

JULY'23- SEPTEMBER'23

NEWSLETTER

SARDAR VALLABHBHAI
NATIONAL INSTITUTE
OF TECHNOLOGY SURAT

इलेक्ट्रीकल इंजीनियरिंग विभाग
ELECTRICAL ENGINEERING DEPARTMENT

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 July 2023 to September 2023.



☑ HIGHLIGHTS

- Research Publications
 - Journals -02
 - Conferences - 04

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.



PROF. A.K.PANCHAL

Head, DoEE
SVNIT, Surat

Welcome to the Department of Electrical Engineering at SVNIT! Our department is well-known for student-focused teaching-learning, engineering, and technology practice-oriented research and education. Nearly 40 faculties and staff are dedicated to imparting their high-quality education and research experiences to our students and scholars to become leaders of the next generation of technocrats with the highest professional achievements. The curricula and well-equipped laboratories are designed to prepare the workforce to overcome the present and emerging technological challenges of the century.

As a research-oriented department, our research activities are extended to the major areas of Electrical Engineering, including power and renewable energy systems, power electronics and drives, instrumentation, and control. Our faculty research is funded by several national and state agencies (SERB-DST, MeitY, CSIR, INAE, MHRD, GUJCOST, etc.). Our research in cutting-edge technology is published in the national and international referred journals with the IEEE, IET, Taylor & Francis, Elsevier, Springer, and other reputed publishers. Our department offers testing and consultancy services to the nearby industrial belt HAZIRA, Surat Municipal Corporation, power distribution companies, etc.

With nearly 500 UG, 150 PG and 100 PhD scholars, we are one of the largest and most prestigious departments within the Gujarat state. Our graduates place themselves in prestigious positions in the corporate, government, and educational institutions. Many fresh B. Tech. and M. Tech. graduates opt for higher education in the reputed international and national institutions (IISc, IITs, IIMs and others). We are dedicated to bring our education and research programmes to higher recognition in national and international level. I invite you to visit our website for exploring the department faculties, research activities, and exciting opportunities that await you here at DoEE.

I am happy to present the 11th issue of the Department's quarterly newsletter. The major parts of this collection include short-term training programmes organised (in the virtual mode), activities of Electrical Engineering Society, research publications and projects. 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 and Mr. Vishant Bayani for assisting the committee members.

"Quality means doing things right and in time when no one is looking at you." Henry Ford said for the successful business, and we do believe and follow it.



RESEARCH PUBLICATIONS

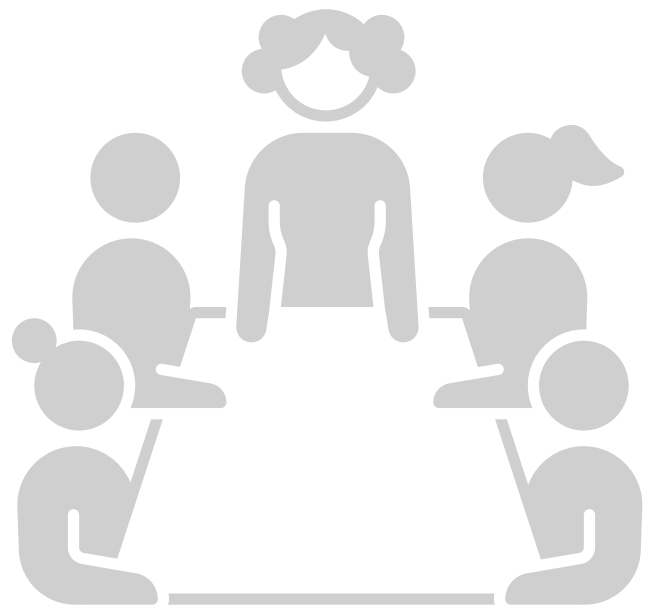
Journals

- Ambati Bhimaraju, **Aeidapu Mahesh**, Sukhdev Nirbheram Joshi, Feasibility Study of Solar Photovoltaic/Grid-Connected Hybrid Renewable Energy System with Pumped Storage Hydropower System using Abandoned Open Cast Coal Mine: A Case Study in India, *Journal of Energy Storage*, Volume 72, Part A, 15 November 2023, 108206. (DOI:10.1016/j.est.2023.108206)
- Sukhdev Nirbheram Joshi, **Aeidapu Mahesh**, Ambati Bhimaraju, Techno-Economic Analysis of Grid-Connected Hybrid Renewable Energy System adapting Hybrid Demand Response Program and Novel Energy Management Strategy, *Renewable Energy*, Volume 212, Pages 1-16, May 2023 (Doi: 10.1016/j.renene.2023.05.017)



CONFERENCES

- Mohite, U.L., **Patel, H.G.**, Non-linear kernel-based error function for extended Kalman filter oriented robust control of cancer chemotherapy, Multimedia Tools and Applications 3rd International Conference on Sustainable Energy and Future Electric Transportation, 09 - 12 August 2023.
- Kamna Singh, Khyati Mistry, **Hiren G Patel**, "Optimal Placement of Electric Vehicle Charging Station and DG in a Distribution System for Loss Minimization", 3rd International Conference on Sustainable Energy and Future Electric Transportation, 09 - 12 August 2023.
- **K. V. Praveen Kumar** "Experimental Verification of PTC of OEW-PMSM drives with one step delay compensation" (Accepted)
- **K. V. Praveen Kumar** "Predictive Torque Control of PMSM with speed fuzzy logic controller" (Accepted)



FAREWELL FUNCTION

Farewell function to Dr. Rahul Radhakrishna on 28-07-2023.
Congratulations to him for joining NIT Calicut as an Assistant Professor in August 2023.



Short-Term Training Course / Workshops

- A short course on “Control of Power Electronic Converters in Renewable and Transportation Applications” (CPRTA 2023) organised by DoEE, SVNIT-surat, in association with NaMPET phase-III from 28th September to 2nd October 2023.

Conveners: Dr. R. Chudamani, Dr. M. A. Mulla,

Coordinators: Dr. Rajasekharareddy Chilipi, Dr. K. V. Praveenkumar, Dr. J. Venkataramanaiah, Dr. Suresh Lakhimsetty, Dr. Aeidapu Mahesh.



FACULTY PROMOTIONS



NAME: DR. RAJASEKHARAREDDY CHILIP
DESIGNATION: ASSISTANT PROFESSOR GRADE-I
DATE OF JOINING: 25/09/2023

NAME: DR. SANJAY TOLANI
DESIGNATION: ASSISTANT PROFESSOR GRADE-I
DATE OF JOINING: 25/09/2023



NAME: DR. SUKANTA HALDER
DESIGNATION: ASSISTANT PROFESSOR GRADE-I
DATE OF JOINING: 25/09/2023



FACULTY PROMOTIONS



NAME: DR. KUNISETTI. V. PRAVEEN KUMAR
DESIGNATION: ASSISTANT PROFESSOR GRADE-II
DATE OF JOINING: 25/09/2023

NAME: DR. GANGIREDDY SUSHNIGDHA
DESIGNATION: ASSISTANT PROFESSOR GRADE-II
DATE OF JOINING: 26/09/2023



NAME: DR. SURESH LAKHIMSETTY
DESIGNATION: ASSISTANT PROFESSOR GRADE-II
DATE OF JOINING: 25/09/2023



NAME: DR. AKANKSHA SHUKLA
DESIGNATION: ASSISTANT PROFESSOR GRADE-II
DATE OF JOINING: 25/09/2023



NAME: DR. J. VENKATARAMANAI AH
DESIGNATION: ASSISTANT PROFESSOR GRADE-II
DATE OF JOINING: 25/09/2023



NEWLY JOINED TEACHING ASSISTANTS

NAME: DR. SHASHANK TRIPATHI
QUALIFICATION: PHD
DATE OF JOINING: 17/07/2023



NAME: DR. TEJAS ZAVERI
QUALIFICATION: PHD
DATE OF JOINING: 17/07/2023



NAME: DR. AKSHIT SAMADHIYA
QUALIFICATION: PHD
DATE OF JOINING: 17/07/2023



NAME: DR. ANAND KUMAR
QUALIFICATION: PHD
DATE OF JOINING: 21/07/2023



NEWLY JOINED NON-TEACHING STAFF



NAME: NARENDRA KUMHAR
DESIGNATION: OFFICE ATTENDANT
DATE OF JOINING: 10/08/2023

A photograph showing a group of business professionals in a meeting. They are gathered around a table covered with various documents, including bar charts, pie charts, and line graphs. Some individuals are using laptops, and one person is pointing at a document. The scene is brightly lit, suggesting an office environment.

EXPERT TALKS BY FACULTY

- An expert talk by **Prof. Chetan Singh Solanki, IIT Bombay** on “Climate change” as a part of his solar yatra to surat on 15-09-2023 and organised by the Electrical Engineering Society.





INSTITUTE LEVEL FACULTY RESPONSIBILITY



PROF. S. N. SHARMA, DOEE, WAS APPOINTED AS THE HEAD OF THE DEPARTMENT OF PHYSICS FOR SIX MONTHS.



DR. K.V. PRAVEENKUMAR WAS APPOINTED AS WARDEN OF GAJJAR BHAVAN FOR A PERIOD OF ONE YEAR.



STUDENTS ACHIEVEMENTS

- The ideation on designing a “Two wheeled self balancing robot” in India’s biggest Robotics Competition, ROBOFEST - GUJARAT 3.0 competition submitted by **Manthan Patel, Goradara Nirmal, Gami Biren, Aryan Patel** under the mentorship of **Dr. Hiren G. Patel** has been selected from level II (Proof of concept) to level III (Prototype). The team has been recommended for a cash prize of Rs. 2, 00, 000/- .
- The research contribution of **Ambati Bhimaraju, Aeidapu Mahesh, and Sukhdev Nirbheram Joshi** entitled “Feasibility study of solar photovoltaic/grid-connected hybrid renewable energy system with pumped storage hydropower system using abandoned open cast coal mine: A case study in India” was published in PV magazine.



PH.D. AWARDEE

DS17EL007

05/08/23

MANISH YADAV

**"CONTROL OF NON-MINIMUM PHASE SYSTEMS USING INVERSE
RESPONSE COMPENSATOR"**

SUPERVISORS - DR. H.G.PATEL

DS17EL005

05/08/23

MEDEVAR PRASHANT GANESH

**"SOME CONTRIBUTIONS TO NONLINEAR SYSTEMS, STOCHASTIC
PROCESSES AND CARLEMAN LINEARIZATION: A UNIFYING
APPROACH"**

SUPERVISORS - DR. H.G.PATEL

DR. S.N.SHARMA

DS16EL003

26/09/23

RITU JAIN

**"ENERGY MANAGEMENT IN DEREGULATED POWER WITH
DISTRIBUTED GENERATION AND PUMPED STORAGE PLANT"**

SUPERVISORS - DR. VASUNDRA MAHAJAN



TEAM



GANGIREDDY SUSHNIGDHA
ASSISTANT PROFESSOR
DOEE, SVNIT SURAT



J.VENKATARAMANAIAH
ASSISTANT PROFESSOR
DOEE, SVNIT SURAT



SURESH LAKHIMSETTY
ASSISTANT PROFESSOR
DOEE, SVNIT SURAT



VISHANT BAYANI
LAB ASSISTANT
DOEE SVNIT SURAT



MAYANK BHAGAT
SENIOR TECHNICIAN
DOEE SVNIT SURAT