

NEWSLETTER

Issue 3 | January - March, 2020.

Issue 4 | April-June, 2020.

Department of Electrical Engineering
SVNIT, Surat.

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Dear Readers,

I am happy to present the 3rd and 4th issues of the Department quarterly newsletter to you. The earlier issue was the first quarterly newsletter and the credit goes to Prof. S. N. Sharma and his team members Dr. Rakesh Maurya and Dr. Sabharaj Arya for its initiation. The major parts of this collection include notable achievements by students and faculty members, short term training programmes organised, ongoing research projects, research publications and upcoming events. I acknowledge the efforts of the committee members Dr. J. Venkataramanaiah, Dr. G. Sushnigdha and Dr. Suresh Lakhimsetty in editing these issues. I also thank the research scholars Ms. Jahera Shaik and Mr. Deepkumar Patel for assisting the committee members.



Dr. R. Chudamani,
Head of the Department

Achievements by Students

Mohamad Shadab (U16EE045) received gold medal for becoming the topper of his batch.

Achievements by Faculty members

Dr. Sabha Raj Arya, Associate Professor, has been selected as a Guest Editor for Special Issue on Control and Power Quality in Renewable Energy Systems in International Transactions on Electrical Energy Systems, Wiley (Impact factor:1.692) from April 2020 to Dec 2020.

Alumni Activity

Dhruv Vadagama (U15EE018) scored All India Rank (AIR) 31 in the GATE – 2020 Examination. Presently he is working in ONGC, Hazira, Surat.

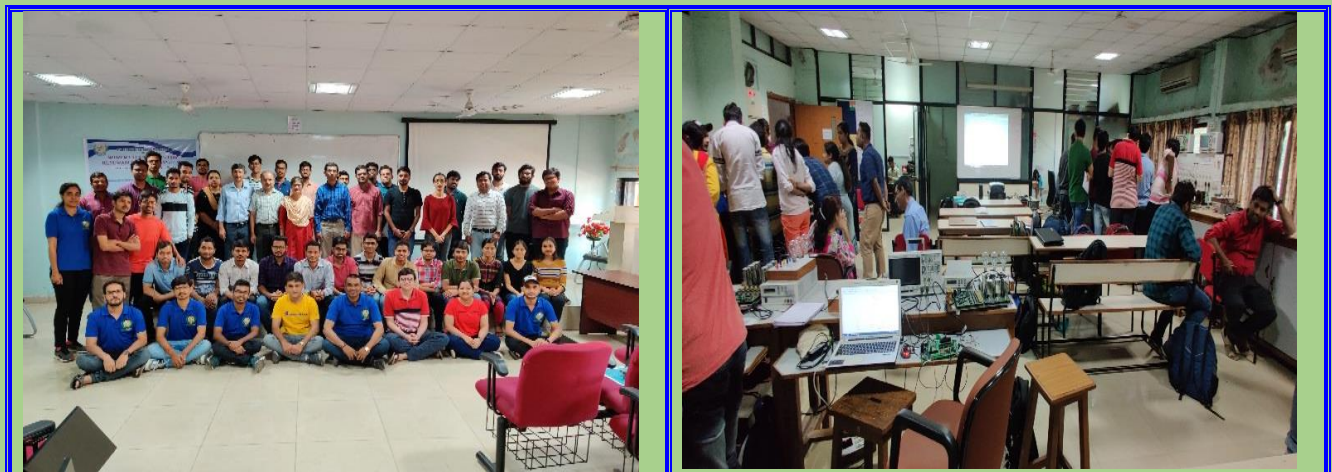
Short Term Training Programmes Organised

1. Title: Power Electronics for Renewable Energy Systems (Finishing School)

Organized by: Dr. M. A. Mulla, Dr. R. Chudamani and Dr. H. R. Jariwala

Sponsored by: TEQIP III

Duration :15-16 & 21-23 February, 2020



2. Title: *Power Electronics for Renewable Energy Systems*

Organized by: *Dr. M. A. Mulla, Dr. A. K. Panchal and Dr. H. R. Jariwala*

Sponsored by: *TEQIP III*

Duration: *02-06 March, 2020*

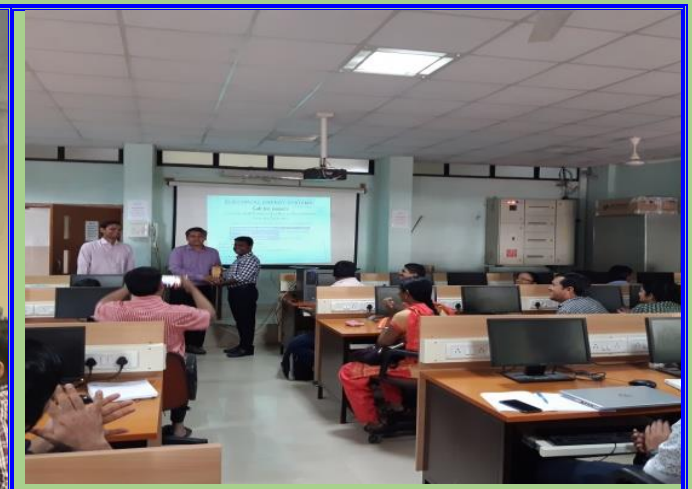


3. Title: *Power Electronics for Distributed Generation and Electrical Drives*

Organized by: *Dr. Sabha Raj Arya, Dr. Rakesh Maurya, Dr. Shailendra Kumar, Dr. Rajasekharareddy Chilipi, Dr. H.G. Patel and Prof. S.N. Sharma*

Sponsored by: *TEQIP III*

Duration: *02-06 March, 2020*



International Conferences

Title: International Conference on Gender Equity: Challenges and Opportunities (ICOGECAO2019)

Organized by: Dr. Vasundhara Mahajan, Dr. Anandita Chowdhury, Dr. Urvashi Kaushal and Dr. N. D. Jariwala

Sponsored by: TEQIP III

Duration: 19-20 December, 2019



Sanctioned Research Projects

Title: Development of enhanced Predictive Current Control and Predictive Torque Control strategies for Open-end Winding Permanent Magnet Synchronous Motor drive with less torque ripple for Electric Vehicles

Principal Investigator: Dr. K. V. Praveen Kumar

Funding Agency: Science & Engineering Research Board, New Delhi

Fund Granted: Rs. 28,96,910/-

Sanctioned Projects Under Collaborative Research

1. Title: A modified converter topology for vehicle to grid power conversion in EVs to improve grid stability

Principal Investigator: Murali Manohar S.R.

Co-Principal Investigator: Dr. M. A. Mulla

Funding Agency: NPIU - TEQIP Collaborative Research Scheme at GEC, Ujjain

Fund Granted: Rs.16,90,000/-

2. Title: Design and Development of PV-STATCOM for solar power integration to Electric grid

Principal Investigator: Aanshul Awasthi

Co-Principal Investigator: Dr. M. A. Mulla

Funding Agency: NPIU - TEQIP Collaborative Research Scheme at GEC, Ujjain

Fund Granted: Rs. 18,70,000 /-

3. Title: Control of wind solar micro-grid power generation isolated system

Co- Principal Investigator: Dr. Sabha Raj Arya Collaboration with Government Engineering College, Bharuch- Gujarat and Department of Energy Technology, Aalborg University, Denmark

Funding Agency: Research Promotion under Technical Education-STEM Gandhinagar (Gujarat)

Fund Granted: Rs. 25,00,000/-

Seed Money Projects funded by SVNIT (Max: 10,00,000/-)

1. Title: *Development of optimal switching angle methods for asymmetric cascade H bridge multilevel inverter*

Principal Investigator: *Dr. Aeidapu Mahesh*

2. Title: *Research on power electronics and control: Grid-Interface for renewables, storage and green micro-grids*

Principal Investigator: *Dr. Rajasekharareddy Chilipi*

3. Title: *Optimization based algorithms for state and parameter estimation, and their performance evaluation*

Principal Investigator: *Dr. Rahul Radhakrishnan*

4. Title: *Development of a versatile battery charger for electric vehicles with reduced sensor count*

Principal Investigator: *Dr. Sanjay Tolani*

5. Title: *Simplified predictive torque control strategies for an induction motor drive*

Principal Investigator: *Dr. K. V. Praveen Kumar*

6. Title: *Trajectory optimization of re-entry vehicles using combined metaheuristic and collocation-based methods*

Principal Investigator: *Dr. G. Sushnigdha*

7. Title: *A Novel Hybrid Cascade Multilevel Inverter with Single DC Source by Employing Toroidal Transformer*

Principal Investigator: *Dr. J. Venkataramanaiah*

Ph.D. Degree Awardees

1. Name of the student: Kashyap Lilabhai Mokariya

Title: Penetration of Electrical Vehicles on Indian Power Grid: Feasibility Analysis, Challenges and Solutions

Date: 12-03-2020

Supervisor: Prof. Varsha A. Shah

2. Name of the student: Ashutosh Keshav Giri

Title: Control algorithms for Power Quality Improvement in Wind Based Distributed Power Generation System

Date: 18-06-2020

Supervisor(s): Dr. Sabha Raj Arya and Dr. Rakesh Maurya

Patent

Dr. M. A. Mulla and Rajan V. Vamja

Title: Multipurpose Battery-Assisted Solar-Powered Water Pumping System

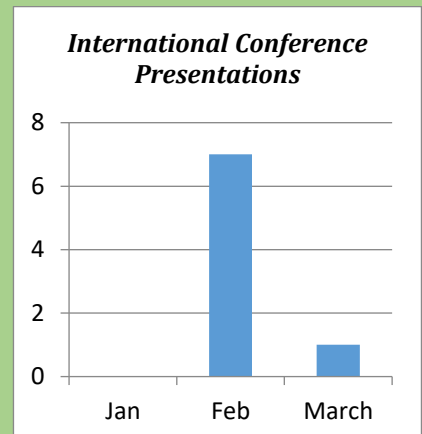
Application date:28/05/2020

Publication Date:12/06/2020

Application No. 202021022353

STATUS: Application referred for examination

Research Publications:



Upcoming Events

Short Term Training Programs

1. Title: *Control of Power Electronic converters for on-Grid and of-Grid systems (Virtual mode)*

Organized by: *Dr. A. Mahesh, Dr. S. R. Arya, Dr. G. Sushnigdha, Dr. K. V. Praveen Kumar and Dr. J. Venkataramanaiah*

Sponsored by: *TEQIP III*

Duration: *03-07 August, 2020*

2. Title: *Application & Control of Power Electronic Converters for Sustainable Living (in virtual mode)*

Organized by: *Dr. Sanjay Tolani, Dr. Rajasekharareddy Chillipi, Dr. Sabha Raj Arya and Dr. Rakesh Maurya*

Sponsored by: *TEQIP III*

Duration: *18-22 September, 2020*

2. Title: *One Week Short Term Course on Advances in Control Systems Engineering and Applications (in virtual mode)*

Organized by: *Dr. R. Radhakrishnan, Dr. G. Sushnigdha, Dr. H. G. Patel, Prof. S. N. Sharma*

Sponsored by: *TEQIP III*

Duration: *23-27 September, 2020*

3. Title: *Power Electronics for Electric Vehicles and Energy systems (PEEVES 2020)*

Organized by: *Dr. S. R. Arya, Dr. Aeidapu Mahesh and Dr. Sanjay Tolani (SVNIT) Dr. Awadhesh Kumar, Dr. Navdeep Singh and Dr. Shekhar Yadav from MMMUT*

Sponsored by: *TEQIP - III*

Duration: *28th September – 3rd October, 2020*



*“Coming together is a beginning, keeping together is progress, working together is
SUCCESS” – Henry Ford*