1. **Name** : Varsha Ajit Shah
2. **Designation** : Professor
3. **Contact** : Department of Electrical Engineering,
Sardar Vallabhbhai National Institute of Technology,
Ichchhanath, Surat – 395007 (Gujarat), INDIA.
Tel. +91 261 2201565, +91 7600057526 , +91 9426746336
E-mail: vas@eed.svnit.ac.in
Institute webpage: http://svnit.ac.in/deptt/eled/index.php
4. **Date of Joining** : 23-11-1987
5. **Research Areas** : Hybrid and Electric Vehicles, Energy sources and their Management, Electric Drives and Power Convert for EV, Battery charger for EV, Power system,
6. **Academic Qualifications** :
   - Ph.D. 2013, SVNIT, Surat.
   - M.Tech. (Power system) 1990, SVRCET, Surat.
   - B.E. (Electrical) 1986, M.S.U, Baroda.
7. **Industrial Experience** : Graduate Engineer Trainee at Surat Electricity Company from 01-02-1986 to 31-10-1987.
8. **Teaching and Research Experience :**
   - Professor in Electrical Engineering Department, SVNIT, January, 2019 till date.
   - Associate Professor in Electrical Engineering Department, SVNIT, July 2006 to January 2019.
   - Assistant Professor in Electrical Engineering Department, SVNIT, July 1994 to July 2006.
   - Lecturer in Electrical Engineering Department, SVNIT, November 1987 to July 1994.
9. **PG / Ph.D. Student's Supervision :**
   - **3 Ph.D. (degree awarded) and 6 Ph.D. (ongoing)**
   - Pritam K Gujarathi "***Investigations on Conversion of conventional Vehicle into Plug-in Hybrid Electric Vehicle and Its Energy Management Strategy for Performance Improvement and Emission Reduction***" February 2019 (Awarded) as main Supervisor .

- Nikunj Patel "***Design, Development and Testing of C-Core RadialFlux Switched Reluctance Motor with RemovableRotor Wheel for In-Wheel Electric Vehicle Application***" October 2019(Awarded) as main Supervisor.
- Kashyap L Mokariya "***Penetration of Electrical Vehicles on Indian Power Grid: Feasibility Analysis, Challenges and Solutions***" February 2019 *(*Awarded) as sole Supervisor.
- Jiten K Chavda on "***Design of Hybrid Energy Storage System***" *(sole Supervisor)* (Thesis pre-synopsis scheduled during July 2020).
- Chandni P Gor on "***Five Phase Inductor Motor for EV Applications***" *(sole Supervisor, Pursuing).*
- Shimin VV on "***Hybrid Energy Storage System for EV Applications***" *(sole Supervisor, Pursuing).*
- Athul Vijay PK on "***Regenerative Braking of Induction Motor for EV Applications***" *(sole Supervisor, Pursuing).*
- Ujjval B Vyas on "***Fast Charging Stations for EV***" *(sole Supervisor, Pursuing).*
- Payal K Joshi on "***SRM Motors for EV Applications***" *(sole Supervisor, Pursuing).*
- **M.Tech Dissertations Guided : 21 completed + 01 going on**

10. **Past Student Achievement :**
    - **Best Paper Award** for Pritam Keshavdas Gujarathi, Varsha A. Shah and Makarand M. Lokhande, "*Retrofitted Conversion of Conventional Vehicle into Plug-In Hybrid Electric Vehicle: Guideline with Practical Oriented Approach*", International Technology Congress Organized by Technology Research Centre, Pune, Maharashtra, India, 28th to 29th December 2017.
    - **Best Paper Award** for Kashyap L Mokariya and Dr Varsha A Shah "*Online tuning of charging-discharging of EV batteries by using adaptive gentic algorithm*" at the Future trends in Engineering and business IOSRD International conference Chennai dated 26th May 2018.
    - Kashyap L Mokariya received the **Best researcher award** at 87th International Research Awards in Engineering, Science and management on dated 29th September 2018, Chennai, India for the best contributions in the field of Engineering and Research.
    - Kashyap L Mokariya received the **Pedagogical Innovation award** from honorable Vice chancellor Gujarat Technological University on 14th February 2019 for Energy

conservation and design and development of energy efficient devices and OFF grid Solar PV plants for electric vehicle charging at Surat district of Gujarat.

11. **Courses Taught:**
    - UG: Basic Electrical Engineering, Electrotechniques, Electrical Circuits, Network and Systems, Electrical Power Systems, 8086 16-bit microprocessor, Microcontroller and Microprocessor, Microcontroller and Embedded Systems, Advance Control Systems, Utilization of electric energy and electrical drives, Electrical machines I and II, FACT devices.
    - PG: Microcontroller Based System Design, Power System Transients, Power system Protection.
12. **Projects:**
    - Surat Municipal Corporation Bus Electrification Assessment in coordination with National Renewable Energy Laboratory, Dept. of Energy ,United States of America. https://www.nrel.gov/docs/fy19osti/73600.pdf

13. **Patents:**

Author (s)	Name of Patent	Patent App No	Status
KashyapL.Mokariya Varsha A Shah	Advanced and Economic battery charger for Electric Vehicle with APFC (Applied)	TEMP/E-1/48775/2019-MUM	Examination
KashyapL.Mokariya Varsha A Shah	Advanced Protection of Motor with APFC	TEMP/E-1/48868/2019-MUM	Provisional

14. **Publications and Presentations**

International journals: 21

1. Chandani Gor and Varsha A. 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*, Vol.12, No.03, pp.900-914, 2020. doi: 10.5373/JARDCS/V12SP3/20201333.
2. VV Shimin and Varsha A Shah, "Vector Control Based Regenerative Braking For Induction Motor Driven Battery Electric Vehicles", *International Journal of Power and Energy Systems, Actapress*, vol. 40, no. 2, pp.203-122, 2020.

3. P. K. A. Vijay, V. A. Shah, and V. V. Shimin, “Energy Based Equivalent Circuit Modelling of Ultracapacitor Considering Variation of ESR with OCV,” *Int. J. Power Energy System, Actapress*, vol. 40, no. 2, Feb. 2020 DOI: 10.2316/J.2020.203-0139.
4. N. R. Patel, V. A. Shah and M. M. Lokhande, "A Novel Approach to the Design and Development of 12/15 Radial Field C-Core Switched Reluctance Motor for Implementation in Electric Vehicle Application," *IEEE Transactions on Vehicular Technology*, vol. 67, no. 9, pp. 8031-8040, Sept. 2018. **doi:** 10.1109/TVT.2018.2839695.
5. N. Patel, V. Shah, and M. Lokhande, “Comparative Analysis of 12/16 Conventional and Proposed C-core Radial Flux SRM Topologies for In-wheel Electric Vehicle Application”, *Majlesi Journal of Electrical Engineering*, vol. 13, no. 2, pp. 57-65, Jun. 2019.
6. Jiten k. Chavda, Varsha A Shah, “Energy Management of an Electric Vehicle by Hybrid Energy Storage System with Novel Control Strategy,” *Journal of Advanced Research in Dynamical and Control Systems*, Vol. 11, No.04, pp. 1923-1943, April 2019.
7. Jiten k. Chavda, Varsha A Shah, “Combined Sizing and Energy Management of HESS for an Electric Vehicle by PSO with Novel Power Sharing Control Strategy” *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* Vol. 8, No. 6 , pp. 676-681, April 2019.
8. P. Gujarathi, V. Shah, and M. Lokahnde, “MATLAB-Simulink Based Tool Development for Early Stage Design of Electric Powertrain during Conversion of Conventional Vehicle into Plug-In Hybrid Electric Vehicle”, Majlesi Journal of Electrical Engineering, vol. 13, no. 1, pp. 31-36, May 2018.
9. P. K. Gujarathi, V. A. Shah, and M. M. Lokhande, “Cost Analysis for Conversion of Conventional Vehicle into Plug-In Hybrid Electric Vehicle,” *J. Green Eng.*, Vol. 8, No. 4, pp. 497–518, Oct. 2018. https://doi.org/10.13052/jge1904-4720.843.
10. Kashyap Mokariya, Varsha Shah, N P Patidar," Charging of Electric Vehicles in Indian Power Grid Analysis, Challenges, and Solutions”, *International Journal of Engineering Research and Technology*. Vol. 11, No. 2, pp. 219-241, 2018.
11. Kashyap Mokariya, Varsha Shah," Online tuning of charging-discharging of EV batteries by using adaptive Genetic algorithm”, *Journal of Advanced Research in dynamical and control system*. Vol. 2, special issue, pp. 2473 – 2488, 2018.

12. P. K. Gujarathi, V. A. Shah, and M. M. Lokhande, “Grey wolf algorithm for multidimensional engine optimization of converted plug-in hybrid electric vehicle,” *Transportation Research Part D Transport and Environment,* Elsevier, vol. 63, pp. 632–648, Aug. 2018. https://doi.org/10.1016/j.trd.2018.06.003.
13. P. K. Gujarathi, V. A. Shah, and M. M. Lokhande, “Emission reduction by combined rule based-artificial bee colony optimization algorithm for converted plug-in hybrid electric vehicle*,” J. Intell. Fuzzy Syst*., vol. 35, no. 2, pp. 1743–1753, Jan. 2018. DOI: 10.3233/JIFS-169710.
14. P. K. Gujarathi, V. A. Shah, and M. M. Lokhande, “Electric Vehicles in India: Market Analysis with Consumer Perspective, Policies and Issues,” *J. Green Eng.*, Vol. 8, No. 1, pp. 17–36, Jan. 2018.
15. S. V. Rajani, V. J. Pandya, and V. A. Shah, “Experimental validation of the ultracapacitor parameters using the method of averaging for photovoltaic applications,” J. Energy Storage, vol. 5, pp. 120–126, Feb. 2016.
16. Nikunj R Patel, Varsha A Shah, Makarand M Lokhande, “A Mathematical and FEM design of Novel Axial Field Switched Reluctance Motor for Electrical Vehicle (EV)Application” *World Electric. Vehicle. J.*, Vol. 8, Issue 2, pp. 473–482, 2016. https://doi.org/10.3390/wevj8020473.
17. Kashyap Mokariya, Varsha Shah, Makarand Lokhande, "Feasibility and penetration of electric vehicles in Indian power grid”, *International Journal of Electrical, Computer and Communication Engineering*, Vol 9, No 2, 2015. doi.org/10.5281/zenodo.1338090.
18. Kashyap Mokariya, Varsha Shah, Makarand Lokhande, “Impact of Penetration of Electrical Vehicles on Indian Power Grid”, *World Electric Vehicle Journal*, Vol.7 No.3, pp. 05-18, 2015.
19. V. A. Shah, P. Kundu, and R. Maheshwari, “Improved Method for Characterization of UltraCapacitor Constant Current Charging”, IJMO, pp. 290–294, 2012, doi: 10.7763/IJMO.2012.V2.129.
20. V. A. Shah, D. Mistry, P. Kundu, and R. Maheshwari, “Single Interrupt Control and Regenerative Braking of PMBLDC Motor for Electric Vehicles”, *Int. J. Vehicle Structures & Systems,* vol. 4, no. 1, Feb. 2012, *doi: 10.4273/ijvss.4.1.02.*
21. V. Shah, P. Pritesh, P. Sagar, Prasanta Kundu, and Ranjan Maheshwari, ‘Measurement of Real Time Drive Cycle for Indian Roads and Estimation of

Component Sizing for HEV using LABVIEW', *International Journal of Electrical and Computer Engineering*, vol. 5, no. 10, pp. 1112–1120, Oct. 2011.

22. H. P. Desai, R. Maheshwari, S. N. Sharma, and V. Shah, 'Maximum power extraction from photo-voltaic power generator with adaptive MPP tracker', *Appl. Sol. Energy*, vol. 46, no. 4, pp. 251–257, Dec. 2010, *doi: 10.3103/S0003701X10040031*.

National Journals: 05

1. V. V. Shimin, V. A. Shah and M. M. Lokhande, "A Review on Role of Power Electronics in Electric Vehicles: State-of-the-art and Future Trends," *Power Research*, Vol.12, No.2, 2016.
2. S. Shah, A. K. Panchal, and V. A. Shah, "Power Factor Improvement in the Steel Plant with Advanced AC Drive System", *Power Research*, vol. 8, no. 4, pp. 417–428, Dec. 2012.
3. B. K. Thummar, V. A. Shah, and A. K. Panchal, 'Performance Improvements with Advanced AC Drives in Plate Shearing Line at Steel Plant', *Power Research*, vol. 8, no. 3, pp. 207–220, Sep. 2012.
4. V. Joshi and V. A. Shah, 'IEC61850 Standard and It's Impact on Protection and Control Schemes within Power Sub-Station', *Power Research*, vol. 8, no. 4, pp. 229–240, Dec. 2012.
5. C. V. Patel and V. A. Shah, 'Suppression of High-Frequency Disturbances in Low-Voltage Circuits Caused by Vacuum Circuit Breaker Operation in Medium-Voltage Indoor Substation', *Power Research*, vol. 7, no. 1, pp. 33–44, Mar. 2011.

International Conference: 22

1. P. Bhagyasree and V. A. Shah, "A Simplified Method to Evaluate Equivalent Circuit Model and State of Charge of Li-ion Battery," 2019 *IEEE 1st International Conference on Energy, Systems and Information Processing (ICESIP)*, Chennai, India, 2019, pp. 1-6.
2. KashyapMokariya, VarshaShah,"Online tuning of charging-discharging of EV batteries by using adaptive Genetic algorithm", *IOSRD International conference* May 2018 Chennai.
3. 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.

4. 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.
5. P. K. Gujarathi, V. Shah and M. Lokhande, "A seven switch all in one power electronic topology for converted plug-in hybrid electric vehicle," *2017 IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM),* Chennai, 2017, pp. 477-483.
6. P. K. Gujarathi, V. Shah and M. Lokhande, "Performance analysis of converted parallel plug-in hybrid electric vehicle," 2017 IEEE 8th Control and System Graduate Research Colloquium (ICSGRC), Shah Alam, 2017, pp. 191-196.
7. A. Kachhwaha, V. A. Shah and V. V. Shimin, "Integration methodology of ultracapacitor-battery based hybrid energy storage system for electrical vehicle power management," 2016 IEEE 7th Power India International Conference (PIICON), Bikaner, 2016, pp. 1-6.
8. V. V. Shimin, V. A. Shah and M. M. Lokhande, "Electric vehicle batteries: A selection based on PROMETHEE method," *2016 IEEE 7th Power India International Conference (PIICON)*, Bikaner, 2016, pp. 1-6.
9. 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.
10. Shimin V V, V. A. Shah and M. M. Lokhande, "Material selection for semiconductor switching devices in electric vehicles using Analytic Hierarchy Process (AHP) method," *2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)*, Delhi, 2016, pp. 1-6.
11. Shimin. V V, V. A. Shah and M. M. Lokhande, "Advanced Material Selection for Semiconductor Switching Devices in Electric Vehicles Using PROMETHEE Method," *2016 IEEE Vehicle Power and Propulsion Conference (VPPC)*, Hangzhou, 2016, pp. 1-6.
12. N. R. Patel, V. A. Shah and M. M. Lokhande, "Design and performance analysis of radial flux C-core switched reluctance motor for in-wheel electrical vehicle application," *2016 IEEE Transportation Electrification Conference and Expo (ITEC)*, Dearborn, MI, 2016, pp. 1-6.

13. P. M. Shah, M. M. Lokhande, V. A. Shah and C. P. Gor, "Hardware implementation of single-phase Shunt Active Power Filter with hysteresis current control loop for rectifier type load," *2014 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, Mumbai, 2014, pp. 1-6.
14. V. A. Shah, K. S. Sachdev, P. Kundu and R. Maheshwari, "Design and control of hybrid power supply for HEV," *2013 World Electric Vehicle Symposium and Exhibition (EVS27)*, Barcelona, 2013, pp. 1-9.
15. V. Shah, R. Chaudhari, P. Kundu and R. Maheshwari, "Performance analysis of hybrid energy storage system using hybrid control algorithm with BLDC motor driving a vehicle," *2010 Joint International Conference on Power Electronics, Drives and Energy Systems & 2010 Power India*, New Delhi, 2010, pp. 1-5.
16. H. P. Desai, R. Maheswari, S. N. Sharma and V. Shah, "Extracting maximum power from photo-voltaic power generator with unlike PWM pulses," *2009 International Conference on Industrial and Information Systems (ICIIS)*, Sri Lanka, 2009, pp. 436-441.
17. V. A. Shah, S. G. Karndhar, R. Maheshwari, P. Kundu and H. Desai, "An energy management system for a battery ultracapacitor Hybrid Electric Vehicle," *2009 International Conference on Industrial and Information Systems (ICIIS)*, Sri Lanka, 2009, pp. 408-413.
18. K. L. Mokariya, V. Shah, and M. Lokhande, 'Bidirectional hybrid controller for V2G/G2V operation on distribution grid', in *2015 IEEE International Transportation Electrification Conference (ITEC)*, Chennai, India, Aug. 2015, pp. 1–9, doi: 10.1109/ITEC-India.2015.7386944.
19. M. Pathak, V. A. Shah, and D. Kalola, 'A Review: Diagnosis and Classification of Faults in Electric Vehicle for Energy Storage and Electric Motor System', in *Second International Conference on Large Scale Integration of Renewable Energy in India*, New Delhi, India, Sep. 2019.
20. Shimin, V. V., Varsha Shah, and Makrand Lokhande. The State of the Art of Role of Power Electronics in Electric Vehicles. No. 2015-28-0009. *SAE Technical Paper*, 2015.
21. Chavda, Jiten, et al. Laboratory Hardware Implementation of BLDC Controller for Electric Vehicles. No. 2015-28-0017. *SAE Technical Paper*, 2015.
22. Chavda, Jiten Kishorbhai, and Varsha Shah. Accurate battery model with temperature variation for EVs, HEVs and PHEVs. No. 2015-28-0037. *SAE Technical Paper*, 2015.

National Conference: 06

1. Jiten Chavda, Varsha Shah and Santosh Makwana "*Accurate battery model with temperature variation for EVs, HEVs & PHEVs*" National Conference on Emerging Research Trends in Engineering, SPFU Gujarat & Vishwakarma Govt. Engineering College, Ahmadabad, April 2016.
2. Santosh Makwana, Rakesh Shankar, Jiten Chavda and Varsha Shah "*Laboratory hardware implementation of BLDC controller for EV's*" National Conference on Emerging Research Trends in Engineering, SPFU Gujarat & Vishwakarma Govt. Engineering College, Ahmadabad, April 2016 .
3. V. A. Shah, Jivanadhar A Joshi, R. Maheshwari, and R. Roy, '*Review of Ultracapacitor Technology and its Applications*', in Fifteenth National Power Systems Conference (NPSC), IIT Bombay, Dec. 2008.
4. Sneha Bhavsar, Prof. Varsha A Shah , Mr. Vinod Gupta , "*Voltage Dips and Short Interruption Immunity Test Generator As per IEC 61000 – 4 – 11*" in Fifteenth National Power Systems Conference (NPSC), IIT Bombay, Dec. 2008.
5. Hardic desai, Varsha shah "*Online measurement and correction of Power Factor for non linear load to improve power quality on utility side*" National conference on recent trends and emerging technologies in electrical and electronics engineering, SPARKS '2005 at Park college of engineering and technology Coimbatore.
6. Varsha Shah, H.K.Patel "*Switching circuit for study transformer inrush*", All India seminar on Digital protection of power apparatus and systems, IIT, Kanpur, March 1994.

Book Chapter:02

1. Pritam Keshavdas Gujarathi, Varsha A. Shah and Makarand M. Lokhande, 2018, Towards Sustainable Transportation: Global Scenario and India as Developing Country. Book Chapter 12. *Advances in Renewable Energy and Sustainable Systems*, Nova Science Publishers, USA.
2. Shimin V V., Shah, V.A., Nidheesh B. R., and Lokhande, M., 2018, Performance Enhancement of E-Rickshaws in India Based on Battery-Ultracapacitor Hybrid Energy Source. Book Chapter 13. *Advances in Renewable Energy and Sustainable Systems*, Nova Science Publishers, USA.

15. **Summer /Winter School Organized at SVNIT**

- Two week TEQIP (III) Sponsored Short terms course on "Power Electronics for Distribution System and Electric Drives", during June 25th – July 4th, 2018.

- One week Self Sponsored short terms course on “Power Quality and Distributed Power Generation”, during Dec 20-24, 2017.
- One week TEQIP Sponsored finishing school on “Design and Control of Power Electronics Circuits using OPAL-Real Time Simulators”, during March 17-23, 2017.
- One week TEQIP-II/ANSYS/DESIGNTECH Sponsored Short terms course on “Electric Vehicle”, during 26th to 30th May, 2014.
- Short term training program on Micro Controllers and their Applications (14-18 December 2009).
- Short term training program on Advanced Electrical Power Systems (26-30 January 2009).

16. **Expert Lectures Delivered**

- **Innovation in electrical vehicles and machine dynamics** on 15th October 2019 on the occasion of birth anniversary of former President of India, Dr. A. P. J. Abdul Kalamalso celebrated as Innovation day at Government Engineering College Valsad.
- **Electric vehicles and battery charging at** Dr S & S S Gandhi Government Engineering College. Surat on September 20th 2019.
- **Hybrid electric vehicles** at Global Satellite Event of the 2019 Global Challenges Summit (GGCS) being organized from 16th to 18th September 2019 funded through the Global Challenges Research Fund (GCRF) by Royal Academy of Engineering, UK organized by Parul University Vadodara**.**
- **Ultracapacitor and its Application in electric vehicles at** GUJCOST Sponsored one week STTP on Future of Electric Mobility in India during 17th to 21st June 2019 Marawadi university of engineering and technology, Rajkot 2019.
- **DC-DC converter for Electric Vehicle** at GUJCOST Sponsored one week STTP on Future of Electric Mobility in India during 17th to 21st June 2019 Marawadi university of engineering and technology, Rajkot 2019.
- **Ultracapacitor and battery technologies and their role in green energy** at short term course on Essentials of Green Energy Technologies for Sustainable Environment and Energy Audit during 10 -15th Dec. 2018, V.V.P Engineering College, Rajkot.
- **Electrical Vehicle Charging and Power Quality Issues** at two-week short term course on Power Electronics for Distribution System and Electric Drives during 25June to 4 July 2018, SVNIT.

- **Energy Storage Devices** at two-week short term course on Power Electronics for Distribution System and Electric Drives during 25June to 4 July 2018, SVNIT.
- **Power Electronics and its application** at two-week short term course on Power Electronics for Distribution System and Electric Drives during 25June to 4 July 2018, SVNIT.
- **Integration of Electric Vehicles to grid** at One-week short term course on Power Quality and Distributed Power Generation during 20-24th December, 2017 at SVNIT, Surat.
- **Ultra-Capacitor and its Application** at One-week short term course on Power Quality and Distributed Power Generation during 20-24th December, 2017 at SVNIT, Surat.
- **E-MOBILITY FOR SMART CITY** at Southern Gujarat Chamber of Commerce & Industries, Surat, Augest,2017.
- **Selection of Electric Motors for Electric Vehicles** One-week short term course on QIP AICTE approved "Advances in Electrical Machines", 12-16th Dec, 2016.
- **Energy storage and Ultracapacitor** at NIELIT, Aurangabad during April 2015.
- **Energy management system for hybrid electric vehicles** at one-week short term course on "Electric Vehicles", during 26th to 30th May, 2014.
- **Introduction to Electric Vehicles** at one-week short term course on "Electric Vehicles", during 26th to 30th May, 2014.

17. **Reviewers:**

- Journal of Technology and Economics of Smart grids and Sustainable Energy, Springer Publishers.
- SAE International.
- Transportation Research Part D: Transport and Environment, Elsevier.

➢ **Member of Technical Societies**:

- Life Member, ISTE.
- Member, IEEE Vehicular Technology Society.

18. **Extra-Curricular Activities:**

- Reviewer for 9th National Power Electronics Conference 2019.
- Member Programme Committee at Sixth International Conference in Computing, Communication and Control (ICAC3-2019) on October 4-5,2019.
- Ph. D. Thesis reviewed at Sathyabama Institute of Science and Technology, 2018.

- Member [Technical], Consumer Grievances Redressal Forum [CGRF], Dakshin Gujarat Vij Company Limited [DGVCL] during 2009-2011.
- Session Chair at Third International Conference on Computer an Electrical Engineering (ICCEE 2010) held in Chengdu, China.
- Work as an expert for conducting final dissertation VIVA of major project of M-Tech Electrical Engineering (Power Electronics Machine and Drive) at Nirma University (2011).
- Act as an expert member for recruitment of teaching staff at Vidhyadeep Institute of Management and Technology in July 2011.
- Act as Examiner for M-Tech dissertation work at NIT Kurukshetra (2013).
- Act as Examiner for M-Tech dissertation work at NIT Kurukshetra (2014).
- Subject Expert for conducting Interviews for the post of lecturer Electrical Engineering, Technical Education, Rajasthan Public Service Commission, Ajmer (2016).
- Subject Expert for conducting Interviews at NIT Uttarakhand (2016).
- Session Chair at IECON-2017 held in Beijing, China.
- Member, City Development Committee, Southern Gujarat Chamber of Commerce and Industries.
- Member, Education Committee, Southern Gujarat Chamber of Commerce and Industries.
- Member, Local Management Committee, Technology Information Forecasting and Assessment Council (TIFAC) – CORE in Environmental Engineering, SCET, Sarvajanik Education Society.
- Member, K.L. Sarvajanik Girls High School, Sarvajanik Education Society.

19. **Consultancy Work:**

Electrical Engineering Department provides testing service to the industries, contribution towards testing services regularly.

Contribution in following major industry based consultancy

- Electrical Department offered technical training for degree and diploma engineers of RIL, CCE, 2020.
- Consultancy work for DGVCL 2014-15.
- Electrical Department offered man power development training for RIL, Hazira Anchor Cell,2015.
- Electrical Department offered training programme to Torrent power, Surat, 2007-08.
- Electrical Department offered training programme to ESSAR, Hazira,2007-08.

- Electrical Department offered degree level training programme to RIL Hazira during 2006-2009.

20. **Establishment of New Lab :**

- Microprocessor and Microcontroller laboratory during the year 2002.
- B-Tech Project Laboratory during the year 2002.
- Electrical Vehicle Laboratory during the year 2016-17.

21. **Departmental Activities :**

- Lab In-charge of Microprocessor and Microcontroller Lab.
- Lab In-charge of Electric Vehicle Lab.
- Chairman Time-table committee (From 2005 to 2008).
- Purchase coordinator (From 2015 to 2017).
- PG In-Charge Industrial Electronics (From July 2006 to October 2008).
- Section Head (Power System), EED (October 2008 to till date).
- Chairman PhD admission committee.

22. **Administrative Responsibility**:

- H.O.D (EED) during 2008-2011.
- Member, Board of Governors (BOG), SVNIT (February 2015 to October 2017).
- Mentor First year B. Tech Electrical Engg student, 2019.
- ICC Chairman – September 2018 to January 2020.
- Electrical Estate In charge – March 2017 to June 2019.
- Faculty In-charge library (March 2006 to February 2007).
- Worked as co-coordinators for central assessment for S.G.U.
- Co-Chairman, Institute Magazine Committee (From July 2008 to August 2010) .
- Member, Interview Committee for lecturer in July 2007.
- Member Admission committee.