

FACULTY PROFILE

Name of The Faculty: AMARENDRA ALLURI (Unique-ID: 1-453850313)

Department: Electrical and Electronics Engineering, Gudlavalleru Engineering College

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FLAT NO 301, VRR TWINS NORTH BLOCK , AYYAPPANAGAR,VIJAYAWADA, AP, 520007

ACADEMIC QUALIFICATIONS:

| Name of the Degree | Discipline /Faculty | University/College | Date of Passing Degree |
|--------------------|--|------------------------------------|------------------------|
| Ph.D | Electrical and Electronics Engineering | JNTUK , Kakinada | 13.09.2023 |
| M.Tech | Electrical power systems | JNTU, Hyderabad | June 2004 |
| B.E | Electrical and Electronics Engineering | Guru Nanak Dev Engineering College | June 1997 |

PROFESSIONAL EXPERIENCE:

| Designation | Institution | Period |
|---------------------|-------------------------------------|---------------------------|
| Professor | SR Gudlavalleru Engineering College | 15/09/2023 to till date |
| Associate Professor | Gudlavalleru Engineering College | 25/08/2005 to 14/09/2023 |
| Assistant Professor | Gudlavalleru Engineering College | 01/03/2001 to 14/08/20105 |
| Service Engineer | TEKTRAN Power Pvt. Ltd. | 01/11/1997 to 30/10/1999 |

PROJECTS GUIDED:

| PhD | Post Graduation | Under Graduation |
|-----|-----------------|------------------|
| nil | 10 | 40 |

SPECIALIZATION: Electrical Power Systems

RESEARCH PUBLICATIONS (SCI/SCOPUS)

| S. No. | Title of the Paper | Authors' Names | Name of Journal& DOI | SCI/SCI-E/ ESCI/ Scopus | Impact Factor/ Index |
|--------|---|--|--|---|----------------------------|
| 1. | Power System Security Enhancement using FACTS Devices based on Yin-Yang-Pair Optimization Algorithm | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | Soft Computing https://doi.org/10.1007/s00500-022-07002-1 | Science Citation Index Expanded (SCI-E) - Free Available online 12th April 2022 | 3.643 Impact Factor |
| 2 | “Optimal Location for FACTS Devices: Hybrid Algorithm to Improve Power Flow and System Security ” | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | Cybernetics and Systems https://doi.org/10.1080/01969722.2022.2122016 | Science Citation Index Expanded (SCI-E) - Free Published on 20-09-2022 Publisher: TAYLOR & FRANCIS INC | 1.859 Impact Factor |
| 3 | "System Security Enhancement Using Hybrid HUA-GPC Approach under Transmission Line(s) and/or Generator(s) Outage Conditions" | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | International Journal of Numerical Modelling: Electronic Networks, Devices and Fields | SCI- Free WILEY Publications http://doi.org/10.1002/jnm.2970 first published on 29 October 2021 | 1.296 Impact Factor |
| 4 | Contingency Analysis in Power System- Using UPFC and DVR Devices with RDOA | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | Technology and Economics of Smart Grids and Sustainable Energy | ESCI, SCOPUS-Free https://doi.org/10.1007/s40866-022-00129-y | 2.66 Impact Score |
| 5 | Identification of the best location and size of IPFC to optimize the cost and to improve the power system security using Firefly optimization algorithm | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | Materials Today: Proceedings | SCOPUS - Free Elsevier Journal https://doi.org/10.1016/j.matpr.2020.11.318 Available online 28 December 2020 | 1.8 CiteScore |
| 6 | Security Enhancement in Power System Using FACTS Devices and Atom Search Optimization Algorithm | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | EAI Endorsed Transactions on Energy Web doi: 0.4108/eai.16-4-2021.169335 | SCOPUS –Free Springer Journal https://eudl.eu/pdf/10.4108/eai.16-4-2021.169335 | 1.28 ImpactScore |
| 7 | Enhance Power System Security with | 1. A. Amarendra | Journal of Current Science and | SCOPUS - Free ISSN 2630-0656 | 0.987 Global |

| | | | | | |
|---|---|--|--|--|---------------|
| | FACTS Devices based on Mayfly Optimization Algorithm | 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | Technology DOI: 10.14456/jcst.2022.15 | 1. Volume 12, Number 2 (May - August), 2022 2. pp. 162-210 | Impact Factor |
| 8 | Improving the Power System Security using UPFC and Optimization with Mayfly Algorithm | 1. A. Amarendra 2. Dr. L. Ravi Srinivas 3. Dr. R. SrinivasaRao | International Journal of Electrical, Electronics and Data Communication | Peer reviewed, Open Access Journal ISSN(p): 2320-2084, ISSN(e): 2321-2950 Volume-9, Issue-3, Mar.-2021, http://iraj.in | |

Patent Publications

| Name | Patent Title | Date of publish | Application Number | Status |
|--|--|-----------------|--------------------|---------------------------------|
| 1)Dr. M. Siva Kumar 2)Dr. L. Ravi Srinivas 3)Sri. A. Amarendra 4)Smt. Ch. Sujatha | Multiple Compartments of Smart Trolley with Automatic Separation Means | 04/11/2022 | 202241061748 | Published/ Pending for grant |
| A Amarendra and Others | Multi Speed Drone for Remote Field Monitoring System | 13/05/2022 | 202241025480 | Published |
| A Amarendra and Others | Improve Learning Possibilities Using Block chain & AI | 13/05/2022 | 202241025478 | Published |
| A Amarendra and Others | Design Of Real Time Control of launch vehicles using wireless sensor Network | 04/02/2022 | 202211004031 | Published |
| A Amarendra and Others | Multiple Compartments of Smart Trolley with Automatic Separation Means | 04/11/2022 | 202241061748 | Published |
| A Amarendra and Others | Hybrid & Electric Vehicles Charging at Running Time | 08/07/2022 | 202241037613 | Published |

All Publications

| Sl.No | Title of Paper | Name of Journal | Authors | Year |
|-------|--|---|--|------|
| 1 | SAPF for Power Quality Improvement Based on PODE Optimization Algorithm | International Journal of Engineering and Advanced Technology (IJEAT) | Amarendra, A.; | 2020 |
| 2 | Design of Discrete PID x (N-2) Stage PD Cascade Controller For Type1,5Th Order SISO Systems | International Journal of Science, Engineering and Technology Research (IJSETR) ISSN: 2278-7798 | Amarendra, A.; | 2015 |
| 3 | Simulation of High Voltage Gain Boost Converter For Battery Charging with PV System In a Single Stage Conversion | International Journal of Engineering and Computer Science(IJECS) ISSN:2319-7242 | Amarendra, A.; | 2015 |
| 4 | Control of Nonlinear Inverted Pendulum System Using PID, FUZZY Logic Controller and Particle Swarm Optimization | International Journal of Embedded & VLSI System ISSN: 2349 8129 | Amarendra, A.; | 2014 |
| 5 | Closed Loop Control of a High Voltage Gain Dc-dc Converter for Distribution Generation | International Journal of Electrical and Electronics Engineering (IJEED) ISSN: 2319-8885 | Amarendra, A.; | 2014 |
| 6 | Integration of Grid Connected Hybrid Generation System using Boost Inverter | International Journal of Electrical and Electronics Engineering (IJEED) ISSN (PRINT): 2231 5184 | Amarendra, A.; | 2013 |
| 7 | Simulation of an inverter working as an active power filter and as an auxiliary power supply with a bi-directional DC/DC converter | International Conference on Power System Operation and Energy Management (ICPSOEM-2011) | Amarendra, A.; | 2011 |
| 8 | Design, Matlab / Simulink Modeling of novel hybrid H bridge multilevel Inverter for PD application | International Conference on Power System Operation and Energy Management (ICPSOEM-2011) | Amarendra, A.; | 2011 |
| 9 | Multi Quadrant Operation of BLDC Motor-driven Electric Hybrid Vehicle | 2022 4th International Conference on Energy, Power and Environment (ICEPE) | Vamsi, V Hari; Rao, G Srinivasa; Babu, B Mahesh; Babu, G Kishore; Amarendra, A.; | 2022 |
| 10 | Power System Security Assessment (PSSSA) Module Using GEORFA Technique | International Conference on Artificial Intelligence Techniques For Electrical Engineering Systems | Amarendra, A; Ravi Srinivas, L; Srinivasa Rao, R; | 2023 |
| 11 | Power System Security Enhancement in FACTS Devices based on Yin-Yang-Pair Optimization Algorithm | Soft Computing | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2022 |
| 12 | Optimal Location for FACTS Devices: Hybrid Algorithm to Improve Power Flow and System Security | Cybernetics and Systems | Alluri, Amarendra; Lanka, Ravi Sreenivas; Rayapudi, Srinivasa Rao; | 2023 |
| 13 | System security enhancement using hybrid HUA-GPC approach under transmission line (s) and/or generator (s) outage conditions | International Journal of Numerical Modelling: Electronic Networks, Devices and Fields | Alluri, Amarendra; Lanka, Ravi Srinivas; Rao, Rayapudi Sreenivasa; | 2022 |
| 14 | Enhancement of Power System Security using Meta-heuristic Optimization | International Journal of Electrical and Electronics | Alluri, Amarendra; | 2017 |

| | Techniques | Engineering (SSRGIJEEE) | | |
|----|---|---|--|------|
| 15 | Contingency Analysis in Power System Using UPFC and DVR Devices with RDOA | Technology and Economics of Smart Grids and Sustainable Energy | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2022 |
| 16 | Identification of the best location and size of IPFC to optimize the cost and to improve the power system security using Firefly optimization algorithm | Materials Today: Proceedings | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2020 |
| 17 | Security Enhancement in Power System Using FACTS Devices and Atom Search Optimization Algorithm | EAI Endorsed Transactions on Energy Web | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2021 |
| 18 | Enhance Power System Security with FACTS Devices based on Mayfly Optimization Algorithm | Journal of Current Science and Technology | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2022 |
| 19 | Improving the Power System Security using UPFC and Optimization with Mayfly Algorithm | International Journal of Electrical, Electronics and Data Communication | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2021 |
| 20 | Power System Security Enhancement using FACTS Devices based on Yin-Yang-Pair Optimization Algorithm | Journal of Green Engineering | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2020 |
| 21 | An ITSA Methodology Based Power System Security Improvement with Unified Power Flow Controller under Contingency Rules | Design Engineering | 1. A. Amarendra, Dr. L. Ravi Srinivas, Dr. R. Srinivasa Rao; | 2022 |
| 22 | Power Quality Improvement based on VSHDE Algorithm Incorporating Shunt Active Power Filter. | Journal of Electrical Systems | Babu, B Mahesh; Srinivas, L Ravi; Amarendra, A; Reddy, | 2023 |

Papers with PG students

1. " Simulation Of High Voltage Gain Boost Converter For Battery Charging With PV System In a Single Stage Conversion" published in International Journal Of Engineering And Computer Science ISSN:2319-7242 Volume 4 Issue 7 July 2015, Page No. 13155-13160.
2. " DTC Scheme for a Four-Switch Inverter-Fed PMSM Motor Emulating the Six-Switch Inverter Operation" published in International Journal of Research in Science & Technology Volume: 2 , Issue: 3 , March 2015. ISSN: 2349-0845.
3. " Control of non linear inverted pendulum using PID Fuzzy logic controller and particle swarm optimization " published in International Journal of VLSI & Embedded System ISSN 2349 8129, Volume- 3, Issue -12, December 2014.
- 4." Closed Loop Control of a High Voltage Gain Dc–dc Converter for Distribution Generation " published in International Journal of Electrical and Electronics Engineering (IJEET) ISSN: 2319-8885 Volume-4, Issue-5, 2014.
5. "Integration of Grid Connected Hybrid Generation System using Boost Inverter" published in International Journal of Electrical and Electronics Engineering (IJEET) , ISSN (PRINT): 2231 – 5184, Volume-3, Issue-2, 2013
6. "A multilevel based Grid connected high Voltage Gain DC/DC converter" published in International Journal of Innovative Research & Development, ISSN 2278-0211, Oct 2012.

PAPERS PUBLISHED IN CONFERENCES / ATTENDED : 5

International Conferences Attended

1. "Optimum Location Of STATCOM To Strengthen The Security Of Power Systems Using Mayfly Algorithm" Published in International conference on sustainable innovation in Science and Technology (ICSIST-21) organized by G H Raison University, saikheda, chhindwara district, Madhya Pradesh India, during 26-27 February 2021. Paper Sl. No 8 page number 60.
2. "Improving the Power System Security using UPFC and Optimization with Mayfly Algorithm" published in at the International Conference on Electrical Engineering and Control Technologies (ICEECT) organized by Asian Society For Academic Research held in Nellore, India on 04 February 2021. Paper ID:AS-EECT-NLLR-040221-600, ISBN: 978-93-90150-26-7 Edition: 11
3. Presented a paper on " Power system security improvement using Flexible AC Transmission systems and Meta - Heuristic optimization Technique" at NEC-VICPSPE, "Virtual International Conference on recent trends in Power Electronics & Power Systems" , held on 28-29 July 2021
4. Presented a paper with title "Power System Security Assessment (PSSSA) Module Using GEORFA Technique " at International Conference On "Artificial Intelligence Techniques for Electrical Engineering Systems" (AITEES-2022) from 6th and 7th May, 2022 organized by S R Gudlavalleru Engineering College.
5. Presented a paper with title " Identification of the best location and size of IPFC to optimize the cost and to improve the power system security using Firefly optimization algorithm " at International Conference On " Computing and Intelligent techniques for automation of engineering systems November 30 to December 1 2018 organized by Gudlavalleru Engineering College

LIST OF WORKSHOPS ORGANIZED: 6

- Organized an **AICTE Sponsored One Day National Seminar On Non-Conventional Energy Sources** on 24-10-2009 at Gudlavalleru Engineering College. AICTE had sanctioned Rs 1,50,000 for organizing the seminar under AICTE Seminar Fund.
- Organized a two day workshop on **Industrial Automation - PLC SCADA** from 12-02- 2015 to 13-02-2015 at Gudlavalleru Engineering College.
- Organized a two day Workshop on **Embedded System-Automation** during 08-02-2014 to 09-02-2014 at Gudlavalleru Engineering College.
- Organized a one day Workshop on **PLC Applications** on 16-06-2012 at Gudlavalleru Engineering College.

- Organized and resource person for a one week Faculty Development Programme On “**ETAP Software Training and its Applications**” during 02-06-2015 to 08-06-2015 at Gudlavalleru Engineering College.
- Acted as Convener and Resource person for a Faculty Development Programme " **Pedagogy On Power Systems And Drives** " from 28-05-2015 to 30-05-2015.

LIST OF WORKSHOPS /CONFERENCES /SEMINARS ATTENDED: 40

- Undergone deputation cum-training in Asea Brown Boveri Limited, Nashik for three months about M.V. Switchgears (3.3 K.V. to 33 K.V). During the training period I was exposed to the practical knowledge about installation, commissioning, testing, trouble shooting of Switchgears, SF6 Gas & Vacuum Circuit Breakers.
- Undergone professional training for testing, configuring and commissioning of Remote Terminal Units which are using in SCADA (Supervisory Control and Data Acquisition System) implementing in twin cities by APSEB and in Chennai by TNEB. Training was given by ABB, RTU division, Bangalore.
- Participated in a workshop on **Instructional Design and Delivery** conducted by TTTI, Chennai during 21.04.2003 to 26.04.2003 and 03-07-2006 to 08-07-2006.
- Attended a one week course on **Modeling of Power System Components** conducted by Gayatri Vidya Parishat College of Engineering, Madhuravada, Vishakhapatnam from 01-12-2003 to 06-12-2003.
- Attended one day workshop on **Artificial Intelligent Techniques In Power Systems** conducted by K L College of Engineering, Vaddeswaram, Guntur district on 24-03-20106.
- Attended a three day short term course on **Power System Optimization Techniques in the presence of FACTS Devices** conducted by EEE Department, University College of Engineering, Andhra University, Vishakhapatnam from 08-02-2007 to 10-02-2007.
- Attended a three weeks course on **Simulation Tools for Electrical Engineering Applications** conducted by Jawaharlal Nehru Technological University College of Engineering, Kukatpally, Hyderabad sponsored by UGC from 06-12-2004 to 25-12-2004.
- Attended a two day workshop on **Power System Operation and Dynamics Control** conducted by EEE Department, University College of Engineering, Osmania University, Hyderabad under TEQIP from 04-07-2008 to 05-07-2008.

Attended a three day conference on **2012 PSCAD AND RTDS ASEA CONFERENCE** organized by Nayak Power systems Pvt. Ltd. Bangalore from 11-07-2008 to 13-07-2008.

- Attended a two day ISTE WORKSHOP on **Akash Education** organized by Indian Institute of Technology, Bombay from 10-11-2012 to 11-11-2012.
- Participated in a two week workshop on **Control Systems** conducted by Indian Institute of Technology, Kharagpur from 02-12-2014 to 12-12-2014.
- Attended a four day national level workshop on **Research Perspectives on Solar PV Systems** organized by PSG College of Technology, Coimbatore from 26-03-2015 to 29-03-2015.
- Attended a three day workshop on **Computer Applications To Power Systems Using MIPOWER** conducted by VR Siddartha Engineering College under TEQIP II S.C. 1.2 from 12-04-2015 TO 14-04-2015.
- Attended A One Week Faculty Development Programme On **Research Tools In Electrical Engineering** conducted by Lakireddy Balireddy college of Engineering, Mylavaram from 20-11-2014 to 25-11-2014.
- Attended an AICTE sponsored three day national conference on **Emerging Trends In Electrical Engineering For Sustainable Development** conducted by Gudlavalleru Engineering College from 24-11-2008 to 26-11-2018.
- Attended a one day workshop on **Applications of Wavelets in Electrical Engineering** conducted by Gudlavalleru Engineering College on 23-10-2010.
- Attended a two day workshop on **Emerging Trends Control of Electric Drives** conducted by Gudlavalleru Engineering College on 22-06-2012 to 23-06-2012
- Attended a two day workshop on **Advanced power system protection** conducted by Gudlavalleru Engineering College on 06-11-2012 to 07-11-2012
- Attended a two day workshop on **MATLAB, SIMULINK, Related Tool Boxes For Engineering Education** conducted by Academy of Design and Architecture at Gudlavalleru Engineering College on 03-04-2013 to 04-04-2013.

List of online FDPs attended

- A one-week AICTE sponsored Short Term Training Program on “Automation and Intelligent Control of Electrical Systems – Phase-I” organized by Department of Electrical and Electronics Engineering, Gudlavalleru Engineering College from 03-08-2020 to 08-08-2020.

- A National Level Webinar on “Intellectual Property Rights & Patents - A View” organized by IQAC, Gudlavalleru Engineering College, Gudlavalleru held during 10 - 12 August 2020.
- 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 8th to 13th June, 2020.

**MEMBERSHIP IN PROFESSIONAL BODIES: Fellow-IE(INDIA) (F-124936-5)
Life Member- ISTE (LM 44978)
Fellow-IETE (F-188570)**

CONSULTANCY ACTIVITIES: Rs 25000, At Rice mills, Gudlavalleru

GRANTS FETCHED: Rs.6,00,000 /- MODROB Scheme from AICTE
Rs.75,000/- Seminar Grant from AICTE
Rs.4,40,000/- Minor Research Project from UGC

- Organized an **AICTE Sponsored One Day National Seminar On Non-Conventional Energy Sources** on 24-10-2009 at Gudlavalleru Engineering College. sponsored by AICTE under seminar grant for an amount Rs75,000 vide file no. 1-4/FD/Sem (262) / 2008-2009
- Executed the Erection and Installations works of Power Systems Lab procured under MODROB funds sanctioned by AICTE wide File No : 8024 / RID / BOR / Mod – 532 / 2009-10 Dated 21st December 2009 for an amount Rs. 14,25,000/- with the head “**Establishment of Power Systems Lab**” as Co-Coordinator.
- Received a grant of Rs 6,00,000 from AICTE under the scheme MODROBS for executing the works of Modernization of Power Electronic and Drives Lab vide reference number 8024/RIFD/MOD-89(Pvt.)/Policy-III/2011-12 on the name of Co-ordinator Sri A. AMARENDRA , Associate Professor, EEE department.
- Received a grant of Rs 4,40,000/- from University Grants Commission provisionally as financial assistance for carrying the Minor Research Project Titled “**Enhancement of Power System Security Using Metaheuristic Optimazion Techniques**” vide reference number F.No: 4-4/2014-15 (MRP-SEM / UGC-SERO), Proposal No: 687 on the name of Principal Investigator, Sri A. AMARENDRA , Associate Professor, EEE department.

I assure that the above information is true and correct to the best of my knowledge and belief.

Place:

Date:

(A. AMARENDRA)