustbin
23	Dual axis solar tracking system using arduino
24	The Earthquake Detector
25	DOMESTIC APPLIANCES CONTROL BY IR REMOTE
26	Automatic Street light
27	Smart dustbin using Arduino
28	Arduino based earth quake detector and alarm system



29	ANDROID AND ARDUINO BISE CONTROL BULB
30	hand disposer using arduino R3
31	The Earthquake Detector







## NAME OF EVENT: "CELEBRATION OF NATIONAL CONSUMER RIGHTS DAY"

**Date of Webinar: 24/12/2021**

Webinar Link:- <https://teams.microsoft.com/l/meetup-join/19%3aalefjuAxUmCFRY3G6Ah33NMv5yMNC3H34u5Sctk6M1I1%40thread.tacv2/1640162693754?context=%7b%22Tid%22%3a%228ee8686a-40a5-4a93-9956-a0daa017ae11%22%2c%22Oid%22%3a%2258d2f4ae-73a8-45aa-b5c5-537d86db7b2b%22%7d>

Government Engineering College, Modasa, Electrical Engineering Department has organized a Celebration of National Consumer Rights Day for first-year students " and the date was 24/12/2021. There were around 40 participants. The main focus of the talk was to aware the students about consumer rights and what should they do if so fraud happened to them. Prof. D.U.Thakar coordinated whole the event. The first talk was given by Meghavi Joshi, Deputy Manager CERC is the head of the Complaint department and handles different types of Complaints and tries to resolve them through mediation. Also heads the State Government project of Consumer Advice Center, Consumer Club, and State Consumer Helpline. Under the Consumer Club project coordinates with 125 schools and Colleges and Working in the Consumer field for the last 12 years and also Lesioning with the Department of State Government, Central Government.

The second talk was given by Divya Namboothiri, who did her graduation in Chemistry and post-graduation in Environmental Science and has been handling the ENVIS (Environment Information System) Project, sponsored by Ministry of Environment Forest & Climate Change for 5 years. **The main mandate is on Environmental Awareness and Green Skill Development Programmed.**

Webinar

# National Consumer Rights Day

## 24 December 2021

<https://bit.ly/3Fn7llF>

DATE: December 24 | TIME: 3:00 PM to 4:00 PM

**Ms. Meghavi Joshi**  
Deputy Manager, CERC  
Topic : Consumer Rights & Responsibilities

**Ms. Divya Namboothiri**  
Programme Officer, CERC- ENVIS  
Topic : Environment Literacy: Eco-labeling & Eco-friendly Products

MoEF&CC's Environmental Information System, Resource Partner,  
Consumer Education & Research Centre in Collaboration with  
Department of Electrical Engineering,  
Government Engineering College, Modasa



## MEMORANDUM OF UNDERSTANDING

### MoUs

### Signed By

### Electrical Department, GEC-Modasa-2022

Sr Number	Name of company / Party with whom MoU is done	City of company / Party	Email address of company representative	Contact detail of company representative
1	ENDURA PUMPS	Modasa	ameedp499@yahoo.com	9427528249
2	P&N Engineering and Marketing	Ahmedabad	nikhileurosolar@gmail.com	9558823241
3	NIFA Electronics	Ahmedabad	sales@nifaelectronics.com	9428214344
4	YOGI CABLES	Kalol, Gandhinagar	rajesh@yogicab.com	9879576757
5	RAM ENTERPRISE	Gandhinagar	sales@ramenterprise.co.in	909961490
6	Spark Innovations	Vadodara	sparkinnovations14@gmail.com	Ritul Shah-9429832868
7	Secured Meters	Udaipur	gk.panchal@securemeters.com	Mr. G.K.Panchal-7600028273
8	PC Industry	Gandhinagar	falun@pcindustries.co.in	Falun Shah-9662525251
9	Ekarshi Opensource Foundation	EKARSHI OPENSOURCE FOUNDATION	rt@ekarshi.org	RAJESH TRIPATHY-+917573001478
10	Shree Umiya Electronics Co	Ahmedabad	sueco@hotmail.com	Krunal Patel-9825318974
11	Aplha Tech Automation	Ahmedabad	profilicgujarat.com	Shri Praful Neve-9909926474
12	Ramdev Industries	Modasa	informdevindustries@gmail.com	Bhagvandas Patel-9427339709

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# STUDENT

WILLIAMSBURG COLLEGE

# SECTION

WILLIAMSBURG COLLEGE

## Student Achievement







# CERTIFICATE

OF PARTICIPATION

## SSIP



Education Department  
Government of Gujarat

**STUDENT START-UP AND INNOVATION POLICY (SSIP)**

AND

**GUJARAT KNOWLEDGE SOCIETY**

appreciates Hackathon team member

MALEK MOHAMMADSAHIL NASRULLAMIYA

(Team ID : SGH0014) 45  
of

GEC, MODASA

for active participation in attempting to solve challenges provided  
in Regional Round of Smart Gujarat for New India Hackathon 2019-20  
during 27-28<sup>th</sup> FEB held at CHARVAT.



Shri. G T Pandya, IAS  
Director, Technical Education

Smt. Anju Sharma, IAS  
Principal Secretary, Education





**PARESH VINZAVA**

**Certificate of Completion for**

**AWS Academy Graduate - AWS Academy Cloud Foundations**

**Course hours completed**

**20 hours**

**Issued on**

**12/22/2021**

**Digital badge**

**<https://www.credly.com/go/8LStEt7Q>**

**Parul<sup>®</sup>**  
University

**ELECTRICAL ENGINEERING DEPARTMENT  
FACULTY OF ENGINEERING AND TECHNOLOGY - PIET-DS**

## *Certificate of Merit*

This is to certify that **ANISH PATEL**  
from **GOVERNMENT ENGINEERING COLLEGE MODASA** participated and  
secured **2<sup>ND</sup>** position in **Handbill on Energy Conservation** organized by Electrical Engineering Department, Faculty of  
Engineering and Technology (Parul Institute of Engineering and Technology- Diploma Studies) in association with Technical  
Events Cell, Parul University on July 24, 2021 at Parul University, Vadodara.



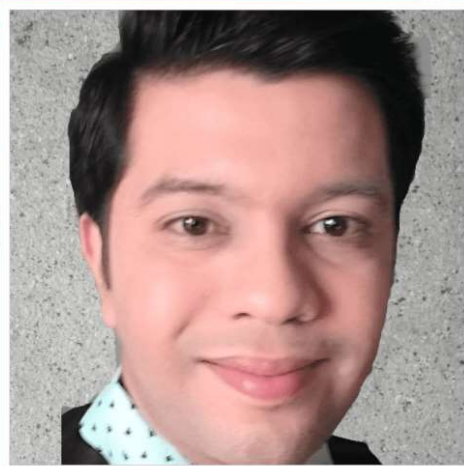
Mr. Parvez Vasovala  
Lecturer, Electrical Department  
TEC Coordinator - Electrical Department  
Parul University



Mr. Om Prakash Shukla  
Manager, Technical Events  
Assistant Professor,  
Mechanical Engineering, Parul University

## WHAT IS A TEACHERS

- ◉ A good teacher can inspire hope, ignite the imagination , and instill a love of learning.
- ◉ T: Talented
- ◉ E: Elegant
- ◉ A: Awesome
- ◉ C: Charming
- ◉ H: Helpful
- ◉ E: Efficient
- ◉ R: Receptive



**PROFESSOR  
DARSHAN THAKAR**

D: Diligent  
A: Awesome  
R: Resourceful  
S: Supportive  
H: Helpful  
A: Awe inspiring  
N: neat

All the efforts and hard work you invested to bring out the best in us can never be repaid in mere words. We can only feel grateful for having a teacher like you !



Ele  
sem:-7

Bambhaniya Jayesh K.

190163109001

PAGE: 01

DATE: / /

## MY DREAM TEACHER

BY:-

BAMBHANIYA JAYESH K.

=> From a young age I have always wanted to teach and inspire others to learn. This was heavily influenced as my dad has always taught me that you can never have too much information and any few new skill you learn is a new skill you can use. I enjoy sharing my knowledge and learning from others. For me personally I believe that teaching is such a valuable career choice as the devotion and passion required from teachers is what is needed to be able to deliver the best education for the students.

=> Everyone has a dream in his or her life that he wants to achieve when he grows up. Some people dream of becoming a doctor and some people want to become a lawyer, teacher. But my dream in life is to become a good teacher. In most professions you have to work many hours. They don't even have a moment to enjoy the life. Teaching



=> Teaching is the only profession that offers spare time on your disposal. But this is not the only reason of my choice. Teaching is my passion as well.

=> I love to teach students. I love teaching, and it gives me a great joy. It is said that there is always an able person behind an able person.

And usually this person is a teacher. I have a great opportunity to express my thoughts and convey my knowledge as I am fond of reading.

=> Teaching is a noble profession. Becoming a teacher would mean shaping the lives of others. I want to become a teacher because I love this profession. Not only that I love it, but also for its greatness. I want to educate my country's youth. I would guide & help them to learn & become good citizens of the country. By becoming a teacher I want to become a guide, philosopher & a real friend of the students. I want to teach in such a way that students can follow their dream.

"BETTER THAN A THOUSAND DAY OF  
DILIGENT STUDY IS ONE DAY  
WITH A GREAT TEACHER."



## My Dream Teacher

In my Dreams how the teacher is ? The teacher is the best respected person in the world. The profession of the teacher is one of the most honorable and very responsible professions. I have infinite words for them but I give respect from bottom of my heart. The teacher creates the future of everyone who is their students. Development of knowledge in the everyone in any field fully depends on his works. how they deliver knowledge to us. I thought god give some special power to teachers who control whole class, handle every students, educating to all. That's why teacher is similar to god who always there for us to give a proper guidance.

During my student life I saw and studied under some many different teachers. Everyone teaches me a same different things that are very helpfull in any stage of my life. They all tried to give us their best knowledge to make me best educated person. Every teacher had his own teaching style. Teachers are the ones who can pull out individuals from the darkness of ignorance into the light of knowledge. Every student, at some point in their life, have had a teacher whom they look up to and admire them. My teacher Miss. Mukta mam has my admire and she inspired me in any situation. she is the best person as teacher i have never met. I am very thankful to all teachers who are be the part of my life. The best teacher of India Dr. Sarvepalli Radhakrishnan. So we all celebrated Teacher's Day on his birthday. Happy Teacher's Day to all.



प्राजपति BHAVIK. RAJESH BHAI  
Electrical (3<sup>rd</sup>)

Date \_\_\_\_\_

Page \_\_\_\_\_

## My dream teacher :-

It is my honour to talk about our dear teachers on this wonderful occasion. We celebrate Teacher's day on 5<sup>th</sup> of September every year in India. 5<sup>th</sup> September is marked by the birth anniversary of Dr. Sarvepalli Radhakrishnan and Teacher's day is celebrated in commemoration of his birthday.

A Teacher is an important person for every one's life. Teacher brings good education and lays the foundation for good habits. I have a teacher in my life who was important to me and my favourite teacher is. He is teaching Maths. He has full knowledge of his subjects. His method of teaching is very interesting and impressive. He loves all students as his own children. He always wears simple and clean clothes. He is very learned, he always helps every student. He likes discipline and well-disciplined students. He never marks any student. He never discourages any

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# Departmental Logo Competition

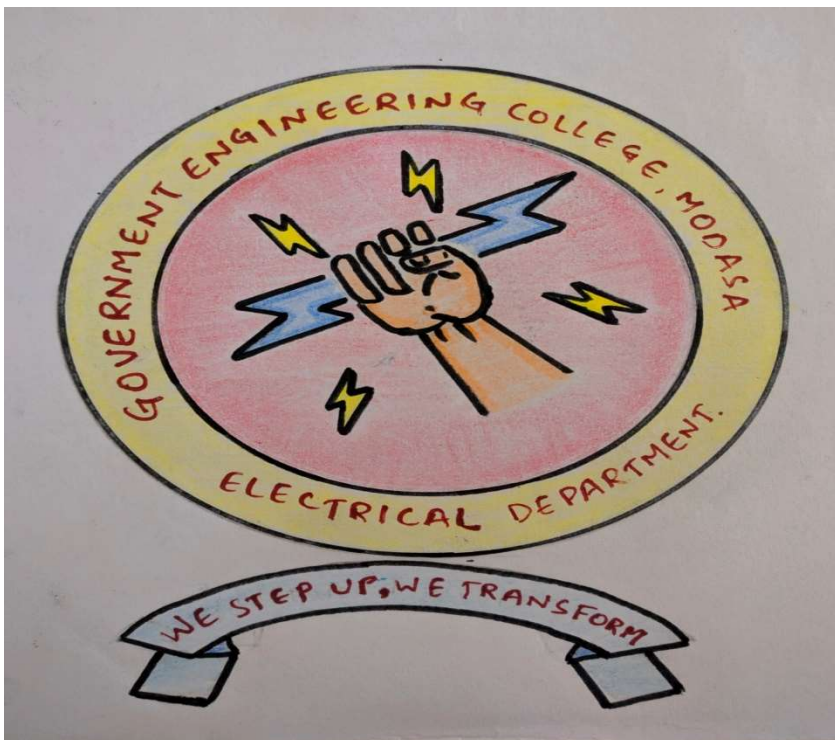


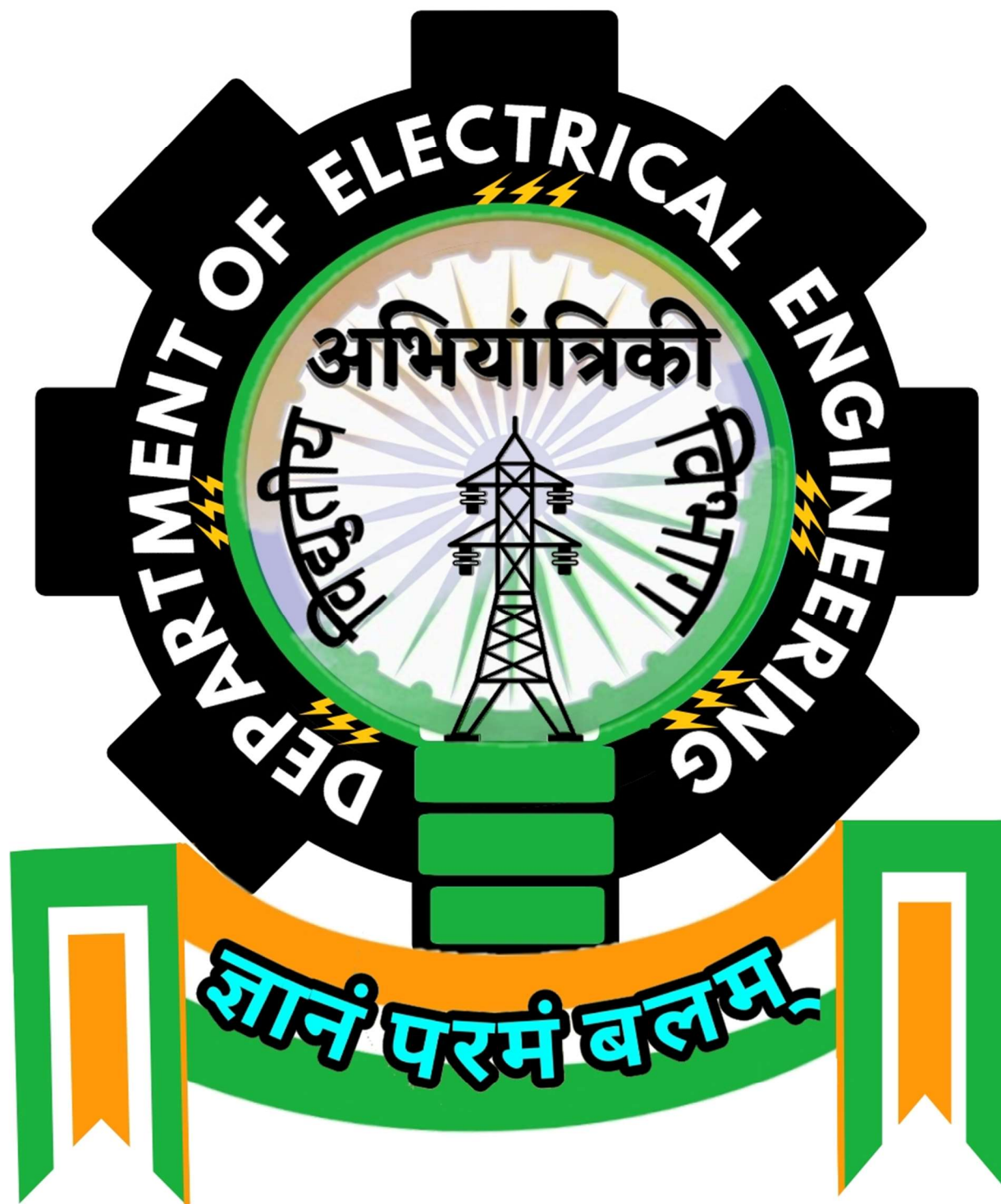
Nitant Wanjari-170160109120



180160109022

CHOUDHARY CHAITANYA PRAKASH





190160109069

VERMA ANAND KUMAR MEVALAL



190163109001

BAMBHANIYA JAYESHBHAI GOVINDBHAI



190163109007

GADHAVI NILKANTH JAGDISHKUMAR



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PANCHAL MILANKUMAR HARSHADBHAI



*ELECTRICAL ENGINEERING, MODASA*

== THE IDEAL MEAL ==



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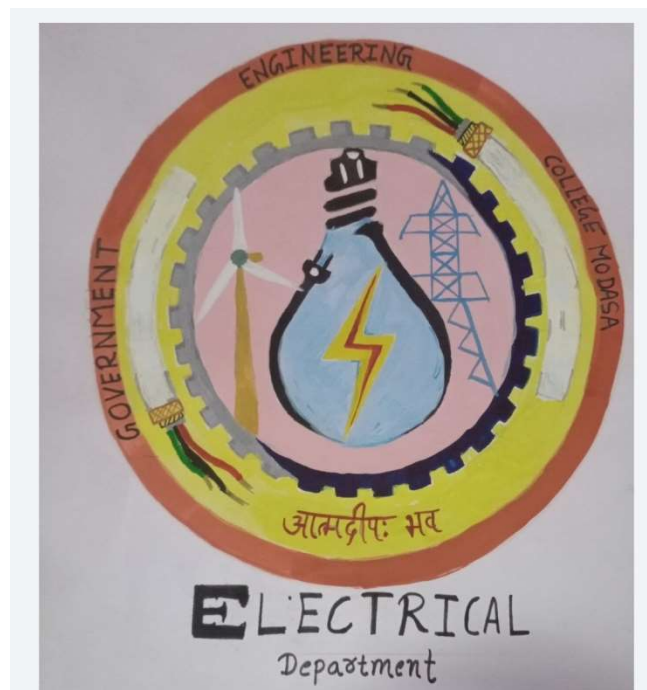
PATEL RAJANKUMAR DILIPBHAI



## ELECTRICAL ENGINEERING DEPARTMENT

180160109086

PRAJAPATI AMITKUMAR RAJESHKUMAR



180160109117

VINZAVA PARESH BHAYABHAI



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Name - Paresh Vinzava  
En. No. - 180160109117(EE)

કાના ક્યા તૂ કે મને, મારે બાથ લેવિ છે (2)  
કાના ક્યા તૂ કે મને, મારે એક વાત કેવી છે

મારે બાથ લેવિ છે, મારે એક વાત કેવી છે (2)  
તારા ચરણો મા પડી મારે હવે આ જંજાડ દેવી છે


કાના ક્યા તૂ કે મને, મારે બાથ લેવિ છે  
કે કાના હવે નથી સહેવાતો આ દુનિયા નો દંભ,  
હવે તુ પાછો ધરતિ ઉપર આવિ ને થંભ.(2)

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જવાળાઓ રાખું છું હૃદયમાં હાર ને હરાવવાની(2)

કઇ દેજો ઓલિ નિષ્ફળતાઓને(2)

કે આગ થી અથડાઈસ નહીં, ખાખ થઈ જઈસ

કે આગ થી અથડાઈસ નહીં, રાખ થઈ જઈસ. 

## ENGINEERING NETWORK STREAK-By Darshan U. Thakar

Entertainment for Professional Engineers

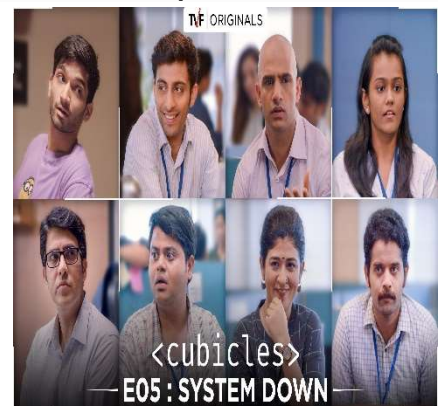
### Rocket Boys

One of the best series of 2022 available on Sony liv app, The story of two extraordinary men Vikram Ambalal Sarabhai and Homi Bhabha who created the history while building the India's future. The series showcase the real hero of India and the encourage the young mind towards the right path. They were the true nation builder of this country. Best part about the storyline is they tried to connect the puzzle the best way possible it starts with a rivalry between Homi Bhabha and Vikram Sarabhai including the characters like CV Raman, JRD Tata and APJ Abdul Kalam. Even though it looks like a rivalry but in this series you will see how both of them tried to build a strong foundation for India in either building space rockets or be it building Atom bombs.



### Cubicles

All the series of viral fever are youth concentrate and narrate the problems of different young people. Cubicles having two-part part one is available on YouTube while part two available on Sony liv as well as TVF play. The story of Piyush Prajapati, a 22-year-old, fresh out of college and recruited like most of his batch-mates into an Indian IT company. From the time he gets his first salary, working weekends, work-life balance, a little bit of heart to all kinds of highs and lows, the show follows many firsts and chronicles the life of Piyush, a typical Indian first jobber and the people around him. People who worked in office cubicles, those will be able to engage from start to end.





## Campus Diaries

Campus Diaries is a coming-of-age drama of six students at Engineering College. The series remained your college days and narrate many problems of engineer in proper ways. Many positive things student can get by this type of series. If any engineer student watches this story than he can release that the engineer is not common man. The series tell that to become an engineer is not an easy task.



## TVF Aspirants



It is the story of three UPSC aspirant's journey and most importantly - their friendship besides all odds! The story of aspirants was engaging and encourage the young mind to do hard work for great position.

## TVF Pitchers

It follows four friends, Naveen, Jitu, Yogi and Mandal, who quit their jobs in order to develop their own start-up company. To achieve success one should do hard work. Face the challenges. Don't give up. Pitchers is not about Achievements. It's about friendship ,love ,Family , growths.



## Shark Tank

Shark means - it's not about just giving money but also helping the businesses grow through their network, other companies and connections which are really really felt that these sharks can't bring in



Shark Tank India is an

Indian business reality television series that airs on SET India. The show is the Indian franchise of the American show Shark Tank. It shows entrepreneurs making business presentations to a panel of investors or sharks, who decide whether to invest in their company.

---

**Shark Tank will connect to each one of you regardless of your age. Hugely informative and enjoyable**

### ***HOSTEL DAZE***

**Through the adventures of four friends 'Hostel Daze' captures what goes inside an engineering hostel in India.**

**After the fun of watching 3 idiots, Chhichhore and happy days (Telugu film) - Amazon prime releases another TV series of the same category. This hostel life TV series shows how hostel life**

**gives you various experiences in positive and negative way. Hostel Daze transports to one of the most elite engineering colleges in the country, comprising students from diverse backgrounds dreaming of a rosy campus life ahead**



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*Electricity is really just  
organized lightning.*

**- A Team Electrozone,  
Electrical Engineering  
Department  
G.E.C - Modasa**