

VIDHYUTVISHWA

Newsletter for the Electrical Engineering Department



Vishwakarma Government Engineering College, Ahmedabad

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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 conducive 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.

Program Educational Objectives (PEO's)

- Develop and conduct appropriate electrical experimentation, analyse 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 (PSO's)

- Apply electrical engineering knowledge to analyze, test, and develop innovative solutions for industries and entrepreneurship which aim to address the relevant societal and environmental issues.
- Utilize various modern electrical instruments and simulation tools to design, analyze, and optimize complex electrical circuits and networks, incorporating existing and emerging technologies.
- Exhibit technical expertise in evaluating and modifying electrical systems for energy efficiency, automation, interdisciplinary collaboration, and real-world problem-solving.

Editorial Team

Prof. Vaibhavi M Parmar

Prof. Grishma P Pipaliya

Designed By

Maharshi B Joshi (240173109009)

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Vishakha Rajput (230170109103)

Department Events / Activities

The Electrical Engineering Department of VGEC held a one-week training on **"Smart Electric Drive"** with Entuple Technologies, led by expert Mr. Dharnidharan. Participants learned about Induction, PMSM, and BLDC motor drives through hands-on experience. 22 attendees benefited from exposure to modern electric drive technologies, coordinated by Prof. D. J. Vaghela and Prof. P. J. Purohit.



On April 25, 2025, VGEC's Electrical Engineering Department organized an industrial visit for 4th-semester students to **Mindra Green Energy LLP**. The visit focused on EV fast charging station manufacturing, including rectifiers, converters, controllers, and cooling systems. Coordinated by Prof. D. J. Vaghela, it linked theoretical knowledge with practical applications, enhancing student interest in green energy technologies.



The VGEC IEI Student Chapter in the Electrical Engineering Department hosted an expert lecture on **"Transformer Design"** by Dr. Dhruvesh M. Mehta. He shared valuable industrial insights and practical knowledge, helping electrical engineering students connect theory with real-world applications.



Department Events / Activities

The SSIP Cell of the Electrical Engineering Department at VGEC Chandkheda organized visits to the **Atal Incubation Centre (AIC)**, GTU on February 10th and 24th, 2025, to foster innovation and entrepreneurship among students. Participants explored labs, interacted with startups, and learned about prototyping, robotics, and collaborative spaces. Coordinated by Prof. Rozina Surani, the visits successfully increased student engagement with the startup ecosystem.



The Electrical and Mechanical Engineering Departments at VGEC, Chandkheda held a One-Week **ANSYS Training** from March 24-28, 2025, chaired by Prof. S. N. Pandya and Prof. R. P. Vyasa. Experts from Ansys Software Private Limited conducted hands-on sessions on structural analysis, CFD analysis, RF Design, and Electromagnetics. The program was coordinated by Prof. A. T. Mistry, Prof. K. A. Vyas, Prof. M. M. Modan, and Prof. D. S. Mehta.

The VGEC Electrical Engineering Department hosted an expert lecture on **HVDC Transmission** by Dr. R. Balasubramanian from IIT Delhi. The talk covered HVDC technology fundamentals, its advantages over HVAC, and its significance in power systems. It also discussed India's current and planned HVDC projects and their contributions to the National Grid, aligning with the vision of 'One Nation, One Grid, One Frequency.'



Faculty Development

Prof. Avani Mistry

One day Exhibition on “**Legacy of Innovation**, Contribution of ancient India in Science and Technology” organized by Electrical department in association with Vigyan Gurjari at 4th February 2025

Prof. P J Purohit

The VGEC IEI Student Chapter in Electrical Engineering hosted a lecture on “**Transformer Design**” on April 19, 2025. Dr. Dhruvesh M. Mehta shared practical insights from his industrial experience, linking theory with real-world applications for aspiring electrical engineers.

Dr. Divyesh J. Vaghela and Prof. Pulin J. Purohit

Completed a one week training on “**Smart Electric Drive**” for faculty members of VGEC from 05/05/2025 to 09/05/2025.

Prof. Rozina Rajesh Surani

Completed a seminar on **The Promise of Green Hydrogen: A Comprehensive Overview** on 17 May 2025.

Prof H. D. Mehta

Course topper in NPTEL Swayam course entitled “**Computer aided applied single objective optimization**” conducted by IIT Guwahati from Jan-25 to Apr-25

Dr. M H Pandya

On line webinar “**The Role of AI Tools in Education**” organized by KCG, Department of Education Gujarat 22/05/2025.

Vaibhavi M Parmar, Rinal K Ahir, Nilam B Panchal, Dharmistha V Makwana, Mehulsinh Jadeja, Dilip R Dobariya

Completed 8 Week NPTEL based MOOC training on “**Introduction To Psychology**” in April 2025.

Vaibhavi M Parmar, Rinal K Ahir, Nilam B Panchal, Dharmistha V Makwana, Mehulsinh Jadeja, Dilip R Dobariya

Completed 12 Week NPTEL based MOOC training on **Psychology of Stress, Health & Well-Being** in April 2025.

Faculty Development

Prof H. D. Mehta

*Delivered an expert talk on "**Optimal Transformer Design Using Genetic Algorithms**" on March 6, 2025, at LDCE during the STTP "Emerging Trends and Practices in Optimization and Sustainable Technology," which ran from June 2 to June 13, 2025.*

Prof H. D. Mehta

*Presented an expert talk on "**Application of Differential Evolution for Engineering Optimization**" on April 6, 2025, during the STTP titled "Emerging Trends and Practices in Sustainable Technology" at the LDCE, NITTTR extension center, from June 2 to June 13, 2025.*

Sita S Aggrawal

*Completed a one week ATAL FDP on "**Renewable & Sustainable Microgrid Operation, Control & It's Application**" At GEC Bharuch from 20/01/2025 to 25/01/2025.*

Faculty Accomplishments

***Dr. S N Pandya (Electrical Engineering Department)** has received an award of research grant of Rs. 25 lakh for Research Promotion under Technical Education-STEM.*

***Prof. HD Mehta (Electrical Department)** became course topper in NPTEL Swayam course entitled "**Computer aided applied single objective optimization**" conducted by IIT Guwahati.*

***Prof. HD Mehta** presented on "**Optimal Transformer Design Using Genetic Algorithms**" on June 3 and "**Application of Differential Evolution for Engineering Optimization**" on June 4 during the STTP at LDCE, NITTTR center, RCTI from June 2-13, 2025.*

Student Spotlight

1. **Arpit Kumar**, a 2nd semester Electrical Engineering student, secured the **8th** rank in 2nd semester Electrical Engineering across Gujarat With 8.98 CPI.
2. **Suthar Khush**, a 6th semester Electrical Engineering student, secured the **1st** rank in 6th semester Electrical Engineering across Gujarat With 9.59 CPI.
3. **Pal Shubhajeet**, a 6th semester Electrical Engineering student, secured the **4th** rank in 6th semester Electrical Engineering across Gujarat With 9.11 CPI.
4. **Shukla Shushil**, a 6th semester Electrical Engineering student, secured the **6th** rank in 6th semester Electrical Engineering across Gujarat With 8.89 CPI.

Department Rank in GTU Results		
Semester	GTU Rank	%Result
2 nd	4 th	54.68%
4 th	4 th	50.60%
6 th	3 rd	86.33%
8 th	1 st	100%

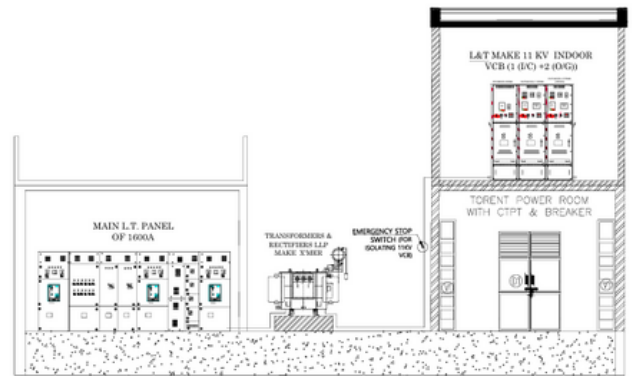
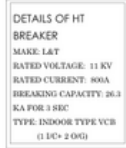
Student Spotlight

Electrical Department Placement		
Company	Offers Made	Package In LPA
Adani	27	6.5
DESIGN ENGINEER ELECTRICAL	4	6
CMR Green	2	3.6
Hitachi- Hirel	3	3.4
Thermax	2	5
India Japan Limited	3	3.17
Multispan	3	4 to 6
Smart Meters	3	3.36
TBEA	5	4.5
Torrent SuGen	2	4.5
Essar Power	1	5
Polycab	2	3.6

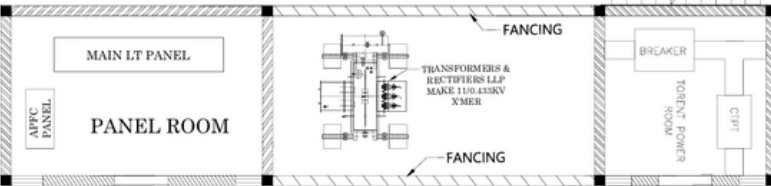
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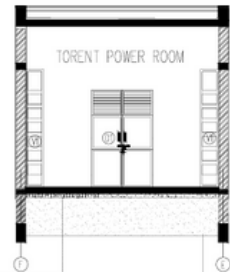
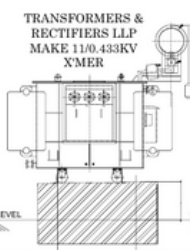
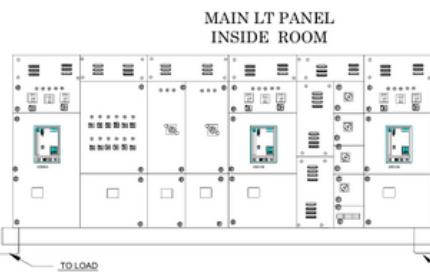
1st FLOOR



FRONT VIEW



GROUND FLOOR

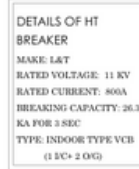
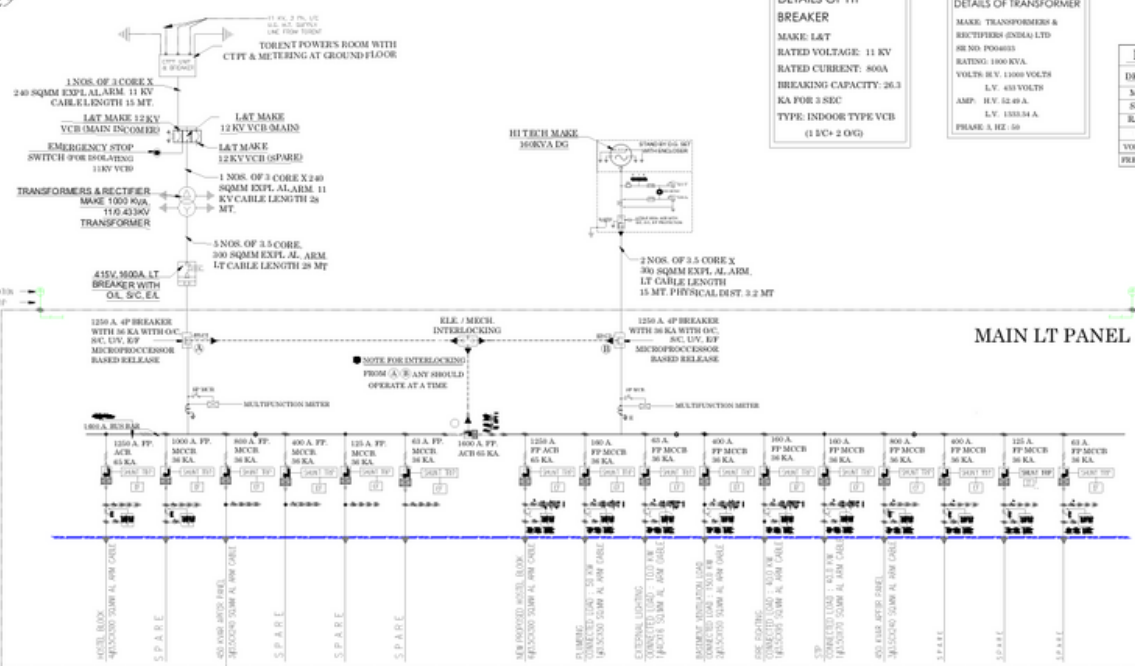


5 NOS. OF 3.5 CORE,
300 SQMM EXPL AL. ARM.
LT CABLE LENGTH 20 MT

1 NOS. OF 3 CORE X 240
SQMM EXPL ALARM. 11
CABLE LENGTH 28 MT.

1 NOS. OF 3 CORE X
240 SQMM EXPL ALARM. 11
KV CABLE LENGTH 15 MT.

MS J1223
No. 29



DETAILS OF 160 KVA DG SET		
DETAILS	ENGINE	ALTERNATOR
MAKE	CUMMINS	STAMFORD
SER NO.	32E84548892	N23E202703
RATING	154 KW	160 KVA
RPM	1500	1500
VOLTRAMP	————	415 V / 222.6 A
FREQUENCY	————	50

MAHARSHI B JOSHI (240173109009)

CREATIVE CORNER



VISHAKHA RAJPUT (230170109103)