JAN'25- MAR'25

# NEWSLETTER

RICAL ENGINEERING DEFAMILIAN SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY SURAT

#### DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering is one of the oldest departments at Sardar Vallabhbhai National Institute of Technology. The department actively conducts various academic and research activities throughout the year. This newsletter presents a brief about various activities from January 2025 to March 2025.



#### HIGHLIGHTS

- Research Publications
  - Journals 03
  - Conferences 02
- Projects 01

### **Department Vision**

To be the leading department disseminating globally acceptable education, effective industrial consultancy and relevant research output.

#### **Department Mission**

To be a global centre of excellence in technical education and innovation producing competent professionals with integrity.

#### **Programme Educational Objectives**

- Graduates will be able to solve engineering / industrial problems by employing various learning resources and modern tools.
- Graduates will be able to design products to meet social, economic and environmental demand by innovative ideas.
- Graduates will be able to investigate complex problems and take up research and development work in the allied fields.
- Graduates will be able to communicate effectively through oral and written presentation of technical reports, adopting lifelong learning with integrity and ethics; and they will have interpersonal skills required to lead and nurture diverse teams.



**DR. PRANAV B. DARJI** Head, DoEE SVNIT, Surat

Welcome to the Department of Electrical Engineering at SVNIT, Surat. The Department has 24 well-qualified faculty members actively involved in academics, administrative duties, research, and consultancy. The broad research areas are Power Electronics, Electrical Drives, Power Systems, Control and Instrumentation. The faculty published several research papers indexed in SCIE, SCI, ESCI, Web of Science, Scopus, etc. Also, the worth of present ongoing and completed projects is more than two crores.

The Department of Electrical Engineering offers B. Tech and M. Tech programmes. The M. Tech specializations are Power Electronics and Electric Drives, Power Systems and Instrumentation and Control. The Department of Electrical Engineering has many PhD scholars, and a significant amount of research is ongoing.

I am happy to present the 18th issue of the Department's quarterly newsletter. The present issue includes new administrative duties, STTPs/Workshops, student placement details, Research publications and projects, and faculty and student achievements.

I acknowledge the efforts of the committee members Dr. J. Venkataramanaiah, Dr. G. Sushnigdha and Dr. Suresh Lakhimsetty in editing this issue. I also thank Mr. Mayank Bhagat for assisting the committee members.

# **RESEARCH PUBLICATIONS**

JOURN

#### Journals

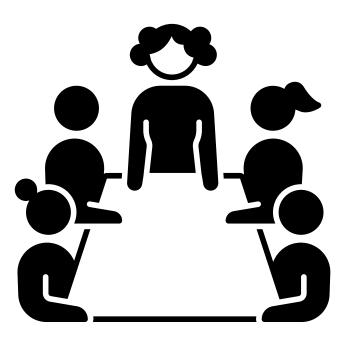
- Aliasgar P. Shayer and Mahmadasraf A. Mulla, "Indirect current controlled VSC based RPFC for power management in a railway power supply system," Turkish Journal of Electromechanics and Energy, vol. 9, no. 3, pp. 124–130, December 2024.
- Aliasgar P. Shayer and Mahmadasraf A. Mulla, "A railway power flow controller with a delta-star transformer and a four-leg voltage source converter," International Journal of Circuit Theory and Applications, February 2025.
- Anvi N Suthar, J. Venkataramanaiah, and Y. Suresh. "Conventional, widebandgap, and hybrid power converters: A comprehensive review." Renewable and Sustainable Energy Reviews 213 (2025): 115419.

# CONFERENCES

 U. S. Kumar, S. Halder and B. K. Sethi, "Comprehensive Review of Cybersecurity Vulnerabilities and Safety Concerns in Autonomous Vehicles," 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 01-06, doi: 10.1109/SSDEE64538.2025.10968224.

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 S. S. Sahoo, K. Chatterjee and B. K. Sethi, "An Adaptive Non Superconducting Fault Current Limiter for Low Voltage Ride-Through for Protection of DFIG Wind Generator," 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 1-6, doi: 10.1109/SSDEE64538.2025.10967940.





# INSTITUTE/DEPARTMENT LEVEL FACULTY NEW ROLES/RESPONSIBILITIES



#### DR. A.K.PANCHAL, PROFESSOR

APPOINTED AS HEAD OF THE DEPARTMENT OF MANAGEMENT STUDIES



DR. HIREN G. PATEL, ASSOCIATE PROFESSOR

APPOINTED AS ASSOCIATE DEAN (ACADEMIC-PG)







# SANCTIONED PROJECT

- **Project Title:** Research in indigenous development of EV sbu-systems (E-RIDES)
- **Funded:** ANRF (Mission for advancement in highimpact areas (MAHA): EV-Mission), India
- Lead Institute: IIT Bombay
- **Participation Institutes:** SVNIT Surat, IIT Delhi, IIT Kanpur, IIT Bhubaneswar and IIT Gandhinagar
- Budget Sanctioned to SVNIT: Rs. 120 Lakhs
- **PI (s)**: Dr. Suresh Lakhimsetty, Dr. Mahesh Aeidapu & Dr. Mahmadasraf A. Mulla







# **INDUSTRIAL VISIT**

Place of Visit: State Load dispatch Centre, Gotri, Vadodara, Gujarat
Date of visit: 22/03/2025
Organized by: Department of Electrical Engineering, SVNIT Surat
Organized for: M.Tech 1st year Power system & Power Electronics
Students Faculty Co-ordinators: Prof. Pranav Darji (HOD Electrical Dept.)
& Asst. Prof. Basant kumar Sethi (Faculty Electrical Dept.)





### **FACULTY ACHIEVEMENTS**

- Dr. A.K.Panchal have become an Editorial board member in a Springer Journal Discover Nano an SCIE and Scopus journal.
- Dr. Rakesh Maurya, Associate Professor, DoEE become IEEE Senior Member.
- Dr. Mahesh Aeidapu joined the Ex-Com of IEEE Gujarat Section IES/IAS/PELS Joint Chapter from January 2025



### **STUDENT ACHIEVEMENTS**

#### List of GATE-achievers from pre-final year

Sr. No.	Name	GATE Rank	Image
01.	Virendra Badgotya (U22EE064)	<u>DA-</u> 729 <u>CS-</u> 10873	STORE STRATENDRA BADGOTY ATTOLOGOTY ATTOLOGO
02.	Sarthak Tyagi (U22EE088)	<u>EC-</u> 1671 <u>EE-</u> 3482	20225ABTH44, - + PG, - + PG, - + OF, -
03.	Devid Kumar (U22EE047)	<u>EE-</u> 1923	A D D D E V D D E V D D E V D D E V D D E V D D E V D D E V D D E V D D E V D D E V D D E D E







## **STUDENT ACHIEVEMENTS**

04.	Gyan Ujjwal (U22EE109)	<u>EE-</u> 2659	Por contraction of the state of
05.	Shubham Shriwastva (U22EE007)	<u>EE-</u> 4829	202565HUBHAMSAN PO25650 PO2565HUBHAMAN PO2565HUBHAMSAN PO2565HUBHAMSAN
06.	Pankaj Darji (U22EE066)	<u>EE-</u> 6387	PANKA PA
07.	Divya Kumar (U22EE089)	<u>EE-</u> 8223	ABG784







### **STUDENT ACHIEVEMENTS**

 Mr. Aliasgar Shayer awarded First Prize in Poster Presentation, in Research and Innovation Conclave 2025, held in institute. It was organized by the Research and Consultancy section of institute.





Roll No	Student Name	Company	СТС
U21EE010	Sanjana meena	BPCL	20.10
U21ee024	Divya Thakar	BPCL	20.10
U21EE051	Pooja Agarwal	BPCL	20.10
U21EE055	Arpita Kalda	BPCL	20.10
U21EE077	Aman Kapuriya	BPCL	20.10
U21EE094	Ankit Kumar Das	BPCL	20.10
U21EE097	Atharav karhad	BPCL	20.10
U21EE106	Kriya	BPCL	20.10
U21EE109	Prachi Gupta	BPCL	20.10
U21EE003	Pamidimukkala Narun Chowdary	Aspect Ratio	14
U21EE001	Aryan Kumar	O9 Solutions	10.44
U21EE004	Khushi Gohil	HMSI	10.32
U21EE012	Deepak Kumar	AMNS	8.5



Roll No	Student Name	Company	СТС
U21EE014	Prakhar Shrivastava	Aspect Ratio	14
U21EE016	Khushi Choudhary	26 Miles capital	9
U21EE022	Dev Yadav	Deloitte	8.1
U21EE025	Pradyumn Srivastava	O9 Solutions	10.44
U21EE033	Abhinav Sharma	Colgate palmolive	13.55
U21EE043	RIYA GUPTA	Mastercard	13.4
U21EE046	Ankush MahendraKumar Mishra	ZS Associates	13.65
U21EE049	Neel Mistry	AMNS	8.5
U21EE054	Tanmay Agrawal	Accenture	10.89
U21EE056	DHAMESHIYA JIGNESH RASIKBHAI	AMNS	8.5
U21EE062	Neeleshwari	AMNS	8.5
U21EE065	Rahul Nautiyal	ZS Associates	13.65
U21EE066	Abida khatun Polara	Micron	13.17



Roll No	Student Name	Company	СТС
U21EE069	Manthan Patel	Merilytics	8.5
U21EE072	Gnanesh Saddanapu	HMSI	10.32
U21EE074	Dhruvank Shah	AMNS	8.5
U21EE076	Arjama Mohanty	HMSI	10.32
U21EE078	Pranav Dua	Searce	12
U21EE081	Aditi Tapariya	Mastercard	13.4
U21EE087	Shivam Yadav	Jindal Stainless	8
U21EE089	Gaurav Singh Tomar	Piramal Finance	12.54
U21EE092	Pranshi Lavti	Mastercard	13.4
u21ee099	DEVATHI VENKATA SAI ESWAR	Arcelor Mittal Design	8.5
U21EE100	Abhishek Mehta	NSE	8
U21EE108	Rajaiya Jaydev	Jindal Stainless	8
U21EE110	Ganesh Ranjan Yadav	SunPetro	8



Roll No	Student Name	Company	СТС
U21EE112	Rohit Sultania	O9 Solutions	10.44
U21EE113	Gourav Gupta	TCS INE	9.08
U21EE114	Shalini Raman	NSE	8



Roll No	Student Name	Company	СТС
P23EL001	SALONI VALODRA	KPIT	15
P23EL003	sagar bhayani	Varroc Engg	10
P23EL004	Akshil Goti	Varroc Engg	10
P23EL002	JAVAL GADHER	Varroc Engg	10
P23IC005	HARSH TORANI	Sunpetro	9.5

#### **PH.D. AWARDEE**

#### DS18EL004 07/01/25

#### **KOTHAVADE JAYESH UDDHAV**

"STRATEGIES FOR REDUCTION OF STRAY LOSSES AND ELECTROMAGNETIC FORCES IN CONVERTER TRANSFORMER"

**SUPERVISOR - DR. PRASHANTA KUNDU** 

DS17EL008 03/02/25

ATHUL VIJAY P.K

"REALIZATION OF ULTRACAPACITOR AS SOLE ENERGY STORAGE DEVICE IN ELECTRIC VEHICLE WITH PROPOSED REGENERATIVE BREAKING AND FIELD WEAKENING CONTROL ALGORITHM"

**SUPERVISOR - DR. VARSHA A. SHAH** 

#### DS17EL009 03/02/25

#### **UJJVAL B VYAS**

"DEVELOPEMENT AND IMPLEMENTATION OF REGRESSION BASED BATTERY MODEL AND TEMPERATURE CONTROLLED FAST CHARGING STRATEGY FOR LITHIUM ION BATTERY IN EV APPLICATION"

**SUPERVISOR - DR. VARSHA A. SHAH** 

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#### TEAM



**GANGIREDDY SUSHNIGDHA** ASSISTANT PROFESSOR DOEE, SVNIT SURAT



J.VENKATARAMANAIAH ASSISTANT PROFESSOR DOEE, SVNIT SURAT



SURESH LAKHIMSETTY ASSISTANT PROFESSOR DOEE, SVNIT SURAT



MAYANK BHAGAT SENIOR TECHNICIAN DOEE, SVNIT SURAT