

BIO-DATA

Dr. Guduri Yesuratnam

Senior Professor
Department of Electrical Engineering
University College of Engineering
Osmania University
Hyderabad-500007
Telangana, India



Date of Birth : First July 1972

Email : ratnamgy2003@gmail.com

Academic Qualifications:

Qualification	Year of completion	Subject	College/ University	Marks/ Grade
Ph.D	2007	Power System Security	Indian Institute of Science, Bangalore	CGPA of 6.7 points out of maximum 8.0 points
M.Tech	1997	Power Systems Engineering	Regional Engineering College, Warangal	First class with Distinction with 73.13%
B.Tech	1995	Electrical and Electronics Engineering	J.N.T.U College of Engineering, Kakinada	First class with Distinction with 83.13%

Employment History

- 2023-Till date Senior Professor, Department of Electrical Engineering, Osmania University, Hyderabad.
- 2013-2023 Professor, Department of Electrical Engineering, Osmania University, Hyderabad.
- 2007-2013 Associate Professor, Department of Electrical Engineering, Osmania University, Hyderabad,
- 1997-2007 Assistant Professor, Department of Electrical Engineering, Osmania University, Hyderabad.

- January 1997 to August 1997 Associate Lecturer, SRRS Government Polytechnique, Sircilla, Telangana

Total length of Teaching Service : 27 Years and 8 months
by September 2024

Total Research Experience : 20 Years

Industrial Experience : 8 months at BHEL (R&D), Hyderabad

Area of Specialization and research interests: : Computer aided power systems analysis, Reactive power optimization, Power system security, Voltage stability, AI applications in power systems and Gas Insulated Substations

Publications : No. of International Journals: 31

No. of International/national Conferences : 29

Research Guidance :
Number of Ph.Ds guided : 09 (Awarded)
Ph.D's Supervising : 08

Research Guidance:

a) Number of Ph.Ds guided

S. No.	Name of the Student	Title of the Thesis	Year of Award
1.	Dr.R.Naveena Bhargavi	Analysis of Fault Tolerant control system for improving the performance of FACTS controllers	2024
2	Dr.A. Sriker	A Practical Approach to Distribution System Analysis and Optimization	2023
3	Dr. Sree Naga Gouri Sarada Devi	Methodologies to Reduce Computational Complexity in Power System State Estimation	2023
4	Dr.P.Lokender Reddy	Application of Hybrid Evolutionary Algorithms to Optimal Reactive Power Dispatch	2023
5	Dr.C.V.Gopalakrishna Rao	Big Bang - Big Crunch Based Optimal Economic and Emission Dispatch	2023
6	Dr. N.Srilatha	Congestion management in power	2021

		system using artificial intelligence	
7	Dr. G. Mahender	Effect of On-load tap changer transformer operation on voltage stability under various operating conditions	2019
8	Dr.V.Punnaiah	Performance analysis of solar thermal powered systems and its impact on electrical distribution feeders	2018
9	Dr. K.Rayudu	Optimal Reactive Power Dispatch Using GA,ACO,ABC and BAT Algorithms	2018

Citations Record

Total Citations (source)

Google Scholar Citations

	All	Since 2018
Citations	752	342
h-index	13	09
i10-index	19	08

Academic Administrative Positions Held

1. Head of the Department of Electrical Engineering in Osmania University from March 2021 to March 2023.
2. Director, BC Cell of Osmania University from December 2020 to April 2022.
3. NBA coordinator, University College of Engineering, Osmania University, from 2016 to 2020 for outcome based education.
4. Director, Diamond Jubilee Library of the University College of Engineering,Osmania University from 2017 to 2018
5. Head of the Department of Electrical Engineering in Osmania University from Jan 2011 to 2013.
6. Nodal Officer (Procurement) of University College of Engineering, OU for TEQIP World Bank Project from 2008 to 2013.
7. Chairman, Board of Studies of Electrical Engineering, Osmania University from 2009 to 2011.

Member/ Participation in Bodies/ Committees on Education and National Development

- Expert committee member of National Board of Accreditation (NBA).
- Resource person of NBA hosted workshops on Outcome Based Education.
- Perception Committee Member of NIRF ranking .
- Expert committee member of AICTE .
- Have been identified as a Subject Expert for assisting the Union Public Service Commission (UPSC).
- Have been identified as an Expert in QS World University Ranking .
- External Expert for DRDO selections
- External Expert committee member for ISRO selections
- Nominated as Resource Person in preparation of content for KU Band 2001 for “Society for Networking for Excellence in Technical Education (SONET)”.
- Actively participated in various consultancy works associated with GHMC.
- Committee Member for Laboratory Developments of Mahatma Gandhi University, Telangana.
- Member of Board of studies in Kakatiya University, Warangal, Telangana
- Member of Board of studies in Sri Venkateswara University, Tirupathi, Andhra Pradesh
- Chairman of Board of studies in Mahatma Gandhi University, Nalgonda, Telangana.
- Member of Board of studies in Rajiv Gandhi University of Knowledge and Technologies (RGUKT), Basara, Telangana.
- Member of Board of studies in several affiliated colleges of Osmania University and JNTU, Hyderabad, Telangana.
- Member of Board of studies in JNTU, Hyderabad, Telangana.
- Member of Board of studies in JNTU, Kakinada, Andhra Pradesh.

List of Research Publications			
S.No	Year of Publication	Title of Research Article	Name of the Journal
1	2024	A practical approach to real time network topology processing in a radial distribution system.	International journal of Electric Power Systems Research (ELSEVIER)
2	2021	Chaotic Darwinian particle swarm optimization for real-time hierarchical congestion management of power system integrated with renewable energy sources	International Journal of Electrical Power and Energy Systems (ELSEVIER)
3	2014	Analysis of Yearly Solar Radiation by Using Correlations based on Ambient Temperature: India	Sustainable Cities and Society (ELSEVIER)
4	2014	Harnessing Clean WATTS from SUN: India's Contribution, a Techno Economic Analysis and Empowering the Future of Energy Sector	Sustainable Cities and Society (ELSEVIER)
5	2014	Performance Analysis of Solar Water Heating System in Centre for DNA Fingerprinting and Diagnostics (CDFD), Southern region of India	Southern Region of India, Environment, Development and Sustainability (SPRINGER)
6	2013	Significance of design for energy conservation in buildings: building envelope components	International Journal Energy Technology and Policy (INDER SCIENCE)
7	2013	Emission Constrained Optimal Power Flow by Big-Bang and Big-Crunch Optimization	Journal of Electrical Systems
8	2015	Multi-Objective optimization using Big-Bang Big-Crunch based Optimization: Application to optimal Economic Environmental Dispatch	Journal of Electrical Systems
9	2013	Optimal Power Flow with Valve Point Loading effects of Cost Function and Mixed-Integer Control Variables using Big-Bang and Big-Crunch Optimization	Journal of Advanced Computer Science & Technology
10	2019	A modified bacterial foraging algorithm based optimal reactive power dispatch	Indonesian journal of Electrical engineering and computer science
11	2020	A hybrid bacterial foraging-Particle swarm optimization technique for solving optimal	International Journal of Applied power Engineering

		reactive power dispatch problem	
12	2016	Performance analysis of Flat Plate Solar collector by using Al ₂ O ₃ Nanofluid at different concentrations with different Aspect Ratios	International Journal of Engineering Research and Management
13	2016	Optimization of electrical distribution system by using solar thermal powered systems and its impact on electrical distribution feeders.	Energy and Power Engineering
14	2021	Chaotic particle swarm optimization with attractive search space border points for optimal reactive power dispatch	I-manager's Journal on Power Systems Engineering
15	2016	Application of Ant Colony Optimization Algorithm for Voltage Profile Improvement	The Journal of CPRI
16	2020	Congestion management in deregulated environment aided by demand side response	International Journal of Advanced science and Technology
17	2020	Transient stability improvement using SSSC and STATCOM	International Journal of Advanced science and Technology
18	2017	BAT algorithm and Ant Colony Optimization based Optimal Reactive Power Dispatch to Improve Voltage Stability	European Journal of Engineering Research and Science
19	2019	Demand re-allocation in conjunction with feeder input power using iterative power flows method	International Journal of recent Technology and Engineering
20	2019	Optimal location of multi-type FACTS for power system security enhancement ⁹	International Journal of Engineering and Advanced Technology
21	2019	Congestion management considering economic and efficient generation rescheduling	International Journal of Recent Technology and Engineering
22	2019	Hybrid bacteria foraging Particle swarm optimization based optimal reactive power dispatch for the alleviation of voltage deviations	International Journal of Engineering and Advanced Technology
23	2019	Research on weighted least square and linear state estimation methods under ill condition of power system	International Journal of Engineering and Advanced Technology
24	2018	Estimation of fuel cost parameters for thermal power plants using LSE-Nelder-Mead local search (LSE-NM) Optimization	International Journal of Creative Research Thoughts

25	2012	Analysis of opportunities and challenges of solar water heating systems (SWHS) in India: Estimates from the energy audit surveys & review	Renewable & Sustainable Energy Reviews (ELSEVIER)
26	2011	Estimation of Annual Solar Radiation from measured temperatures by using Temperature-based (TB) approach in different cities in India	Sustainable Cities and Society (ELSEVIER)
27	2008	Optimal Reactive Power Dispatch in a Large Power System with AC/DC and FACTS controllers	IET Generation, Transmission and Distribution
28	2007	Fuzzy Expert Approach with Curtailed Controllers for improved Reactive Power Dispatch	International Journal of Emerging Electric Power Systems
29	2007	Congestion management in open access based on relative electrical distances using voltage stability criteria	International Journal of Electric Power Systems Research (ELSEVIER)
30	2007	Optimum Reactive Power Dispatch and Identification of Critical On Load Tap Changing (OLTC) Transformers”	International Journal of Electric Power Components and Systems. (Taylors and Francis)
31	2006	Comparison of Optimum Reactive Power Schedule with Different Objectives Using LP technique	International Journal of Emerging Electric Power Systems, CANADA

Seminars/ Conferences /Symposia Attended and Presented Papers

International:

1. Presented a Research paper entitled “An Expert System Approach of Congestion Management for Security and Economy Oriented Power System Operation”, in An IEEE sponsored 9th international conference on Power and Energy (IPEC 2010) during 27th to 29th October, 2010 in Singapore.
2. Presented a Research paper entitled “Congestion Management for Security oriented power System operation using Generation Rescheduling”, in An IEEE sponsored 11th international conference on Probabilistic Methods Applied to Power Systems (PMAPS 2010) during 14th to 17th June, 2010 in Singapore.
3. Presented a Research paper entitled “Congestion management technique using Fuzzy logic based on Security and economy criteria”, in 11th WSEAS international

conference on Artificial Intelligence, Knowledge Engineering and Data Bases during 22 to 24 February 2012 at University of Cambridge, UK.

4. Attended a one week Short term training program on “Power System Engineering”, from 9th – 13th June, 2008 in USA.
5. Presented a research paper entitled “RBF neural Network Approach for Security Assessment and Enhancement” at International conference in 2014 IEEE PES Transmission & Distribution Conference & Exposition held from 14th to 17th April, 2014 at Chicago, Illinois,.
6. Delivered an expert talk at Illinois Institute of Technology, Chicago on 21-04- 2014.

Reviewer of the Refereed Journals

- IEEE Transactions on Evolutionary Computation
- International Journal of Neural Computing and applications, Springer publications
- International Journal of Advances in Electrical and Electronics engineering.
- International Journal of Applied Energy, Elsevier publications.
- International Journal of Power and Energy Conversion.

Attended as a participant for Short Term Training Programmes in Higher Technical Level Institutions

- Participated in the short course on Induction Programm on “Instructional Skills and Strategies for Newly Recruited Teachers” from 5-5-97 to 30-5-97 at Technical Teacher’s Training Institute, Madras.
- Attended One-Week Power System course from 9-6-2008 to 13-6-2008 at Ohio, USA.
- Attended a Workshop on International Conclave on Higher Education: (ICHE-2016), Mahatma Mandir, Gandhinagar, Gujarat on 17-10-2016.
- Attended a Web Based Procurement Management Support System (PMSS) training programme on 29th – 30th Aug 2011 at Visvesvaraya National Institute of Technology, Nagpur.
- Attended a Refresher Course in “Simulation Tools for Electrical Engineering Applications” from 10-02-2003 to 1-03-2003 at JNTU, Hyderabad.

- Attended the NMEICT Outreach event from 2nd-4th Dec 2016 at IIT Bombay.
- Attended a Short Term Course on “Leadership Development for Academic Administrators” from 27-06-2023 to 4-07-2023 organized by UGC-Human Resource Development Centre,O.U, Hyderabad.
- Attended a Short Term Course on “PEDAGOGY TRAINING” from 30-9-2013 to 4-10-2013 at National Institute of Technical Teachers Training and Research (NITTR) Chandigarh.
- Attended a Two-Day Seminar on “Electrical Energy in A.P-Vision 2020” on 15th & 16th July 2000 organised by the Institution of Engineers (India),A.P State Centre as a delegate.
- Attended a Two-Week AICTE-ISTE Short Term Training Programme on EMTP, MATLAB, PSPICE PACKAGES AND THEIR APPLICATIONS IN ELECTRICAL ENGINEERING at REC Warangal from 27-12-1999 to 8-1-2000.
- Attended A Professional Development Online Training Programme on “Building Institutes for Future” from 9th Feb to 11th Feb 2021 organised by IIM,Visakhapatnam.



Prof. Guduri.Yesuratnam

Department of Electrical Engineering,
University College of Engineering, Osmania
University

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Citations	752	339
h-index	13	9
i10-index	19	8

TITLE	MERGE	DELETE	EXPORT	CITED BY	YEAR
Congestion management in open access based on relative electrical distances using voltage stability criteria G Yesuratnam, D Thukaram Electric power systems research 77 (12), 1608-1618				225	2007
Analysis of the opportunities and challenges of solar water heating system (SWHS) in India: Estimates from the energy audit surveys & review P Veeraboina, GY Ratnam Renewable and Sustainable Energy Reviews 16 (1), 668-676				75	2012
Optimal reactive power dispatch in a large power system with AC-DC and FACTS controllers D Thukaram, G Yesuratnam IET generation, transmission & distribution 2 (1), 71-81				62	2008
Chaotic darwinian particle swarm optimization for real-time hierarchical congestion management of power system integrated with renewable energy sources S Namilakonda, Y Guduri International Journal of Electrical Power & Energy Systems 128, 106632				47	2021
Congestion management for security oriented power system operation using generation rescheduling G Yesuratnam, M Pushpa 2010 IEEE 11th International Conference on Probabilistic Methods Applied to ...				30	2010
Monitoring the effects of on-load tap changing transformers on voltage stability D Thukaram, L Jenkins, HP Khincha, G Yesuratnam, BR Kumar 2004 International Conference on Power System Technology, 2004. PowerCon ...				20	2004
Ant colony optimization algorithm based optimal reactive power dispatch to improve voltage stability K Rayudu, G Yesuratnam, A Jayalaxmi 2017 International Conference on Circuit, Power and Computing Technologies ...				17	2017
Artificial Bee Colony algorithm for optimal reactive power dispatch to improve voltage stability K Rayudu, G Yesuratnam, A Jayalaxmi 2016 International Conference on Circuit, Power and Computing Technologies ...				17	2016
Analysis of yearly solar radiation by using correlations based on ambient temperature: India P Veeraboina, GY Guduri Sustainable Cities and Society 11, 16-21				17	2014