Dr. Ch. Ranga Rao
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Electrical & Electronics Engineering Department
R.V.R. & J.C. College of Engineering
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Date of Birth: 10-06-1979
Date of Joining: 04-07-2008

Educational Qualifications:

- Ph.D from Annamalai University,Chidambaram,Chennai
- M.Tech at R.V.R & J.C. College of Engg, Guntur, Affiliated to A.N.U, 2008.
- B.Tech at S.V.H College of Engineering, Machilipatnam , Affiliated to A.N.U , 2003.
- Qualified National level exam GATE-2008 in Electrical Engineering with 302 score.

Teaching Experience: 16 Years.

Research Interests: Power Systems- power quality improvement

Publons citations

Scopus Citations

Google Scholar Citations

ResearchGate Citations

Vidwan ID

Orcid ID

ACADEMIC/ADMINISTRATIVE DUTIES:

- Member in sports Committee, RVR&JC College of Engineering from 2009
- Member in IEEE (students chapter) Committee, EEE Department, RVR&JC College of Engineering from 2020
- In-charge Electrical Measurements lab, EEE Department, RVR&JC College of Engineering from 2012
- Member in A.C Units & Water Works Maintenance Committee, RVR&JC College of Engineering from 2024

Patent Published:

1. A Patent application published by Govt. of India on the title "Bidirectional DC-DC Power Converter Circuit to Reduce Current Ripples." Application No.202041052197 A, Date of filing of Application: 01/12/2020, Publication Date: 11/12/2020.

2. A Patent application published by Govt. of India on the title “Method for automatically upgrading a power tool system integrated with a cloud sever and IOT module”, Patent Application No: 202141056444A, Date of Filing: 06-12-2021, Publication Date: 10-12-2021.

3. A Patent application published by Govt. of India on the title “Method and system for providing IOT enabled smart electrical meters for predicting electrical power reliability”, Patent Application No: 202141056444A, Date of Filing: 28-01-2022, Publication Date: 04-02-2022.

Memberships in Professional Societies:

- Member in International association of engineers (IAENG) & Member in IRED

Projects Guided:

- B.Tech:24
- M.Tech:6

Research Work/Research Papers Published:

1. G Chaitanya , Ch Ranga Rao "Modified ANFIS based controller based MMC-PV Inverter with Distributed MPPT for Microgrid operation" Science, Technology and Development, Volume IX Issue VI JUNE 2020, Pages 218-226.
2. Y. Sushma ,Ch.Ranga Rao A Three-level NPC Inverter for Integrating PV and Battery Storage Using Fuzzy with Advanced Control Strategy (IJRAET),Vol.5,Issue3, AUG2016,Pages 273-283.
3. T.Lakshmi Prasanna, CH. Ranga Rao ,A Comparative Study of SVPWM with the Combined Unipolar and Bipolar PWM for the Power Quality Improvement International Journal of Scientific and Technology Research ISSN 2319-8885 Vol.04,Issue.13, May-2015, Pages:2440-2444
4. Ch. Ranga Rao, N. Hari Charan & K. Rajesh Babu, "Modelling and Simulation of DPFC System for Power Quality Improvement Trans" Steller Journal Publication and Research Consultance Electronics Engineering Research (IJEEER) ISSN (P): 2250-155X; ISSN (E): 2278-943X Vol. 5, Issue 3, Jun 2015, 61-66.

5. G.RENUKA , CH. RANGARAO , "A Fast and Effective Control Scheme for DVR," International Journal of Advanced Technology and Innovative Research Volume. 06, IssueNo.04, June-2014, Pages:219-222
6. Advanced Technology and Innovative Research (International Journal-June-2014).
7. A New Converter Topology for Grid Connected PV Application (International Journal - June-2014).
8. A 3-Phase Shunt Active Power Filter for Currents Harmonics Reduction (National Journal).
9. Chegudi RangaRao, R.Balamurugan, **RamaKoteswaraRao Alla**, "Simulation and Stability Analysis of Three-Phase Shunt Active Filter Based on Internal Model Controller (IMC)", Journal of Engineering Science and Technology Review, Vol. 14, No.6, PP 154-161, December 2021. (Scopus Indexed) https://doi.org/10.25103/jestr.146.18
10. Chegudi RangaRao, R.Balamurugan, **RamaKoteswaraRao Alla**, "Analysis of Three-Phase Shunt Active Filter under Wide Range of Load Conditions", International Journal of Renewable Energy Research (IJRER), Vol. 12, No 4, PP.1920-1931, December 2022. (Scopus and web of science, ESCI Indexed). https://doi.org/10.20508/ijrer.v12i4.13393.g8615
11. Chegudi RangaRao, R.Balamurugan, **RamaKoteswaraRao Alla**, "Synchronization Control Techniques for Shunt Active Power Filter: An Overview", Bulletin of Electrical Engineering and Informatics (BEEI), Vol 12, No 1, PP. 1-9, February 2023, (Scopus Indexed). https://doi.org/10.11591/eei.v12i1.4300
12. Chegudi RangaRao, R.Balamurugan, **RamaKoteswaraRao Alla**, "Artificial Rabbits Optimization Based Optimal Allocation of Solar Photovoltaic Systems and Passive Power Filters in Radial Distribution Network for Power Quality Improvement", International Journal of Intelligent Engineering and Systems (IJIES), Vol.16, No.1, PP. 100-109, February 2023. (Scopus Indexed). https://doi.org/10.22266/ijies2023.0228.09.
13. Chegudi RangaRao, R.Balamurugan, **RamaKoteswaraRao Alla**, "Simultaneous Allocation of Renewable Energy Sources and Custom Power Quality Devices in Electrical Distribution Networks Using Artificial Rabbits Optimization", Clean Energy Journal, OXFORD Academic Publisher, Vol. 7, No. 4, PP. 795–807, August 2023. (Scopus, Web of Science, ESCI Indexed). https://doi.org/10.1093/ce/zkad019

IEEE/International/National Conferences:

1. Dr.K.Chandra Sekhar, P. Suneel Raju, Y. Sumanth, Ch. Ranga Rao 'A Novel Pulse-Width-Modulation PID Based Quasi-Sliding-Mode Controller for Buck Converters' in International Journal of Engineering Research and Applications (IJERA) ISSN: 2248-9622 National Conference on "Advances in Energy and Power Control Engineering" (AEPCE-2K12) pp. 41-48.

2. Ch.RangaRao, Dr.A.RamaKoteswaraRao "Loop Power Controller for Power Control in Distribution Feeders", Virtual International Conference on Recent Trends in Power Systems and Power Electronics-2K21 (NEC-VICPSPE-2K21), Narasaraopeta

3.Ch.RangaRao, R.Balamurugan, Dr.A.RamaKoteswaraRao "Improvement of Power Quality Using Various Control Approaches in Shunt Active Power Filter", DST-SERB, Govt. of India Sponsored 1st International Conference on Emerging Trends in Electric Vehicles and Smart Technologies (ICETEVST-22) in association with SRMTRPEC IEEE Student branch, SRM TRP Engineering College (SRM Group), Tiruchirappalli, Tamilnadu, India, during April 21st & 22nd 2022.

4. Ch.RangaRao, R.Balamurugan, Dr.A.RamaKoteswaraRao, "An Overview of Various Control Strategies for Power Quality Improvement Using DSTATCOM", 2nd International Conference on Recent Trends in Power Systems and Power Electronics-2K22 (NEC-ICPSPE-2K22), Narasaraopeta Engineering College, Narasaraopet, Andhra Pradesh, India, July 22nd -23rd 2022.

Workshops / Seminars / Courses Participated:

1. Attended Three Day National Workshop on "Computer Applications to Power Systems Using Mi power "conducted by RVR & JC College of Engineering from 4th to 6th December 2008.

2. Attended Two Day National Seminar on "Solar Energy Harvesting Through Photovoltaic Cells and Storage" conducted by RVR & JC College of Engineering on 21st&22nd June 2013.

3. Attended Two Day National Workshop on "Advanced in Power System" conducted by SVU College of Engineering on 5th& 6th July 2013.

4. Attended Two Day National Workshop on 'Model Based Design for Power Electronics & Embedded Systems" conducted by RVR & JC College of Engineering on 12th& 13th December 2013.

5. Attended Two Day National Workshop on "Research Issues in Information Retrieval "conducted by Guntur Engineering College on 2nd& 3rd May 2014.

6. Attended Three Day National Workshop on "Computer Applications to Power Systems Using Mi - power" conducted by V R Siddhartha Engineering College on 12th - 14thApril 2015.

7. Attended Two Day National Workshop on "Intelligent Control System Design using MATLAB" conducted by VR Siddhartha Engineering College on 9th – 10th October 2015.

8. Attended Two Day National Workshop on "Applications of Soft Computing Techniques in Engineering Sciences "conducted by Guntur Engineering College on 30th& 31st January 2016.

9. Attended Two Day National Seminar on "Deregulated Power Systems" conducted by VR Siddhartha Engineering College on 27th February 2016.

10. Participated in Short Term Course on "Artificial Neural Networks & Fuzzy Logic Through ICT. Conducted by National Institute of Technical Teachers Training and research, Chandigarh from 24th to 28th April 2017.

11. Participated in Short Term Course on "Electric Power System" Conducted by Indian Institute of Technology ,Kharagpur from 12th June 2017 to 15th July 2017.

12.Two week ISTE STTP workshop on "Electric Power System" at RVR&JC College of Engineering(Remote centre, IIT Bombay) conducted by IIT, Kharagpur from 12-06-2017 to 15-07-2017.

13. Faculty development program FDP101X on "Foundation programme ICT for education" at RVR&JC College of Engineering(Remote centre, IIT Bombay) conducted by IIT, Bombay from 08-03-2018 to 12-04-2018.

14. Faculty development program FDP201X on “Pedagogy for online and blended teaching-learning process” at RVR&JC College of Engineering(Remote centre, IIT Bombay) conducted by IIT, Bombay from 03-05-2018 to 31-05-2018.

15. “SOFTWARE TOOLS FOR POWER CONVERTER DESIGN” at NIT ,Tiruchirappalli from 26.04.2021 to 30.04.2021.

16. "Simulation Tools for Electrical Engineering & its real time applications" at KHIT ,Chowdavaram from 07.06.2021 to 12.06.2021.

17. “Recent Trends and Developments in Electrical Power Engineering” at C.R.Engineering College , Tirupathi, from 21.06.2021 to 25.06.2021.

18. Participated in one day workshop on “ASPIRE A Self Programming Into Redefining Efficacy” on 10/03/2023 organized by RVR&JC College of Engineering, Guntur.

19. Successfully participated & completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on “Certain Aspects of Electric Vehicles to achieve Sustainable Energy” at Vignan's Lara Institute of Technology & Science from 11/12/2023 to 16/12/2023.

Sponsored Projects

- Power quality analysis and enhancement