

Profile of Dr.K.Amrita

Personal Information

Name	Dr. K. Amritha Assoc. Professor, EEE Dept
Years of Experience	Teaching: 19 Years Industry: 3 Years 2 Months
Email Id	amritha.k@bvrithyderabad.edu.in amritam.ram@gmail.com
CN Id	AK1698
Area of Specialization	Power Electronics & Industrial Drives



Educational Qualifications

Doctoral Degree	PhD	KLEF, Guntur
PG Degree	M.Tech	JNTUH, Kukatpally
UG Degree	B.E.	B.E. (EEE), N.I.T. Surathkal, Karnataka

PhD Details :

Title : Design of a Fast-Performing Control Technique with Optimized Performance for an Isolated Wind Energy Conversion System

University : Koneru Lakshmaiah Deemed to be University in June 2023.

Awards / Honours Received

- ‘Special mention in Teaching’ as Demonstrated in the Faculty Colloquium held at VEDIC (Vishnu Educational Development and Innovation Centre)

Patents Published

- The Smart Navigator using GSM - Application No.202441075464
- Navigating The Green Transition: Advanced Power Management Strategies for Renewable Energy Grids - Application No.202441054014

Paper Publications

- Kodakkal Amritha; Veramalla R, Kuthuri, N.R.; Salkuti, S.R. ‘An Optimized Enhanced Phase Locked Loop Controller for a Hybrid System’. *MDPI Technologies* 2022, 10, 40. <https://doi.org/10.3390/technologies10020040>

- Andela, M.; Shaik, A.; Beemagoni, S.; Kurimilla, V.; Veramalla, R.; Kodakkal Amritha.; Salkuti, S.R. "Solar Photovoltaic System-Based Reduced Switch Multilevel Inverter for Improved Power Quality". *Clean Technol.* 2022, Accepted: 21 December 2021, 1–13. <https://doi.org/10.3390/cleantechnol4010001>
- Sravya Kedari, Rajagopal Veramalla, Amritha Kodakkal "Optimized Gains for the Control of Islanded Solar Photovoltaic and Wind System" *AEEE* 2021, 19(4), December 2021, DOI: 10.15598/aeee.v19i4.4227
- Amritha Kodakkal, Rajagopal Veramalla, Narasimha Raju Kuthuri and Surender Reddy Salkuti "An ALO Optimized Adaline Based Controller for an Isolated Wind Power Harnessing Unit", *MDPI- Designs* 2021, Volume 5, Issue 4; October 2021, ISSN - 2411-9660
- Kodakkal Amritha, Dr. Veramalla Rajagopal, Dr. Kuthuri Narasimha Raju and Dr. Sabha Raj Arya, 'Ant Lion Algorithm for Optimized Controller Gains for Power Quality Enrichment of Off-grid Wind Power Harnessing Units', *Chinese Journal of Electrical Engineering*, Vol.6, No.3, September 2020, ISSN : 2096-1529 (SCOPUS) doi: 10.23919/CJEE.2020.000022

Book Chapters:

- Amritha Kodakkal, Rajagopal Veramalla, Surender Reddy Salkuti. (2024). 'Optimized Control of an Isolated Wind Energy Conversion System' in Salkuti, S.R. (eds) *Energy and Environmental Aspects of Emerging Technologies for Smart Grid*. Green Energy and Technology. Springer, Cham. https://doi.org/10.1007/978-3-031-18389-8_4

Paper Publications with Students

- K. Amritha, Thadwai Greeshmika, Potharaju Sneha, Kunjeti Saipreethi, Gunda Likitha, "Integrating Solar and Wind Power for Sustainable Electrification", *International Journal of All Research Education and Scientific Methods (IJARESM)*, Volume 11, Issue 9, September-2023, ISSN: 2455-6211
- K. Amritha, Harika Savitry, Md. Shamma Parveen, K. Sai Soumya and B. Shirisha Reddy "TCSC-STATCOM Controller for the Voltage Stability Improvement of the Wind Farm Connected to the Grid", *International Journal of Engineering and Management Research*, Volume 11, Issue 4, August 2021, ISSN - 2250-0758
- K. Amritha, T. Soujanya, T. Sreeya, G. Shruthi, D. Sai Samyuktha "Wind Energy Conversion System Using PMSG", *International Journal of All Research Education and Scientific Methods*, Volume 9, Issue 8, August 2021, ISSN - 2455-6211

- K. Amritha, Kasoju Mounika, Kasoju Preethi Balakishan, ‘Design and Implementation of Electric Bicycle with Speed controlling mechanism and Battery monitoring system’, *International Research Journal of Engineering and Technology (IRJET)*, Volume: 07 Issue: 09. September 2020, E-ISSN: 2395-0056

International Conference

- ‘Dual switch High Gain Boost Converter for DC Microgrid Applications’ in the 2024 International Conference on Computational Intelligence for Green and Sustainable Technologies (ICIGST-2024) Organized by Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, India, In Association with IEEE Hyderabad Section, Guntur Subsection held during July 18-19, 2024
- Submitted paper on ‘Improvement in learning the concepts in technical education with the usage of vocabulary’ in Two –day International Virtual Conference ‘ELT in India: Tradition vs Innovation’ organized by the Dept. of Basic Science and Humanities of BVRIT HYDERABAD College of Engineering for Women, Hyderabad on the 6th & 7th July 2023.

International Conference with students

- K.Amritha, Morampudi Vasavi Chowdary (19WH1A0212), Akhila Angala (19WH1A0244), Sabbani Deepthi(19WH1A0235) & J Bhagyalaxmi (20WH5A0205), ‘Water Quality Sensor based on IoT’ in the 3rd International Conference on Pervasive Computing and Social Networking (ICPCSN 2023), organized by Narasu’s Sarathy Institute of Technology, Salem, Tamil Nadu, India held during 19th & 20th, June 2023 and is published in IEEE.

FDPs Organized

- One week International Professional Development Programme (PDP) on Smart Mobility: The Future of Autonomous Electric Vehicles from 11th November 2024 to 16th November 2024.
- One-week International Online Faculty Development Program (IFDP), on ‘Industrial Relevance of Electrical Engineering’ from 15th to 20th June 2020.

Workshops Organized

- Organized a workshop on ‘Self Driving Car’ for the second year students of BVRITH in association with Techtrunk Ventures Ltd. A total of 144 students participated.

FDPs Attended

1. One week AICTE Training And Learning (ATAL) Academy Faculty Development Program on ‘Design Thinking: Unleashing Creativity in Product Development’ at VASAVI COLLEGE OF ENGINEERING from 19/08/2024 to 24/08/2024.
2. 5 days National Level Faculty Development Program on “EV Technology: Battery Modeling, Sensors, BMS, Motors, and E-Bus Charging” from 12th to 17th of August 2024, organized by department of Electrical and Electronics Engineering, VVIET, Mysore.
3. One-Week National Level Faculty Development Programme (Hybrid Mode) on “Assimilation of Indian Knowledge Systems with NEP-2020: Prospect and Retrospect” from 30 July 2024 to 04 August 2024, organized by the Department of Basic Sciences & Humanities and Internal Quality Assurance Cell (IQAC), BVRIT HYDERABAD College of Engineering for Women, Hyderabad, India.
4. Attended one week Technical skill Enrichment program in ‘PLC & Automation’, Organized by Sri Vishnu Educational Society at Nettur Technical Training Foundation (NTTF), Bangalore during 16th October 2023 To 20th October 2023.
5. PALS-Project Proposal Writing Workshop on 28th & 29th APRIL 2023 organized by IIT Madras.
6. One-week online PDP/FDP on Energy Harvesting Technologies during 27th February 2023 to 4th March 2023 Organized by the Department of Electrical and Electronics Engineering, Geethanjali College of Engineering and Technology in association with IEEE WiE AG and IEEE PES/IAS/IELS jt. Chapter IEEE Hyderabad section.
7. A One-week National Level Online Faculty Development Programme On ‘Greening the Grid’ conducted by Mahatma Gandhi Institute of Technology (MGIT) from 17.05.2022 to 21.05.2022
8. AICTE Training and Learning (ATAL) Academy sponsored one week FDP on ‘Challenges and Control of Green and Sustainable Energy systems using Artificial Intelligence techniques’ conducted by BVRIT HYDERABAD College of Engineering for Women during 09/08/2021 to 13/08/2021.
9. Online Training Programme on 'Digital Tools for Writing, Authoring and Reviewing Manuscripts' during 12th to 24th July 2021, conducted by Electronics & ICT Academies of IIT Guwahati, NIT Patna, MNIT Jaipur, IIT Kanpur, IIITDM Jabalpur & IIT Roorkee, Supported by Ministry of Electronics and Information Technology (MeitY), endorsed by AICTE/UGC.
10. One week online FDP on ‘Up Skill in Electric Vehicle Technology’ conducted by the Department of Electrical and Electronics Engineering, Koneru Lakshmaiah Education Foundation, Vaddeswaram, Guntur, A.P, INDIA, from 31st May to 5th June 2021.
11. One week faculty training programme on ‘Application of Finite Element (FE) Analysis for Electric Motors and Electric Vehicles’ conducted by SRM Institute of Science and Technology, Ramapuram Campus, from 19th May 2021 to 27th May 2021.

12. One-week online FDP on 'Green Energy Development: Supporting Technologies and Environmental Aspects' conducted by REVA University IEEE PES Student Branch Chapter in association with IEEE PES Bangalore Chapter from 19th April -23rd April 2021.
13. Attended a three day FDP on 'How to write Good Research article and Proposal' organized by BVRIT HYDERABAD College of Engineering for Women from 18th to 22nd January 2021.
14. National level AICTE Training and Learning (ATAL) Academy Sponsored Online Faculty Development Programme on 'Advanced Control and Wireless Sensors for Smart Distribution Network with Renewable Energy Integration' from 09.11.2020 to 13.11.2020.
15. Attended the National Intellectual Property Literacy sessions organized under Kalam Program for IP Literacy and Awareness (KAPILA) by Ministry of Education, from 15.10.2020 to 23.10.2020.
16. One week online FDP on 'Emotional Intelligence' conducted by AICTE Training And Learning (ATAL) Academy at Indian Institute Of Information Technology, Allahabad from 13.09.2020 to 17.09.2020.
17. Organized and participated in one-week International Online Faculty Development Program (IFDP), on 'Industrial Relevance of Electrical Engineering' from 15th to 20th June 2020.
18. Attended one-week FDP on NBA and NAAC Accreditation Process organized by the IQAC of MS Ramaiah Institute of Technology, from 4th June to 8th June 2020.
19. Attended online 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, Organized by Department of Electrical & Electronics Engineering, Bapatla Engineering College, Bapatla.
20. Attended FDP on Microgrid, Electric Vehicles and Allied Areas organized by KITS, Warangal, from 1st June to 6th June 2020.
21. Attended FDP on AI organized by BVRIT HYDERABAD College of Engineering for Women from 22nd to 26th May 2020.
22. Attended International FDP on 'Research Innovatives And Recent Trends In Electrical Engineering' Conducted by Easwari Engineering College, Chennai from 18th to 22nd May 2020.
23. Attended FDP on 'Renewable Energy system' conducted by Cummins College of Engineering for Women, Nagpur, from 15th to 21st May 2020.
24. Attended One week FDP on 'LaTex' organised by SGU in association with Spoken Tutorial Project, IIT Bombay. From 27th May to 2nd May 2020.
25. Attended online sessions conducted by IIC (Institute Innovation Council) of MHRD's Innovation Cell, New Delhi from 28.04.2020 to 22.05.2020.

26. Attended a three-day FDP on ‘Machine Learning and its Applications’ organized by BVRIT HYDERABAD College of Engineering for Women from 28th to 30th September 2019.
27. Attended a one day workshop organized and conducted by VEDIC on ‘Unconscious Bias in the workplace’ on 1st May 2019.
28. Attended One-week FDP on "Design & Hardware implementation of inverters" in CVR College of Engineering from April 22nd to April 27th 2019.
29. Attended a one-day workshop organized and conducted by VEDIC on ‘Think-Technology – Transform - Level 1’ on 21st June 2018.
30. Three-day workshop organized and conducted by VEDIC on ‘Inspire, Impact and Introspect’ from 12th to 14th of December 2017.
31. Two-day workshop organized and conducted by VEDIC on ‘Research Readiness Strategies’ from 6th and 7th of December 2017.
32. One-week Workshop on ‘Wind Energy Conversion System' organized by SGSIT, Indore in association with GYAN from 19th to 24th December 2016.
33. One-week Faculty Development Program on ‘Solar PV Grid connected Power plant organized by Department of EEE of BVRITH in association with National Training Centre for Solar Technology, Karnataka from 5th to 10th December 2016.
34. One week Workshop on ‘Python, Scilab, Drupal’ organized by BVRITH, in collaboration with IIT Bombay from 4th November to 10th November 2016.
35. 3-day workshop on ‘Scientific Educational Practices’ in VEDIC from 19th to 21st September 2016.
36. Three day Short Term course on ‘Recent Trends and Applications in Smart and Microgrids’ at K L University from 10th July 2015 to 12th July 2015.
37. Two Day workshop on MATLAB & SIMULINK at BVRITH on 12th September 2014 to 13th September 2014.

Professional Memberships:

- Member of Institution of Engineers, India. (MIE) (M:14486740)
- Life Member of Indian Society for Technical Education (MISTE) (Number: LM 58721)
- Member of IAENG (Number: 190909)

Certifications

- Elite Gold Certification in the 12-week NPTEL course ‘Smart Grid: Basics to Advanced Technologies' offered by Indian Institute of Technology, Roorkey, during July to October 2024.

- Elite Silver Certification in the 12-week NPTEL course 'Power Electronics Applications in Power Systems' offered by Indian Institute of Technology, Guwahati, during July to October 2024.
- Elite Silver Certification in the 12-week NPTEL course 'Operation and Planning of Power Distribution Systems' offered by Indian Institute of Technology, Guwahati, during Jan to April 2024.
- Elite Silver' Certification in the 12-week NPTEL course 'Non-conventional Energy Resources' offered by Indian Institute of Technology, Madras, during Jan to April 2024.
- Certification on 'Optimization problems and algorithms', a course conducted by Udemy, on 28th March 2021.
- Certification on 'Critical Thinking & Problem Solving', a course conducted by EdX, on 21st August 2020.
- Certification on 'Interfacing with the Arduino', a course conducted by Coursera, on 1st August 2020.
- Certification on 'Results-Based Project Management-Monitoring & Evaluation', a course conducted by EdX, on 9th July 2020.
- Certification on 'Machine Learning', a 4-week course conducted by Coursera, on 06th June 2020.
- Certification on 'Programming for Everybody (Getting Started with Python)', a 6 week course conducted by Coursera, on 15th May 2020.
- Certification on 'Wind Energy', a 4 week course conducted by Coursera on 25th April 2020.
- Certification on 'Outcome based Education & Academic Quality Assurance' on 12th April 2020.
- Completed certification in 'SIMULINK Onramp', a self-paced training course by MathWorks on 22nd February 2020.
- Completed certification in 'MATLAB Onramp', a self-paced training course by MathWorks on 22nd February 2020.
- Elite certificate on 'Advanced Power Electronics and Control', an 8 Week course conducted by NPTEL.
- Elite certificate on 'Control Engineering', a 12 Week course conducted by NPTEL.
- Elite certificate on 'Introduction to Internet of Things', a 12 Week course conducted by NPTEL.
- Elite certificate on 'Effective Engineering Teaching in Practices', a 4 Week course conducted by NPTEL.
- Elite certificate on 'Educational Leadership', an 8 Week course conducted by NPTEL.
- Certification on "Fundamentals of Power Electronics" an 8 week online graded course conducted by Deshya Technologies Pvt Ltd (Incubated at IIT Guwahati).

Any Other Achievements

- Convener for ‘MEDHANVESH – 2024’, the Student Technical Fest of BVRIT HYDERABAD College of Engineering for Women, held during 23rd & 24th March 2024.
- Mentor for the project ‘CaRe- Can Recycling’ which was selected for the final round of Smart India Hackathon - 2022 under the problem statement given by Ministry of Mines – Recycling App.
- Mentor for the project ‘**Eco Whe’elie (E-cycle)**’ which was selected for the WEHUB - WEALPHA Programme being one among the 12 teams selected out of the 29 teams participated.
- Trainer for “Hands-on training on Solar Study Lamp Assembly” as a part of the Gandhi Global Solar Yatra (GGSY) on 2nd October 2019 organized by IIT Bombay.
- Mentor for the project ‘Health Index of Power Transformer Fleet in Transmission Utility’ which was selected for the final round of Smart India Hackathon – 2019, under the problem statement given by Skipper Seil. The venue of the event was Graphic Era University, Dehradun.