



VIDHYUTVISHWA

NEWSLETTER OF THE ELECTRICAL ENGINEERING DEPARTMENT



VISHWAKARMA GOVERNMENT ENGINEERING COLLEGE

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ABOUT DEPARTMENT

The Electrical Engineering Department started in 1994 and offers bachelor of engineering in electrical engineering. The program has intake of 150 students and is designed and updated keeping in view the constantly changing industrial needs, skills and challenges emerging out of new research. The department is very well equipped with laboratory facilities and constantly upgrading available hardware and software facilities to create research/testing environment leading to a great opportunity to learn and progress in different technical domains. The department has well qualified faculties playing major roles in creation of competent & disciplined engineers to serve the nation.

VISION

To produce comprehensively trained, socially responsible and innovative electrical graduates to contribute to the society.

MISSION

- To develop well equipped laboratories and infrastructure for conductive learning.
- To produce competent and disciplined electrical engineers to serve the nation.
- To help in building national capabilities for excellent energy management and to explore nonconventional energy sources.
- To produce electrical engineers with an attitude to adapt themselves to changing technological environment.
- To enhance entrepreneurship skills through start up.

MINOR DEGREE COURSE IN EV

To expand the domain knowledge and to increase the employability of undergraduate students, keeping in mind the recent trends in engineering and technology, the Electrical Engineering Department has started a Minor Degree Course in Electrical Vehicles in the year 2023.

Electrical Vehicles have been the need of the time, looking at the limitations of fossil fuels and their harmful effects on the atmosphere due to vehicles powered by conventional fuels. The advancement in the fields of Power Electronics and Electrical machines played an important role in making highly efficient electric vehicles having low pollution and better fuel economy.

It is a 20-credit course, including the theory and laboratory sessions. It consists of various courses such as Fundamentals of Electrical Vehicles (Sem IV), Power Electronics for Electrical Vehicles (Sem V), Data Communication and Embedded Systems in Electric Vehicles (Sem VI), Testing and Certification of Electrical and Hybrid Vehicles (Sem VI), and Vehicle Dynamics (Sem VII).

Students from various disciplines can opt out of this minor degree course, they can enhance their knowledge in the areas of EV, receive a minor degree in EV in addition to their regular B.E. degree, and become industry-ready engineers!



PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- Develop and conduct appropriate electrical experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- Acquire and apply new knowledge as needed, using appropriate learning strategies through innovation.
- Work independently on a project or as a team leader.
- Get an employment in various government and private sector companies, pursue research and innovation.

PROGRAM SPECIFIC OUTCOME(PSOs)

- Use various electrical testing tools and equipment in industry, be an entrepreneur, enroll in post-graduate courses, pursue research and innovation in the field of electrical engineering.
- Use knowledge of various electrical machines and electrical power system in solving complicated electrical circuits and networks by using latest design and simulation tools.
- Use technical expertise and suggest modification in existing electrical systems.

Editorial Team

Prof. Roopal R. Kapadia
Prof. Vaibhavi M. Parmar

Prof. Rozina R. Surani
Prof. Grishma P. Pipaliya

Designed By

Dhrumil A. Shukla
(210170109034)

COLLEGE EVENTS / ACTIVITIES

Electrical Engineering Department organised an expert talk on 10th August, 2023 in association with Vigyan Gurjari Under the Student Innovation Fest 2023. The main aim of this talk was to develop a keen interest in innovations done in the field of energy sector. **Mr. Sachinkumar Rathod**, Engineer (R&D) GPRD Cell, GUVNL explained the need of innovation, Role of engineer in it and importance of patent. He explained the latest developments in the research sector by a simple lucid presentation. The event was coordinated by **Prof. A T Mistry**. Around 130 students benefited from this



Electrical Engineering Department in association with VGECA Alumni Association (VAA) organised an expert talk to guide students for improving interview skills that can help them for placements and building their confidence for various recruitment requirements on 25th August, 2023. **Mr. Siddhant Thakkar** Alumnus Electrical Department (2017 Pass out) delivered this talk. The main objective of this talk was to guide the students to prepare an impressive resume and qualities that are required to be polished for appearing in interviews for jobs. Various points to be taken care of for improving interpersonal skills and the importance of strong communication skills were explained. Discussion was done on the skills required in industry which was followed by a detailed query session with students. The event was attended by 45 participants and coordinated by **Prof. A T Mistry**.



ACADEMIC COLLABORATION

Prof. S N Pandya

Delivered an expert lecture on "Power Converters for EV" in ATAL FDP on "Alternate Fuels and Electric Vehicle" organized by L. D. College of Engineering on 22nd December 2023.

Prof. (Dr.) H. D. Mehta

Delivered an expert lecture on "Application of Genetic Algorithms for Optimization" on 29th Nov, 2023 in FDP organised by LDCE from 20th Nov to 1st Dec 2023.

Prof. R R Kapadia

Presented a research paper on "Power quality improvement of grid connected HVAC transmission line with FSIG farm using facts devices" in national conference organised by Vijnana Bharti & Government of Gujarat held at Science City, Ahmedabad during 21 to 24 December, 2023.

FACULTY DEVELOPMENT

Prof. Neepa P Shah

Completed NITTTR organised 1 week STTP from 21st to 25th August' 23) on Professional and Managerial Skills for effective work life balance.

Prof. A Y Solanki & Prof. P J Purohit

Completed two weeks Induction Phase - II training, organised by NITTTR Bhopal from 11th to 22nd September, 2023.

Prof. Sita Agrawal & Prof. Avani Mistry

Attended one week ATAL Academy training on "Alternate fuels and Electric Vehicles" at LD Engineering, Ahmedabad from 18th Dec to 23rd Dec 2023.

Prof. H.B.Vaghela

Completed MOOC NPTEL course on "Yoga and Positive Psychology for Managing Career and Life" from 21st August to 13th October 2023.

Prof. Minaxi Patel & Prof. Rozina Surani

Completed NPTEL 8-week MOOC course on Developing Soft Skills and Personality from July to September 2023.

Prof. Neepa P Shah

Participated in 7 Day National Level Online FDP on ChatGPT & AI Tools for Educators, in-line with OBE organised by St Joseph's College (Autonomous), Irinjalakuda in association with Kerala State Higher Education Council from 19th July to 26th July 2023

Prof. Divyesh Vaghela

Attended one week training on "Train the trainers-automotive systems with sensors" at International Automobile centre of excellence from 30th October to 3rd November 2023.

Prof. B K Patel

Attended one week training on "Train the trainers-Introduction to Electric & Hybrid Vehicle Technology" at International Automobile centre of excellence from 30th October to 3rd November 2023.

STUDENT ACHIEVEMENT



Akriti Maurya, 7th semester and **Rutvik Chaudhary**, 5th semester students of Electrical Engineering department represented TEAM INDIA (GTU Robotics Club) in International ABU ROBOCON - 2023 competition held on 27th and 28th August, 2023 at Cambodia and achieved the 6th rank, as well as received the SMC (Sintered Metal Corporation) Award in the International ABU Robocon 2023.

Sumra Saad, a talented individual from the Electrical Department at VGEC, achieved a remarkable feat under the guidance of **Prof. Divyesh J Vaghela**. Their outstanding accomplishment secured the first position in the Energy sector, earning a coveted cash prize of Rs 2 Lakh. The triumph took place during the New India Vibrant Hackathon 2023, hosted by the Education Department of the Government of Gujarat. The event, centered around the development of a Humidity Controller/Dehumidifier for Panels/Cubicles, unfolded on November 25th, 2023, at PDEU in Gandhinagar.



INDUSTRIAL VISIT

Electrical Engineering Department organised an Industrial Visit for 5th semester students on 4th October, 2023, at **Institute of Plasma Research (IPR)**. The main objective of visit was to make students explore the upcoming field of research that is Plasma. The expert lecture was conducted and various experiments related to application of plasma were demonstrated by **Dr. Gattu Ramesh**. By the virtue of this visit, students got deep insight into Plasma and related technologies. The students were accompanied by **Prof. A Y Solanki** and **Prof. A T Mistry**.



Electrical Engineering Department organised an Industrial Visit for its students as a part of minor degree course on Electric Vehicle, on 15th and 17th April, 2023 at **Mindra Green Energy LLP**. The main objective of visit was to make students explore new technologies in the EV automobile and Solar inverter manufacturing. At the end of the visit, question and answer session was conducted to solve students' queries. The visit concluded with the vote of thanks and lunch for all the attendees. **Prof. D R Dobariya**, **Prof. B K Patel**, **Prof. A T Mistry** and **Prof. P J Purohit** accompanied students during the visit.



PROJECT GRANT

Project grant of Rs. 18.00 lacs had been sanctioned by the Climate Change Department for the project titled "Study of Transportation Associated Carbon Emission and its remedies through Decarbonizing Transport (Electric Vehicle)".

CREATIVE WORKSHOP

Dhrumil Shukla (EE, 5th Sem) conducted the workshop on mobile Photography. The Workshop was organised by VGEC Photography Club on 13th September in A block Auditorium which was attended by 180+ students. In coordination with **Dr Vaseem Qureshi** (Faculty Coordinator).



PLACEMENT DATA

Voltas
4

Micron
2

L&T
2

Keyence India Pvt Ltd.
1

**Hitachi Hi-Rel Power
Elect. Pvt. Ltd.**
7

**Torrent Power Ltd
(Renewable energy)**
8

Schneider Electric
1

**Torrent power
AMGEN**
2

Torrent Power Ltd.
3

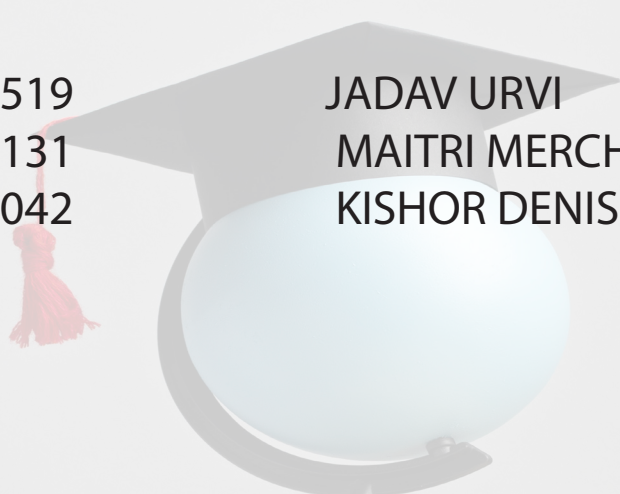
Newen System
3

**Transformer &
Rectifier Ltd**
2

ACADEMIC ACHIEVEMENTS

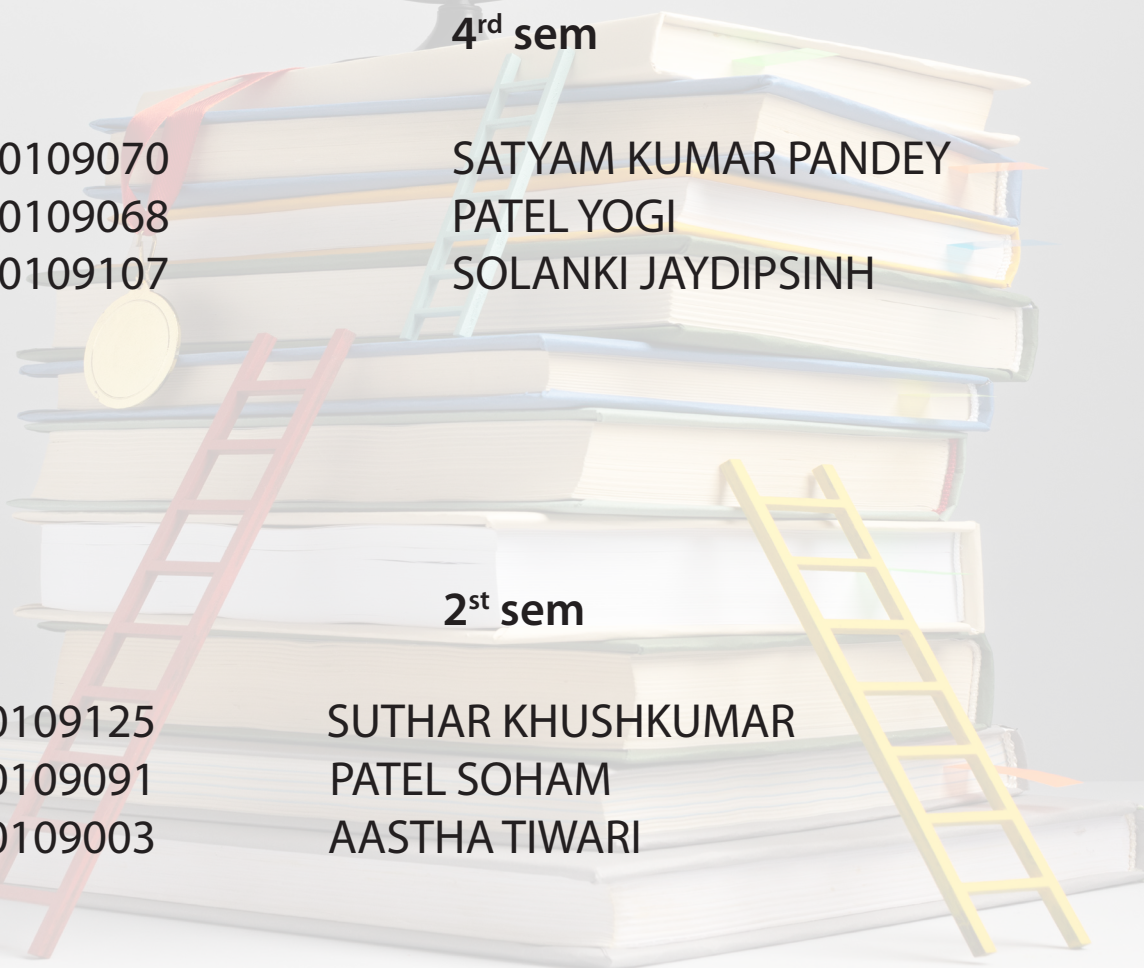
6th sem

SPI



210170109519	JADAV URVI	9.26
200170109131	MAITRI MERCHANT	9.09
200170109042	KISHOR DENISH	9.00

4rd sem



210170109070	SATYAM KUMAR PANDEY	8.78
210170109068	PATEL YOGI	8.78
180170109107	SOLANKI JAYDIPSINH	8.57

2st sem

220170109125	SUTHAR KHUSHKUMAR	9.28
220170109091	PATEL SOHAM	8.61
220170109003	AASTHA TIWARI	8.44

CREATIVE CORNER

I accepted her with all her flaws,even the ones she thought were
hidden
Confided each and every secret,in whichever diary she may have
written
Loved gazing into her eyes,as I forgot of the miseries of life
The beauty of the surroundings somehow became forbidden

Strolling under the moonlit sky,which we both admired
The stars seemed to be telling us a story,the one which we
desired

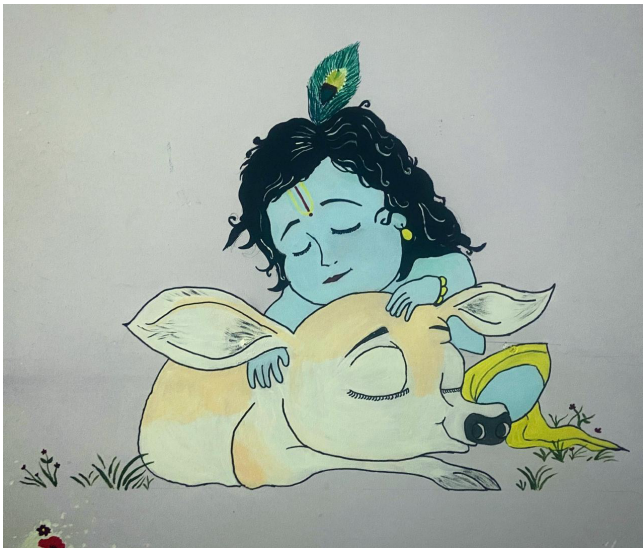
It was like universe sending us a message
To never quit,as to live each other's love was required

Spent many sleepless nights,keeping each other awake
Talking to each other,still millions of memories to make
Our love stands strong even if we are separated
Since in order for moon to come and shine,the sun has to forsake

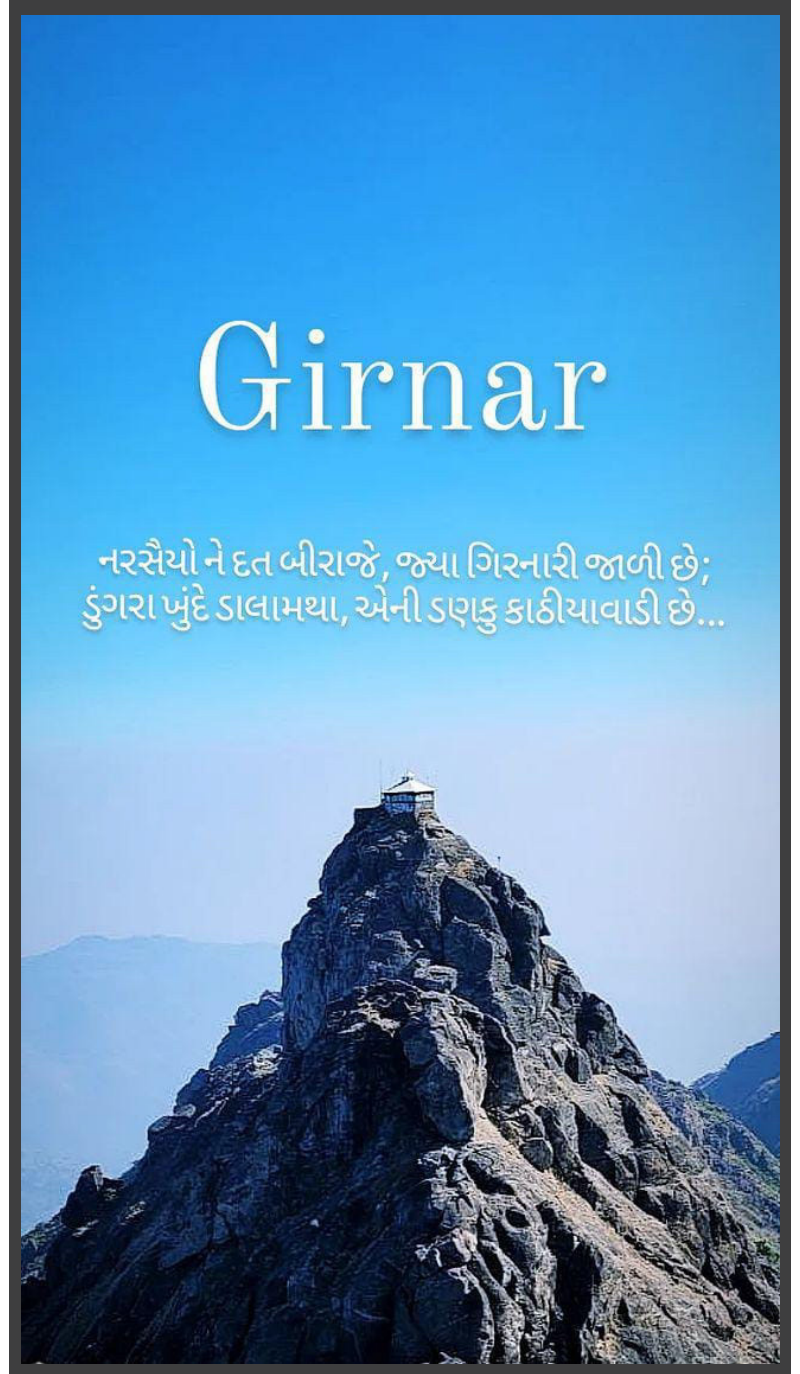
Harsh Shah
(210170109005)



Solanki Jaydipsinh Javantsinh
(180170109107)



Prof. Nisha Lodha



Girnar

નરસૈયો ને દત બીરાજે, જ્યા ગિરનારી જાળી છે;
ડુંગરા ખુંદે ડાલામથા, એની ડણકુ કાઠીયાવાડી છે...

Dhruvil Shukla(210170109034)