

HEAD OF THE DEPARTMENT



Dr. M. Sharanya

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ACADEMIC PROFILE:

Degree	Specialization	University/College	% of Marks	Year of Completion
Ph. D	EEE	JNTUH, HYDERABAD	----	2020
M.Tech	PEED	JNTUH, HYDERABAD	83	2007
B.Tech	EEE	JNTUH, HYDERABAD	69.64	2001
Inter		BoI, HYDERABAD	80.5	1997
10 th CBSE	---	CBSE, NewDelhi	83.4	1995

EXPERIENCE: Total of 19 years experience at various levels of Academic Positions.

RESEARCH INTERESTS: Power Quality, Custom power devices, power electronics, electrical drives, electrical machines.

UG / PG PROJECTS GUIDED: 35

PUBLICATIONS:

INTERNATIONAL JOURNALS:

1. Published a paper entitled "Comparision Of Control Strategies for Power Quality Improvement Using Dynamic Voltage Restorer" in International Journal on Electrical Engineering and Informatics.
2. Published the paper entitled "Repetitive controller for Power Quality Improvement Using Dynamic Voltage Restorer and Shunt Hybrid Active Power Filters", in International Journal of Industrial Electronics and Electrical Engineering (IJIEEE)" e- ISSN: 2349-204X, p-ISSN:2347-6982, Volume 6, Issue 6 (Sep- Oct. 2018).
3. Published a paper entitled "LVRT capability of PVA system with CMPN fuzzy algorithm integration controlled VSC", in International Journal of Research Volume 7, Issue X, October/2018 ISSN NO:2236-6124.
4. Published a paper entitled "Comparison of Control Strategies for Power Quality Improvement Using Dynamic Voltage Restorer" submitted to International Journal on Electrical Engineering and Informatics.
5. Published a paper entitled "Dynamic Voltage Restorer and Hybrid Active Power Filter for Power Quality Improvement", in ARPN journal of Engineering and Applied Science, ISSN 1819-6608, Jan -2018, Volume 13, Issue-2.
6. Published a paper entitled "A Combination of Shunt Hybrid Active Power Filter and SVC for Power Quality Improvement", in STM Journals, Journal of Microelectronics and Solid-State Devices with ISSN: 2455-3336 Volume 4, Issue 2.
7. Published a paper entitled "Integration of Renewable Sources into Grid with Synchronous Reference Frame Control for Improvement of Power Quality" in International Journal of Innovative Technologies, ISSN 2321-8665 Vol.05,Issue.04, April-2017, Pages:0711-0714.
8. Published a paper entitled "FUZZY PI control based custom power devices for power quality improvement", in International Journal of research in advanced engineering technology, Volume 5, Issue 4 SEP 2016.
9. Published a paper entitled "A hybrid FUZZY-PI based improved IUPQC controller to supply extra grid-voltage regulation as a STATCOM", in International Journal of research in advanced engineering technology, Volume 5, Issue 4 SEP 2016.
10. Published a paper entitled "Integration of MPPT and pitch controller logic in standalone wind energy conversion using FUZZY", in International Journal of research in advanced engineering technology, Volume 5, Issue 2 DEC 2015.
11. Published a paper entitled "Application of Photo Voltaic Array in Single Switch Resonant Power Converter" in International Journal of Innovative technology, ISSN 2321-8665 Vol.03, Issue.11, December-2015, Pages:2130-

2135.

12. Published a paper entitled "Simulation of the regulated dc voltages from three different sections of converters fed to PMDC motor for constant & equal speed regulation" in, International Journal of Computer Science information and Engineering Technologies, ISSN 2277-4408 || 01102015-041

Vol 3, Issue 5, series 2.

13. Published a paper entitled "A PV Based Integrated Push-Pull Converter Fed to Induction Motor Drive with Closed Loop Fuzzy Controller" in International journal of scientific engineering and technology research, ISSN 2319-8885 Vol.04, Issue.37, September-2015, Pages:8112-8118.

14. Published a paper entitled "Simulation of a Cascade Cockcroft- Walton Voltage Multiplier Applied to Transformer less High Step-Up DC-AC Converter with Renewable Energy" in International journal of scientific engineering and technology

research, ISSN 2319-8885 Vol.04, Issue.36, September-2015, Pages:7888-7893.

15. Published a paper entitled "Improvement of Power Quality Using Hybrid Active Power Filter in Three-Phase Three-Wire System Applied to Induction Drive" in International Journal of Power System Operation and Energy Management, ISSN: 2231- 4407, Vol.4, Issue 1, 2013, pages 93-97.

16. Published a paper entitled "Design of Hybrid Series Active Filters for Harmonic Reduction in Single Phase Systems" in International Journal of Modern Engineering Research, ISSN: 2249-6645, Vol.3, Issue 5, Sept. – Oct. 2013, pp. 3170-3176.

17. Published a paper entitled "An Overview of Dynamic Voltage Restorer for Voltage Profile Improvement", International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249-8958, Vol. 2, Issue-2, December- 2012, pp.26-29.

INTERNATIONAL CONFERENCES:

1 Presented a paper titled "Current Quality Improvement using ANN based Hybrid Active Power Filter", at **International Conference on Recent Trends in Science, Engineering, Business Studies, Humanities and Social sciences (ICSEBSHS-2K19)**, SharnBasva University, Gulbarga, Karnataka during **30th Aug -1st September 2019**.

2 Presented a paper titled "Repetitive controller for Power Quality Improvement Using Dynamic Voltage Restorer and Shunt Hybrid Active Power Filters", at **215th International Conference on Electrical and Electronics Engineering (ICEEE)**, Dubai UAE, 16th-17th April-2018.

3 Presented a paper titled "A Combination of Shunt Hybrid Active Power Filter and SVC for Power Quality Improvement" at International Conference on Recent

Trends in Electrical Sciences & Medical Engineering (ICRTESME 2017) at **Manipal Institute of Technology, Manipal Karnataka**, Aug 8-10th 2017.

- 4 Presented a paper titled “Power Quality Improvement Using a Combination of Hybrid Active Power filter and Thyristorised Controlled Reactor” at International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017) at SKR Engineering college, Poonamalle, Chennai, Tamilnadu, on 1st and 2nd Aug 2017 under **IEEE Madras Section**. Proceedings published in **IEEE Digital Library** with ISSN no. 978-1-5386-1887-5/17/ ©2017 IEEE.
- 5 Presented a paper titled “Harmonic Mitigation Using Unified Power Quality Conditioners and Hybrid Active Power Filters” in International Conference on “Innovative Trends in Electrical, Power Control, Electronics and Communication Engineering”, held on 18th & 19th January 2014, Organized by Krishi Sanskriti, **Jawaharlal Nehru University, New Delhi**. Proceedings published in Research India Publications “Advance in Electronic and Electric Engineering, Volume 4, Number 2 (2014), pp. 121-126 with ISSN no. 2231-1297.
- 6 Presented the paper titled “Voltage Quality Improvement and Harmonic Mitigation using Custom Power Devices: DVR & Hybrid filter” in IEEE Prime Asia 2013 Conference on 20th & 21st December, 2013 at **GITAM University, Visakhapatnam**. Proceedings in **IEEE digital library** with ISSN no. 978-1-4799-2751-7/13/ 2013 IEEE.

NATIONAL CONFERENCES:

1. Presented a paper titled “Basic Mathematical Design of Three Phase Induction Motor Using Matlab Simulink” at National Conference on Emerging Engineering & Technology, (NCEET-2019) organized by Vignana Bharathi Institute of Technology, Hyderabad, 10th April 2019.
2. Presented a paper titled “PWM based soft start of Induction motor using semiconductor device” at National Conference on Advances in Engineering, Technology and Sciences (NCAETS-2019) organized by Sphoorthy Engineering college, Hyderabad, 4th April 2019.
3. Presented the paper titled “Harmonic Reduction in Single Phase Systems by Using a Hybrid Series Active Filter” in National Conference on “Advances and Applications in Power Systems, Power Electronics and Solar Energy”, held on 24th & 25th October, 2013, Organized by **JNTUH College of Engineering, Jagtial**.
4. Presented the paper titled “Analysis of PI Tuned Closed loop Five level

Multilevel Inverter Controller Three Phase Induction Motor” at the National Conference on Recent Trends in Power Systems & Power Electronics, on 17th February 2012, Organized by Dept. of EEE, BVC Engineering College, Amalapuram, Andhra Pradesh.

AWARDS RECEIVED

- Bharat Ratna Dr. Abdul Kalam Gold Medal Award for the year 2019 for Individual Achievement and National development at National unity conference by Global Economic Progress & Research Association (GEPRA) on 20th July 2019.
- Received Best Researcher Award for the year 2018 by International Journal for Research under Literal Access, IJRULA '18 by IDAMAS LEARNING CENTER (Malaysia) on 19th June 2018.
- Received Best Paper Award for the paper titled “PWM based soft start of Induction motor using semiconductor device” at National Conference on Advances in Engineering, Technology and Sciences (NCAETS-2019) organized by Sphoorthy Engineering college, Hyderabad, 4th April 2019.

INTERNATIONAL/NATIONAL CONFERENCES/ WORK SHOPS ORGANIZED:

1. Organized two-day workshop on “Electrical Simulation using Multisim” during 12th-13th 2016 at Vignana Bharathi Institute of Technology, Hyderabad.
2. Organized guest lectures for students by Eminent professors from Osmania University, T S Transco, industry and other colleges like Srinidhi Engineering college, MVSR.

WORKSHOPS/ SHORT TERM COURSES ATTENDED:

1. **Attended** one week workshop on AI techniques applications to power systems in Osmania University from 18th to 22nd November 2019.
2. Attended AICTE sponsored one-week short term training program (STTP) on “Modern Control Techniques in Power Systems & Electrical Drives” organized by department of EEE, GNITS, Hyderabad during 17th-22nd October 2019.
3. Attended AICTE sponsored five-day faculty development program on “Power Systems” from 23-9-19 to 27-9-19 organised by UGC- Human Resource Development Centre, JNTUH, Kukatpally, Hyderabad.
4. Attended one-week AICTE-ISTE sponsored induction program on “Recent Advances in Smart Grid Technology” during 21st - 26th January 2019 at University BDT college of Engineering, Davangere, Karnataka.

WORKSHOPS AND SEMINARS ORGANIZED WORKSHOPS AND SEMINARS ATTENDED

5. Attended three-day workshop on “E-CAD” during at Vignana Bharathi Institute of Technology, Hyderabad.
6. Attended one-week workshop on “Aurdino” during at Vignana Bharathi Institute of Technology, Hyderabad.
7. Attended two-day workshop on “Power Quality -Harmonic Analysis for Power Systems” during 19th - 20th September 2016 at Osmania College of Engineering, Osmania University, Hyderabad.
8. Attended one-week national workshop on “Emerging Trends in Power Electronics & Power Systems” (ETPEPS-2016) during 16th - 20th May 2016 at VNR Vignan Jyothi Institute of Technology, Hyderabad.
9. Attended a five-day workshop on “Power Electronics Applications” during 14th - 18th October 2013 at National Institute of Technology, Warangal.
10. Attended AICTE sponsored 3-day FDP on “Applications of FACTs Devices and Artificial Intelligence in Modern Power Systems” during 3rd to 5th Oct 2013 at Geethanjali College of Engineering and Technology, Hyderabad.
11. Attended a one-day workshop on SCILAB organized by PES IEEE-VBIT SB on 2nd August 2013 at Vignana Bharathi Institute of Technology, Hyderabad.
12. Attended a one-day seminar on “MATLAB & Simulink for Engineering Education” on 26th July 2013 by MathWorks India.
13. Attended two-day National Symposium and Technology Exhibition on “MicroGrids: Laboratory to Real Markets” conducted by IEEE PES/IAS/PELS joint chapter, Hyderabad Section during 22nd -23rd February 2013 at Mahindra Satyam Danube Auditorium, Hyderabad.
14. Attended two-day IEEE Power Colloquium organized by PES IEEE-VBIT SB in collaboration with IEEE PES/IAS/PELS joint chapter, Hyderabad Section during 1st -2nd February 2013 at Vignana Bharathi Institute of Technology, Hyderabad.
15. Attended Twenty second Faraday Memorial Lecture organized by IEEE Hyderabad Section on “Importance of Power Electronics in Electrical Energy” by Dr. N. Hingorani on 22nd Septerber 2012 at Osmania College of Engineering, Osmania University, Hyderabad.
16. Attended a state level seminar on “Nano Science and Technology” organized by IEEE COMSOC under IEEE-VBIT SB on 18th February 2012 at Vignana Bharathi Institute of Technology, Hyderabad.
17. Attended two-day national workshop on “Recent Trends in Power Electronics & Power Systems” during 6th -7th January 2012 at GITAM University, Hyderabad campus.
18. Attended three day workshop on “Applications of Power Electronics in Distribution Systems” organized by UGC-Academic Staff College, JNTUH during 22nd -24th December 2011 at G.Narayanamma Institute of Technology & Science, Hyderabad.
19. Attended two-day national seminar on “Nano Technology- its Future and Applications in Energy Sector” IEEE PES/IAS/PELS joint chapter,

Hyderabad Section during 26th -27th August 2011 at Mahindra Satyam Danube Auditorium, Hyderabad.

20. Attended IEEE – PES Student chapter first IEEE-PES Student chapter in Hyderabad inauguration on 6th August 2011 at Vignana Bharathi Institute of Technology, Hyderabad.
21. Attended two-day workshop on “Role of Power Electronic Technologies for Industrial Development” during 25th-26th February 2011 at TKR College of Engineering & Technology, Hyderabad.
22. Attended National level workshop on “Advances in Power Electronics” on 11th February 2011 at Global Institute of Engineering & Technology, Hyderabad.
23. Attended one day workshop on SCI-LAB organized by IEEE student branch at Vignana Bharathi Institute of Technology, Hyderabad.
24. Attended two-day workshop on “MATLAB and Simulink for Engineers” organized by IETE VBIT branch during 22nd – 23rd October 2010 at Vignana Bharathi Institute of Technology, Hyderabad.
25. Attended two-day National level workshop on “Modern Trends on AC Drives” during 30th Nov – 1st December 2007 at TKR College of Engineering & Technology, Hyderabad.
26. Attended three-day workshop on “Power Electronics Applications & Simulation of Electrical Drives” during 27th – 29th April 2006 at G.Narayanamma Institute of Technology & Science, Hyderabad.

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