**DR. CHANDANI PANKAJKUMAR GOR**
Assistant Professor,
Department of Electrical Engineering
Sardar Vallabhbhai National Institute of Technology,
Ichchhanath, Surat – 395007 (Gujarat), INDIA.
Tel. +91 261 2201589 (Office), +91 9974005107
E-mail: cpg@eed.svnit.ac.in

1. **Date of Joining** : 17-08-2007
2. **Area of Research** :

   Multiphase Machines and Drives and their applications to Electric Vehicles,

   Space Vector based Switching Control Techniques for Multiphase Inverters,

   Fault Tolerance and Detection,

   Artificial Intelligent Control Techniques,

   Power Converters for Electric Vehicles

3. **Academic Qualifications**:

| Degree | Year | Specialization/Area of Research | Name of Institute |
|---|---|---|---|
| Ph. D. | 2022 | Fault tolerant Multiphase Induction Motor Drives for Electric Vehicle | SVNIT, Surat |
| M.E./M. Tech. | 2006 | Microprocessor System Applications | M. S. U. , Baroda |
| B. E./B. Tech. | 2003 | Electrical Engineering | SVNIT, Surat |
| H. S. C. | 1999 | -- | GSEB |
| S. S. C. | 1997 | -- | GSEB |

4. **Teaching and Research Experience:**

| Institute | Post held | Period |
|---|---|---|
| Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat | Assistant Professor | July 2009 to Till date |
| Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat | Lecturer | August 2007 to July 2009 |
| Sarvajanik college of Engineering, Surat | Lecturer | July 2006 to August 2007 |

5. **PG Dissertations Guided** : 15 (Degree awarded) + 1 M. Tech. (On going)

| Sr. No. | Name of the Candidate | Title of Thesis | Year | Status |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1 | Jay Parmar (P21EL021) | Study of Multilevel Inverter fed Direct Torque Control of Five Phase Induction Motor Drive | July-2023 | Submitted |
| 2 | Shrirao Nikhilesh (P21EL017) | Study of Field Weakening Control Techniques for Five Phase Induction Motor Drive | Julu-2023 | Submitted |
| 3 | Vivek Patel (P20EL013) | Study of various current control techniques for five phase induction motor | July-2022 | Submitted |
| 4 | P Srikanth (P20EL011) | Sensorless speed control strategies of five phase induction motor | July-2022 | Submitted |
| 5 | Totan Das (P19EL020) | Analysis and Control of open winding induction motor drive with hybrid energy storage for electric vehicle | July-2021 | Submitted |
| 6 | Bhavarth Subhedar (P19PS004) | Fault tolerance and scalar control of Five phase induction motor | July-2021 | Submitted |
| 7 | Keval Chauhan (P18EL010) | Simulation and Hardware Implementation of LLC Resonant Converter for On Board Charger | July-2020 | Submitted |
| 8 | Prakash kumar Ladumar (P18EL011) | Constant Voltage with constant temperature charging strategy for Li-ion battery | July-2020 | Submitted |
| 9 | Ankit Kumar (P15PS011) | Implementation of DTC-SVM based regenerative braking of VSI fed induction motor | July-2017 | Submitted |
| 10 | Vineet Verma (P15PS013) | Automatic generation control of multi-source power generation under deregulated environment | July-2017 | Submitted |
| 11 | Babaria Shantilal J. (P14PS022) | Direct torque control of space vector modulated inverter fed three phase induction motor for EV | July-2016 | Submitted |
| 12 | Swadheen Sharma (P13PS021) | Voltage profile improvement of radial distribution system using d-statcom | July-2015 | Submitted |
| 13 | Vijay Kumar Sonakar (P13PS003) | Battery charger for electric vehicles and its interfacing with utility grid | July-2015 | Submitted |
| 14 | Memon Mahmadimram (P08EL860) | Design and development of Power supply for table top tokamak | July-2010 | Submitted |
| 15 | Lakshmaiah K. | Closed loop speed control of brushless dc motor using hall sensors | July-2008 | Submitted |

6. **Ph.D. Supervisor : -**

7. **Publications :**

**International journals: -04**

1. Gor, Chandani P., Varsha A. Shah, and Bharadwaj Rangachar. "Fuzzy logic based dynamic performance enhancement of five phase induction motor under arbitrary open phase fault for electric vehicle." International Journal of Emerging Electric Power Systems 22, no. 4 (2021): 473-492.

2. Gor, Chandani, and Varsha Shah. "Dynamic Performance Enhancement and Comparative Analysis of Fault Tolerant Five Phase Induction Motor using PSO and GWO Algorithms." International Journal of Engineering Research and Technology, Volume 13, Issue 9, Pages 2318 – 2331 2020.

3. Gor, Chandani, and Varsha Shah. "Fault Tolerant Speed Control of Five Phase Induction Motor with Fuzzy Logic Controller for Electric Vehicle." *Journal of Advanced Research in Dynamical and Control Systems* 12.3 Special Issue (2020): 900–914. *Journal of Advanced Research in Dynamical and Control Systems*.

4. Gor, Chandani and Varsha Shah, "Real-Time Performance Analysis and Control of Five Phase Induction motor for Electric Vehicle." Solid State Technology 63, no. 4 (2020): 2603-2618.

**International Conference: 06**

1. Gor, Chandani P., and Varsha A. Shah. "Drive Cycle based Analysis and Control of Five Phase Induction Motor Drive for Electric Vehicle." In 2023 IEEE IAS Global Conference on Emerging Technologies (GlobConET), pp. 1-6. IEEE, 2023.

2. C. Gor and V. Shah, "Modelling, Analysis and Control of Five Phase Induction Motor Drive under Open Circuit Fault for Electric Vehicle," 2019 IEEE 1st International Conference on Energy, Systems and Information Processing (ICESIP), Chennai, India, 2019, pp. 1-6. https://doi.org/10.1109/ICESIP46348.2019.8938312

3. C. Gor, P. Gupta, V. Shah and M. Lokhande, "Real time simulation of multiphase induction motor for electric vehicle using RT-Lab," IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society, Beijing, 2017, pp. 6646-6651. https://doi.org/10.1109/IECON.2017.8217160

4. C. P. Gor, V. A. Shah and M. P. Gor, "Electric vehicle drive selection related issues," 2016 International Conference on Signal Processing, Communication, Power and Embedded System (SCOPES), Paralakhemundi, 2016, pp. 74-79. https://doi.org/10.1109/SCOPES.2016.7955554

5. Gor Chandani, Varsha shah and Makarand Lokhande, "Comparison of 3-phase and 5-phase Induction motor performance for electric vehicle motor performance" Electric Vehicle symposium and Exhibition, Montreal, Quebec, Canada, June 2016.

6. Shah, Parthkumar M., Makarand M. Lokhande, Varsha A. Shah, and Chandani P. Gor. "Hardware implementation of single-phase Shunt Active Power Filter with hysteresis current control loop for rectifier type load." In 2014 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), pp. 1-6. IEEE, 2014.

**National Conference: NIL**

8. **Conference/Seminars Attended : 05**

9. **Training Programs/Seminars Organized : 06**

| Sr. No. | Title of the Event | Period | Venue | Sponsored by | Role (Coordinator/Chairman/Org. Secretary) |
|---|---|---|---|---|---|
| 1) | One week STC on" EV Charging Technology and Infrastructure Development (EVCTID-2023)" | 29th March to 3rd April, 2023 | DoEE, SVNIT (Online Mode) | Self-Sponsored | Coordinator |
| 2) | One week STC on "Advancement in Electric vehicle Technology: A step towards Development of sustainable Transportation System" | 18th to 22nd February, 2021 | EED, SVNIT (Online Mode) | TEQIP-III | Coordinator |
| 3) | One week finishing school on "Design and Control of Power Electronic Circuits using OPAL-Real Time Simulators" | March 17th - 23rd, 2017 | EED, SVNIT | TEQIP-II | Coordinator |
| 4) | One week STC on "Power Quality and Distributed Power Generation" | 20th -24th December, 2017 | EED, SVNIT | Self-Sponsored | Co-coordinator |
| 5) | One week STTP on "Electric Vehicle" | 26th to 30th May, 2014. | EED, SVNIT | TEQIP-II/ANSYS/DESIGNTECH | Coordinator |
| 6) | One week STTP on "Microcontrollers and their applications" | 14th -18th Dec. 2009 | EED, SVNIT | AICTE | Coordinator |

10. **Expert Lectures Delivered :**

| Sr. No. | Title of the Talk | Name of the Program in which the Talk is Delivered | Date of Talk | Organizer and Venue |
|---|---|---|---|---|
| 1) | Recent advancements in Charging infrastructure of electric vehicle | One-day Seminar on 'Recent advancements in charging infrastructure of electric vehicle' | 13th April 2023 | EED, Faculty of Engi. and Tech, Parul University, Vadodara |
| 2) | Fault Tolerant Multiphase Induction Motor Drives for Reliable Operation of EV | One-day Seminar on 'Recent advancements in charging | 13th April 2023 | EED, Faculty of Engi. and Tech, |

| | | | | |
|---|---|---|---|---|
| | | infrastructure of electric vehicle' | | Parul University, Vadodara |
| 3) | Recent Trends in Charging Infrastructure Development Technology and Research Opportunities | EV Charging Technology and Infrastructure Development (EVCTID-2023) | 30th March 2023 | EED, SVNIT |
| 4) | Introduction to Multiphase Systems:<br>Fuzzy based Speed Control of Five Phase Induction Motor | Advancement in Electric vehicle Technology: A step towards Development of sustainable Transportation System | 23rd Feb 2021 | EED, SVNIT |
| 5) | "Fuzzy based speed control of Multiphase Induction Motor" | Electric Vehicle Application, Control and Smart Charging using Artificial Intelligence " Series 2: Artificial Intelligent Controller for Smart Charging of Electric vehicle and other Applications | 29th Jan 2021 | Department of Electrical Engg. PES's Modern College of Engg. Pune |
| 6) | Introduction to Multiphase System | "Power Electronics for Renewable Energy Systems" | 21 Feb 2020<br>&<br>6th March 2020 | EED, SVNIT |

11. **Administrative and Other responsibilities:**
    - Member, PI-Unnat Bharat Abhiyan committee
    - Member, Internal complain committee
    - Member, Departmental convocation registration committee
    - Member, Physical Stock Verification Committee
    - Member, Anti-ragging committee for first year students

12. **Significant Outreach Activities**
    - Reviewer for NPSC - 2022
    - Session coordinator in the 'International Conference on Sustainable Development Goals and Gender Perspective' organized by the DoEE, SVNIT on 25th and 26th Oct, 2021.
    - Session coordinator and reviewer in 'International Conference on Sustainable Technology and Advanced Computing in Electrical Engineering' organized by the DoEE, SVNIT on 11th and 12th Nov, 2021.
    - Reviewer for IEEE STPEC 2021

13. **Departmental Responsibilities**:

- Member Secretary of DAAC (EED) from Jan’19 to till date
- Faculty advisor of B. Tech IV from March ’20 to till date
- Co-Chairman of Departmental Library committee
- Lab-In-charge, Microprocessor Lab
- Lab-In-charge, Electric Vehicle Lab
- Lab-In-charge, DSP Lab
- Lab-In-charge, UG Project Lab

14. **Subjects Taught at M.Tech and B.Tech level**

- Digital Signal Processing
- Industrial Drives and Control
- Introduction to 32-bit Digital Signal Controllers
- Microprocessors and Microcontrollers
- Power Electronic Converters
- Microcontroller and Embedded ‘C’ programming
- Electrical Network Analysis
- Electrotechniques
- Computer Applications to Electrical Engineering (Numerical Methods)