



## **FACULTY PROFILE**

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

**Department:** Electrical and Electronics Engineering, SR Gudlavalleru Engineering College

**Office Phone No:** 08674273737

**AICTE ID:** 1-453850313

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### **ADDRESS:**

Professor EEE Dept SRGEC Gudlavalleru 521356

### **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
AICTE – QIP - PG Certificate	Blockchain technology and Data Science	IIT Patna	30.12.2024 with CGPA 9.66
M.Tech	Electrical power systems	JNTU, Hyderabad	June 2004
B.E	Electrical and Electronics Engineering	Gulbarga University, 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

**Specialization:** Electrical Power Systems, Blockchain Technology, Data Science

## 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  <a href="https://doi.org/10.1007/s00500-022-07002-1">https://doi.org/10.1007/s00500-022-07002-1</a>	Science Citation Index Expanded (SCI-E) - Free  Available online 12th April 2022	<b>3.643 Impact Factor</b>
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  <a href="https://doi.org/10.1080/01969722.2022.2122016">https://doi.org/10.1080/01969722.2022.2122016</a>	Science Citation Index Expanded (SCI-E) - Free  Published on 20-09-2022  Publisher: TAYLOR & FRANCIS INC	<b>1.859 Impact Factor</b>
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  <a href="http://doi.org/10.1002/jnm.2970">http://doi.org/10.1002/jnm.2970</a> first published on 29 October 2021	<b>1.296 Impact Factor</b>
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  <a href="https://doi.org/10.1007/s40866-022-00129-y">https://doi.org/10.1007/s40866-022-00129-y</a>	<b>2.66 Impact Score</b>
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  <a href="https://doi.org/10.1016/j.matpr.2020.11.318">https://doi.org/10.1016/j.matpr.2020.11.318</a> 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  <a href="https://eudl.eu/pdf/10.4108/eai.16-4-2021.169335">https://eudl.eu/pdf/10.4108/eai.16-4-2021.169335</a>	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: <a href="https://doi.org/10.14456/jcst.2022.15">10.14456/jcst.2022.15</a>	1. <a href="#">Volume 12, Number 2 (May - August), 2022</a> 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, <a href="http://iraj.in">http://iraj.in</a>	
9	Improving Intrusion Detection using Satin Bowerbird Optimization with Deep Learning Model for IIoT Environment	E. Anbalagan <sup>1</sup> , Dr P S V Srinivasa Rao <sup>2</sup> , Dr. P. Vijayan <sup>3</sup> , Dr Amarendra Alluri <sup>4</sup> , Dr. D. Nageswari <sup>5</sup> and Dr. R. Kalaivani <sup>6*</sup>	International Journal of Electrical and Electronics Research (IJEER)	SCOPUS Open Access   Rapid and quality publishing Research Article   Volume 12, Issue 1   Pages 219-227   e- ISSN: 2347-470X	
10	Performance enhancement of EV charging stations and distribution system: a GJO-APCNN technique	B. Gunapriya <sup>1</sup> · B. Santosh Kumar <sup>2</sup> ·B. Rajalakshmi <sup>2</sup> ·A. Amarendra <sup>3</sup>	Electrical Engineering  <a href="https://doi.org/10.1007/s00202-024-02531-4">https://doi.org/10.1007/s00202-024-02531-4</a>	SCI Published on 1 <sup>st</sup> july 2024	1.7
11	Modelling of Harris Hawks optimization with deep learning-assisted microgrid energy management approach	1Kamalakkannan Sivaraman, 2 Kaliappan, Amarendra Alluri	International Journal of Power Electronics and Drive Systems (IJPEDS)	SCOPUS p 2128 Vol. 15, No. 4, December 2024, pp. 2128~2137 ISSN: 2088-8694, DOI: 10.11591/ijpeds.v15.i4. pp2128-2137	
12	Multi-Objective Optimization Algorithm Based Bidirectional Long Short Term Memory Network Model for Optimum Sizing of Distributed Generators and Shunt Capacitors for Distribution Systems	Amarendra Alluri 1 , Srinivasa Rao Gampa 1,* , Balaji Gutta 1 Nibir Baran Roy 3 and Debapriya Das	Inventions 2024, 9, 114. <a href="https://doi.org/10.3390/inventions9060114">https://doi.org/10.3390/inventions9060114</a>	SCOPUS  <a href="https://www.mdpi.com/journal/inventions">https://www.mdpi.com/journal/inventions</a>	

**Patent grants:** Multiple Compartments of Smart Trolley with Automatic Separation Means

**Patent Publications**

<b>Name</b>	<b>Patent Title</b>	<b>Date of publish</b>	<b>Application Number</b>	<b>Status</b>
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 PSODE 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 PMBLDC 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 (IJEEE) 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 (IJEEE) , 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, SVPCET 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 21<sup>st</sup> 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)**