

**Name: Dr. Tripura Pidikiti**

Designation: Associate Professor

Date of Birth: 26.07.1980

Date of Joining:

28.06.2018



Educational qualifications:

- Ph.D. in the faculty of Electrical & Electronics Engineering from JNTUK Kakinada in 2020 with title "Investigations of AC generators for Wind Energy Conversion Systems".
- M.Tech in Power Electronics and Electric Drives from Vignan's Engineering College(Guntur) affiliated to JNTUK, Kakinada in 2009.
- B.Tech in Electrical & Electronics Engineering from NBKR Institute of Science and Technology(Nellore) affiliated to Sri Venkateswara University in 2002.

Experience: 22 years

Industrial Experience: Nil

Teaching Experience: 22 years

Research Interests: Power Electronics and Drives, Wind Energy Conversion Systems, Solar PV Conversion Systems, Model Predictive control

#### **Research work / Research papers published:**

#### **Journals:**

1. **Tripura Pidikiti**, Shreedevi, Gireesha B, Mopidevi Subbarao, V.B. Murali Krishna, "Design and control of Takagi-Sugeno-Kang fuzzy based inverter for power quality improvement in grid-tied PV systems", Measurement: Sensors, Volume 25, 2023, 100638, ISSN 2665-9174.
2. D Kalpana, KK Malligunta, **P Tripura**, "A multi-functional converter based switched reluctance motor drive for electric vehicle" International Journal of Power Electronics and Drive Systems, 2022, 13 (4), 1975-1983
3. V.B. Murali Krishna, SSSR Sarathbabu Duvvuri, Kishore Yadlapati, **Tripura Pidikiti**, Peddeeti Sudheer, "Deployment and performance measurement of renewable energy based permanent magnet synchronous generator system", Measurement: Sensors, Volume 24, 2022, 100478, ISSN 2665-9174.
4. VB Krishna, V Sandeep, K Yadlapati, **T Pidikiti**, "A Study on Excitation Requirement and Power Balance of Self Excitation Induction Generator for Off-grid Applications Through Experiment and Simulation" Journal of Engineering Science & Technology Review, 2021, 14 (6), 162-168.
5. **Tripura Pidikiti**, G Tulasi Ram Das, "Analysis and Performance Evaluation of DFIG and PMSG Based Wind Energy Systems", International Journal of Computing and Digital Systems (IJCDS), 2019, 8(6), 557-563.
6. **Tripura Pidikiti**, G Tulasi Ram Das," Power Maximization and Control of PMSG Wind Energy System Without Wind Speed Sensors", International Journal of Control Theory and Applications, 2017, 10 (25), 253-260.
7. **Pidikiti, Tripura**, G Tulasi Ram Das, "Modelling and Simulation of ZDC Controlled PMSG based Wind Energy Conversion System", International Journal of Engineering & Technology (UAE) 7(1.8) (2018), 46-50.
8. **Tripura Pidikiti.**, and G Tulasi Ram Das. "Predictive Current Control for Zero D-Axis Current Control of PMSG Based Wind Energy Conversion System". i-manager's Journal on Power Systems Engineering, 6(2) (2018), 20-27.

9. **Tripura Pidikiti**, G Tulasi Ram Das, "Control of PMSG Based Wind Energy Conversion System with Three-Level Boost and NPC Converters", Journal of Electrical Engineering, 2016, 16(4), 401-406.
10. **Tripura Pidikiti**, Tulasi Ram Das G, Anupama K. "Performance Improvement Of PMSG Wind Energy Systems By Using Converters Controlled By Finite Control Set Model Predictive Control", Journal of Electrical Engineering 17 (1), 38-45.
11. K. Rebecca Angeline, **Tripura Pidikiti** and Srinivasa Kishore BabuYadlapati. "Modelling and Simulation of ANFIS Controlled Doubly FED Induction Generator Based Wind Energy System for Performance Enhancement", International Journal of control theory and Applications, Volume : No.10 (2017) Issue No. :5 (2017). Pages : 61-73.
12. SK Babu Y, **T Pidikiti**,"A DC-DC Converter with Battery Energy Storage System for Electric Vehicles", International Journal of control theory and applications 9 (33), 61-69.
13. P. Lakshmi Narayana, Srinivasa Kishore Babu Y and **Tripura P**, "Optimal Torque Control Strategy for A Variable Speed Wind Turbine", International Journal of Control theory and Applications 9 (29), 369-374.
14. **Tripura, P.**, and Y. Srinivasa Kishore Babu. "Intelligent speed control of DC motor using ANFIS." Journal of Intelligent and Fuzzy Systems 26, no. 1 (2014): 223-227.
15. **Tripura, P.**, and Y. Srinivasa Kishore Babu. "Fuzzy Logic Speed Control of Three Phase Induction Motor Drive." World Academy of Science, Engineering and Technology 60, no. 3 (2011): 1371-1375.
16. **Tripura, P.**, Y. S. Babu, and Y. R. Tagore. "Space Vector Pulse Width Modulation Schemes for Two-Level Voltage Source Inverter." International Journal on Control System & Instrumentation 2, no. 3 (2011).
17. Y. S. Babu, **Tripura, P** and M. Alekya. "Speed control of Separately excited DC motor using NARMA-L2 Controller." International Journal on Advanced Engineering & Applications, June 2010, pp.51-55.

#### **Conferences:**

1. A. Dahlmann, V. Y, S. Kouro, M. Aguirre and T. Pidikiti, "Modulated Model Predictive Current Control of a Three-Phase Photovoltaic Central Inverter", 2020 IEEE International Power and Renewable Energy Conference, Karunagappally, India, 2020, pp. 1-6.
2. Y.Srinivasa Kishore Babu, Tripura Pidikiti and P.Sai Prasanna. "Fuzzy Control of Zero Current Switching Resonant Buck Converter" In Proceedings of the IEEE Electrical, Electronics, Signals, Communication and Optimization (EESCO)-2015) January 24-25, 2015, pp. 182-187 India, 2015.
3. Y.Srinivasa Kishore Babu, Y.Ravindranath Tagore, P. Tripura. "Sliding Mode Control of ZVS Buck Converter" In Proceedings of the 2013 International Conference on Machine Intelligence Research and Advancement (ICMIRA 2013) December 21-23, 2013, pp. 95-99. IEEE India, 2014
4. Tripura, P., and Y. Srinivasa Kishore Babu. "Performance Improvement in Vector Control of Induction Motor Drive Using Fuzzy Logic Controller." In Proceedings of the International Conference on Soft Computing for Problem Solving (SocProS 2011) December 20-22, 2011, pp. 87-97. Springer India, 2012.(Scopus Indexed)
5. Y.Srinivasa Kishore Babu, P. Tripura "Intelligent Speed Control of Separately Excited DC Motor" at the International Conference Modeling & Simulation (MS-09) held at College of Engineering, Trivandrum-India during December 1-3, 2009
6. Y.Srinivasa Kishore Babu, P. Tripura "Intelligent Controller for Three-phase Induction Motor Drives" at the National Conference held at NIT, Warangal June 28-29, 2008.

#### **Workshops /Seminars / Courses Participated:**

1. Attended one week FDP on "Energy Harvesting Technologies" organised by Dept. of EEE, Geetanjali college of Engineering and Technology in association with IIC, IEEE PES/IAS/PELS-jt. Chapter and WIE AG IEEE Hyderabad Section from 27<sup>th</sup> Feb 2023 to 4<sup>th</sup> March 2023.

2. Has participated in IP Awareness/Training program under National Intellectual Property awareness Mission on August 11, 2022.
3. Completed one professional Development Hour on “Noise Sources in Electric Vehicles Architectures” presented by Karen Burnham organised by IEEE, USA on 18<sup>th</sup> December 2022.
4. Has completed in one week national level online FDP on “Electric Vehicles-Technological Advancements and trends” from 20<sup>th</sup> feb 2023-25<sup>th</sup> feb 2023 organised by Dept. of EEE of Vasireddy Venkatadri Institute of Technology in collaboration with IEI Local Student’s Chapter.
5. Has completed one week blended mode FDP On “Modern Technologies for Grid Integration of Renewable Energy Sources “ held from 14<sup>th</sup> to 18<sup>th</sup> March 2023, organised by the dept. of EEE, Narayana Engineering College, Gudur.
6. Has participated in one week FDP SEBI(Securities and Exchange Board of India) & NISM(National Institute of Securities markets) sponsored Investor Awareness program-Financial Literacy for you(FLY) from 7<sup>th</sup> oct 2021 to 7<sup>th</sup> july 2022 organised by Dept. of EEE, RVR & JC College of Engineering.
7. Has participated in day workshop “ASPIRE A self programming into Redefining Efficacy” organised by Alumni Cell & NSS Units of RVR & JC CE on 10.03.2023.
8. Has participated in 2022 IEEE R10 MINI PANEL OF Conference organisers on 18<sup>th</sup> November 2022 conducted by IEEE Guntur subsection and IEEE Hyderabad section at KLEF, Guntur.
9. Has participated in Blended mode Professional Development Program on “Outcome Based Education and Design Thinking” conducted by IEEE Guntur Subsection and Department of EEE, KLEF Deemed to be university from 7<sup>th</sup> to 15<sup>th</sup> October, 2022 under IEEE R10 Educational Activities Capacity Building Project.
10. Five day Online Faculty development program on —Recent Trends in Electrical Engineering| during 8<sup>th</sup> June to 12<sup>th</sup> June 2020, organised by Vishnu Institute of Technology, Bhimavaram.
11. Webinar on —A Review of Advanced Power Module Packaging and Thermal Management in WBG Era| on 16 June 2020 organised by IEEE.
12. One week National Level Online Faculty Development Program on "Online Teaching-Learning Processes using ICT Tools for Education 4.0" organized by Department of Information Technology, SVP CET Nagpur, in association with Computer Society of India from 8<sup>th</sup> to 13<sup>th</sup> June, 2020.
13. AICTE Training And Learning (ATAL) Academy Online FDP on "Energy Engineering" from 2020-12-7 to 2020-12-11 at GLOBAL ACADEMY OF TECHNOLOGY
14. Advanced Safety Architecture for Automotive Systems, 4 September 2019, organised by IEEE
15. IEEE Xplore Digital Library: Delivering Research Better Than Ever, 5 April 2020, organised by IEEE Education Society Chapter of IEEE Hyderabad Section
16. Managing Technical career- HR Leader’s perspective, 08 September 2019, organised by IEEE TEMS
17. —Advanced control design for power electronic converters|, 2-4 May 2020, organised by Mahendra Engineering College.
18. IEEE COLLABRATEC community and it’s benefits to members, Operations, 9 April 2020, organised by IEEE Computer Society Chapter, IEEE Hyderabad section
19. Three-Day Webinar Series on —Design of Power switched converters for Renewable Energy Applications|, on 9<sup>th</sup> to 11<sup>th</sup> May, 2020 organised by Koneru Lakshmaiah Education Foundation, Vaddeswaram, Guntur, A.P.,
20. Webinar on Security and privacy in the v2g network on 11 October 2019, organised by IEEE.
21. 5 Days online FDP on Universal Human Values and Professional Ethics from 13<sup>th</sup>-17<sup>th</sup> May 2020, organised by Chebrolu Engineering college, Chebrolu.
22. Online FDP on Role of IOT, Embedded, Electric Vehicle & Power Electronic Converters for Smart world from 18<sup>th</sup>-22<sup>nd</sup> May 2020 organised by St. Joseph’s College of Engineering in Association with IEEE Student Branch Chapter
23. Webinar on Solar PV Microinverters- Technology-Are they Replacing the Conventional Central Inverter?, 20 December 2019 organised by IEEE
24. Webinar on –The Cascaded Resonant Converter: A Hybrid Switched-Capacitor Topology with High Power Density and Efficiency, 30 October 2019 organised by IEEE.

25. Webinar on Power-Dense High-Efficiency Engine-Coolant-Capable 200 kW Silicon Carbide Inverter for Heavy-Duty Vehicles on 19 September 2019, organised by IEEE
26. Three day Faculty Development program on —Real Time Hardware-in—the-Loop(HIL) Simulation for power Electronics & Power Systems from 27th to 29th May 2020 organised by Anurag University, Hyderabad.
27. Webinar on —Introduction to writing research articles On April 15, 2020 by Bright Talk.
28. Webinar on —Podcast - Electric Vehicles in Emerging Markets On April 15, 2020 by Bright Talk.
29. Webinar on —Understanding Harmonics and Power Flow in Easy Power on 10 Dec 2019 by Easy Power.
30. —One day Workshop on eSim, a First Course in the IoT Series for Teachers on 21 September 2019, organised by the Teaching Learning Centre ICT at IIT Bombay,
31. FDP on —Teaching, Learning, and Assessment Strategies during 18 – 23 May 2020 Organized by IEEE Education Society Chapter of IEEE Hyderabad Section.
32. Webinar on Electric Vehicles: Can Legislation Keep up with Technology, 15 January 2020 organised by IEEE.
33. LaTeX101x: LaTeX for Students, Engineers, and Scientists an online course conducted from 24 September 2019 to 2 December 2019 offered by IITBombayX, an online learning initiative of Indian Institute of Technology Bombay.
34. —One day Workshop on Linux' held at R.V.R. & J. C. College of Engineering, Chowdavaram on 23 August 2019, organised by the Teaching Learning Centre, ICT at IIT Bombay.
35. A Review of Advanced Power Module Packaging and Thermal Management in WBG Era, 13 May 2020, organised by IEEE.
36. FDP on —Technological Advances in Power Switching Converters for Renewable Energy Sources and Fuel Cell Technology for E-vehicles During 01-06-2020 to 05-06-2020 organised by Bapatla Engineering College, Bapatla.

### **Membership of Professional Bodies:**

- Senior Member IEEE – Power Electronics Society and Industrial Applications, Young Professional; (International)
- Member, Solar Energy Society of India (SESI)

### **Reviewer for**

1. Journal of Circuits, Systems and Computers
2. IEEE Transactions on Industrial Electronics
3. Indonesian Journal of Electrical Engineering and Computer Science
4. TELKOMNIKA (Telecommunication Computing Electronics and Control)
5. International Conference on Electrical Engineering, Computer Science and Informatics (EECSI)
6. International Journal of Electrical and Computer Engineering (IJECE)
7. Bulletin of Electrical Engineering and Informatics
8. International Journal of Computing and Digital Systems (IJCDS)
9. International Conference on Computational Intelligence and Communication Networks (CICN)
10. Journal of Testing and Evaluation

### **Patents Published:**

1. A Patent application published by Govt. of India on the title "Integrating Electrical Appliances with Embedded Internet of things(IOT) hub for Automatic upgradation", Patent Application No: 202241004671 A, Date of Filing: 28-01-2022, Publication Date: 04-02-2022.
2. A Patent application published by Govt. of India on the title "Method for Assessing operating status of Electrical motors using Machine Training(ML) Models ", Patent Application No: 202141056413 A, Date of Filing: 06-12-2021, Publication Date: 10-12-2021.

3. A Patent application published by Govt. of India on the title "Integrated Monitoring and controlling device for distribution transformer", Patent Application No: 202041050300 A, Date of Filing: 19-11-2020, Publication Date: 11-12-2020.
4. A Patent application published by Govt. of India on the title "System and method of Intelligent food vending Machine KIOSK", Patent Application No: 202141025145 A, Date of Filing: 07-06-2021, Publication Date: 25-06-2021.

**Patents Awarded:**

1. A Patent application published by Govt. of India on the title "ARTIFICIAL INTELLIGENCE BASED SMART POWER GRID MANAGEMENT SYSTEM WITH DISTRIBUTED ENERGY RESOURCES INTEGRATION", Patent Application No: 202341064451 A, Date of Filing: 26/09/2023, Publication Date: 13/10/2023.

**FUNDED PROJECTS:**

1. An Industry sponsored project "Design and Prototyping of PV assisted IoT enabled Fast Charging Topologies" worth Rs. 5,00,000 was granted by M/S RC ALL-TECH POWER SYSTEMS PVT. LTD, Telangana in the year 2022.

**Grants Received for organizing events:**

1. Received **\$506.45 from IEEE IES Parent society** to organize events under Student branch Chapter Local Events.
2. Received **\$5000 from IEEE IES Parent society** to organize International IEEE IES SYP Congress-2024, which is going to be held at Hyderabad during 25-27, July 2024.
2. Received funding from **IEEE SPAX of 150\$** to organise Workshop on Skill Development: Innovation and Design Thinking on 03.04.2024 and 04.04.2024.
3. Fund of 400\$ was approved under WIE to organise STEM event in the month of August, 2024.
4. Fund of 500\$ was approved under Local Activity for Women in IES which is to be organised in the month of August, 2024

**Guest Lectures:**

1. Delivered a talk on " Work Life Balance " during International Women in Engineering Covid-19 Congress-2021, organized by IEEE Bangladesh Section from 21-22, August 2021.
2. Delivered a talk on " Electric Vehicles for Smart Cities" during Faculty Development Program on Trends in Electric Vehicles Design, organized by Narayana Engineering College, India from 22-26, February 2022.
3. Delivered a talk on " Power Electronic Converters and Control Techniques for Wind Energy Conversion Systems" for IEEE Student branch members at SGSITS, Indore, Madhya Pradesh on 14th September 2022.
4. Delivered a talk on " Industrial Electronics Society membership benefits and Resources " during Inauguration of IES Chapter inauguration at RGM CET Student Branch, on 05.09.2023.
5. Delivered a talk on " Industrial Electronics Society membership benefits and Resources " during Inauguration of IES Chapter inauguration at UCEN, JNTUK, Narasaraopet Student Branch, on 15.03.2024.

**ADMINISTRATIVE DUTIES:**

- Chair, Industrial Electronics Society Chapter, IEEE Hyderabad Section- Initiated and organized Dr. A S Rao memorial lecture (First Flagship Event)
- Former Secretary cum Treasurer for IES Chapter, IEEE Hyderabad Section.
- Convenor and Branch Counselor for IEEE Student Branch, RVR & JC College of Engineering.
- Advisor, Industrial Electronics Society Chapter Branch, RVR & JC College of Engineering
- Advisor, Women In Engineering Affinity Group, RVR & JC College of Engineering
- Advisor, Nanotechnology Council Chapter,, RVR & JC College of Engineering
- Institutes Innovation Council Coordinator, Portal data handling at RVR & JC College of Engineering,
- Convenor, Implementation of Government Policies Committee at RVR & JC College of Engineering