

Dr. V.DEGA RAJAJI B.Tech (EEE), M.E (EEE), Ph.D (EEE)

Assistant Professor

Department of EEE

Dr YSR ANU College of Engineering & Technology

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Academic Qualifications:

Ph. D - EEE, “Novel Operation and Control Techniques For Grid Connected Renewable Energy Systems”, ANUCET, Acharya Nagarjuna University, 2021.

M. E - EEE (POWER ELECTRONICS) SSIET, ANNA UNIVERSITY, CHENNAI, India, 2008-2011.

B.Tech - EEE, KSRM COLLEGE OF ENGINEERING, KADAPA, India, 1996-2000.

Previous Experience:

1. Assistant Professor, Department of EEE, GOKULA KRISHNA COLLEGE OF ENGINEERING, SULLURPET, A.P., India, 12/2003 to 6/2008.
2. Assistant Professor, Department of EEE, SVVSN COLLEGE OF ENGINEERING, ONGOLE, 06/2010 to 08/2012.
3. Assistant Professor, Department of EEE, ANU College of Engineering and Technology, Acharya Nagarjuna University, Guntur, 22/08/2012 to till date.

Subjects Handled in the Department:

- Network Theory
- Linear Control Systems
- Power Electronics
- Power System Operation and Control
- Electric Drives
- Digital Logic Design

- Electrical Technology
- BEE
- Digital Signal Processing
- Electrical Measurements

Research Interests:

Power Electronics, Renewable Energy Sources.

Research Activities:

1. No of journal papers published	: 30
2. No of conference papers presented	: 8
3. No. of workshops , FDP's Organized	: 10
4. Guest Lectures	: 0
5. Acted as Resource Person	: 12

Journals:

1. Published Paper on “ **Power Factor Correction Using PFC Boost Converter**” in **IJERT** Journal in April 2013.
2. Published Paper on “**Solar Power Conversion Using 11- Level Cascaded H- Bridge Multilevel Inverter**” in Pezzottaite Journals in April to June 2014.
3. Published paper on “**Solar Power Conversion Using 15- Level Cascaded H- Bridge Multilevel Inverter**” in IJET 2014.
4. Published paper on “**Modelling & Simulation of Buck- Boost Converter using PV Cell**” in IJET 2014.
5. Published paper on “ **Control Strategy for Three Phase PWM Rectifier Using SVM Modulation**” in IJTEL in June 2014.
6. Published paper on “**Power Compensation Using Fuzzy logic Based For Grid Interactive PV System in IJIREEICE** in February 2015..
7. Published paper on “**Generalized UPQC for Power Quality Improvement under Critical/Unbalanced Loads using UPQC**” in IJSETR in February 2016.
8. Published paper on “ **Comparison of SATCOM and SVC at High Voltage Bus Line**” in IJSETR in February 2016.

9. Published Paper on **“Power Quality Improvement with a Shunt Active Power Filters using Fuzzy Logic”** in **IJRASET** in April 2016.
10. Published paper on **“Approach on Model Based Fault Diagnosis in Power Systems using Solid Oxide Fuel Cells”** in **IJRSR** in October 2016.
11. Published paper on **“Grid Synchronizing By Using Plc Programming & Matlab Analysis”** in **IJTIMES** in April-2017.
12. Published Paper on **“Simulation Power Flow Analysis And Contingency Analysis By Using Power World & Mat Lab Analysis”** in **IJTIMES** in April-2017.
13. Published Paper On **“A Single-Phase Cascaded Multilevel Inverter With Reduced Number Of Power Switches”** in **IJTRD** in July-Aug 2017.
14. Published Paper on **“A GA trained ANN model for maximum power point tracking in solar photo voltaic systems”** in **IJET (UAE) Scopus Journals, Vol NO.7(1.9)(2018)** with page no 294-301 in March 2018.
15. Published paper on **“ANFIS Forecast Model for predicting Wind Energy Generation based on Historical Data”** in Journal of Advanced Research in Dynamical & Control Systems **JARDCS Journal** (Elsevier Scopus), , Vol. 10, 12-Special Issue, 2018 with Page no. 183-190..
16. Published Paper on **“ Power Applications For Fuel- Cell Using Switching Regulators”** In Indonesian Journal Of Electrical Engineering And Computer Science(IJEECS) (Scopus Journal) of ISSN No: 2502-4752, vol 15 No.1 July 2019, pp 71-79.
17. Published Paper on **“ Mitigation of Voltage Sag, Swell in Hybrid Power Systems using D-STATCOM”** in **International Journal of Innovative Technology and Exploring Engineering(IJITEE)** of ISSN No:2278-3075, Vol.8 Issue 8, June 2019, pp : 1570-81.
18. Published Paper on **“ Maximum Power Point Tracking Controller of a PV System using SEPIC Converter”** in **International Journal of Emerging Engineering Research and Technology(IJEERT)**, Vol 7, Issue 7,2019, pp 13-15., ISSN: 2349-4409.

19. Published Paper on “ **An Intelligent Energy Management Frame Work using Fuzzy Logic for Grid Connected Hybrid Energy System**” in **International Journal of Recent Technology and Engineering(IJRTE- Scopus Journal)** of ISSN No:2277-3878, Volume- 8, Issue-4, November 2019, PP 1222-1226.
20. Published a Paper on “**Simulation And Evaluation Of DVR For The Improvement Of Low Voltage Ride Using Different Controllers**” in **Solid State Technology (SST- Scopus Journal)** ,Volume: 63 Issue: 6 Publication Year: 2020 with page no:20324-20334.
21. Published a Paper on” **DESIGN AND DEVELOPMENT OF 1-PHASE MULTI LEVEL INVERTER WITH POWER LOSSES CALCULATIONS**” in **International Journal of Electrical Engineering and Technology (IJEET- Scopus Journal)**, Volume 12, Issue 1, January 2021, pp. 80-87, Article ID: IJEET_12_01_009, ISSN Print: 0976-6545 and ISSN Online: 0976-6553
22. Published a Paper on “**A Novel Multiple DC-Link with Reduced Switches for Indiscriminate Configuration Single-Phase Switched-Capacitor Multi-Level Inverter** ” In **Design Engineering Journal** ISSN:0011-9342, issue 6, Year 2021 with Page no: 4911-4922.
23. Published a Paper on “**A Novel Integrated Converter with Demand Side Management in Stand Alone PV/Battery Hybrid Microgrid**” in **ANU Journal of Engineering & Technology** ISSN: 0976-3414 Vol 2, Issue I, Jun 2022.
24. Published a Paper on “**A review on novel design for the self-maintained solar panel** “in **ANU Journal of Engineering & Technology** ISSN: 0976-3414 Vol 2, Issue I, Jun 2022.

25. Published a Paper on **“A Comparative Study on Reducing Switches for Indiscriminate Configuration for Single-Phase Switched-Capacitor of Multi-Level Inverter with Defined Multiple DC-Link”** in **ANU Journal of Engineering & Technology** ISSN: 0976-3414 Vol 2, Issue I, Jun 2022.
26. Published a Paper on **“Design and Development of Optimal Electrical Vehicle (EV) in MATLAB/SIMULINK”** in **ANU Journal of Engineering & Technology** ISSN: 0976-3414 Vol 2, Issue I, Jun 2022.
27. Published a Paper on **“Induction Motor Power Optimization for Electric Vehicles Utilizing Artificial Neural Networks”** in **International Journal for Modern Trends in Science and Technology**, 8(10): 06-10, 2022.
28. Published a Paper on **“Enriching the MPPT in Wind Plant by using PID and AI Controllers for Switched Reluctance Generator”** in **International Journal for Modern Trends in Science and Technology**, 8(10): 11-18, 2022.
29. Published a Paper on **“DVR Integration of Solar PV System Connected Grid Using UPQC With Fuzzy “** in **International Journal for Modern Trends in Science and Technology**, 8(10): 43-49, 2022 ISSN: : 2455-3778 online.
30. Published a Paper on **“Enhance the Performance of DC Fast Charging Architectures with an Advanced Power Converter Topologies”** in **International Journal for Modern Trends in Science and Technology**, 8(10): 50-54, 2022 ISSN: : 2455-3778 online.

Conferences:

1. Presented a Conference Paper on **“One- Cycle Control Of Shunt Active Power Filter”** in **National Conference on “Recent Trends in Power Systems, Power Electronics And Drives at SSN College Of Engineering, Chennai.**
2. Participated in **“International Conference On Navigational Systems & Signal Processing Applications”** on 13th & 14th December 2013 at **University College of Engineering & Technology , Acharya Nagarjuna University, Guntur.**

3. Presented paper on “**Solar Power Conversion Using 15- Level Cascaded H- Bridge Multilevel Inverter**” at Dhanakekula College of Engineering, Vijayawada.
4. Presented paper on “ **Modelling & Simulation of Buck- Boost Converter using PV Cell**” at Dhanakekula College of Engineering, Vijayawada.
5. Presented Paper on“**DC/DC Converter using Coupled Inductor and Switched – Capacitor**”at **International Conference on Emerging Trends in Power Systems and Power Electronic drives (ICETPSPE2020)** March 13th & 14th, 2020 in Dr.Y.S.Raja Sekhara Reddy ANU College of Engineering & Technology, Guntur with PP 197-208.
6. Presented Paper on “**Generation Control for Load Frequency of Multi Area using BFOA**” at **International Conference on Emerging Trends in Power Systems and Power Electronic drives (ICETPSPE2020)** March 13th & 14th, 2020 in Dr.Y.S.Raja Sekhara Reddy ANU College of Engineering & Technology, Guntur with PP 209-216.
7. Presented Paper on “**Direct Power Control of PWM Rectifier for Induction Generator using Fuzzy Controller**” at **International Conference on Emerging Trends in Power Systems and Power Electronic drives (ICETPSPE2020)** March 13th & 14th, 2020 in Dr.Y.S.Raja Sekhara Reddy ANU College of Engineering & Technology, Guntur with PP 217-226.
8. Presented Paper on “ **A Novel Self Maintained Solar Panel Design & Development**” in **10th International Conferences on advances in Computing & Communications (ICACC-2021)** held at Rajgiri School of Engineering & Technology, Kochi, Kerala, India during 21-23rd October- 2021.

Acted As A Reviewer:

1. Acted as Reviewer for“ **Third IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques- ICEECCOT- 2018**”in association with IEEE Bangalore Section Organized by GSSS Institute of Engineering & Technology for Women, Mysuru on 14-15th December 2018.
2. Acted as Reviewer for “**4th IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques- ICEECCOT- 2019**” in association with IEEE Bangalore Section Organized by GSSS Institute of Engineering & Technology for Women, Mysuru on 13-14th December 2019.
3. Acted as Reviewer for“**Design and optimization of single photon indium phosphide on silicon chip for FMCW LiDAR**” Research article in **WJST Journal**.
4. Acted as Reviewer for “**The effects of surface roughness of the stainless- steel anode On electricity enhancement of Microbial Fuel cell**” Research article in **WJST Journal**.
5. Acted as Reviewer for “**Method To Improve Ripple Reduction During Phase Shedding In Multi phase Buck Converters For Scada And Other Similar Systems**” Research Article in **Indonesian Journal of Electrical Engineering and Computer Science**.
6. Acted as Reviewer for “**IEEE MYSURUCON 2021**” -The First Edition of the Flagship International Conference Series of IEEE Mysore Sub Section in association with IEEE Bangalore Section at NAVKIS College of Engineering, Hassan on 24th & 25th October 2021.
7. Acted as Reviewer for “**International Conference on Mobile Networks and Wireless Communications (ICMNWC-2021)**” organized by Department of Electronics and Telecommunication Engineering, Sri Siddhartha Institute Of Technology, Tumkur during 03-04 December, 2021.
8. Acted as Reviewer for “**5th IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques- ICEECCOT- 2021**” in association with IEEE Bangalore Section Organized by GSSS Institute of Engineering & Technology for Women, Mysuru on 10-11th December 2021.

9. Acted as **Session Chair** for “**5th IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques- ICEECCOT-2021**” in association with IEEE Bangalore Section Organized by GSSS Institute of Engineering & Technology for Women, Mysuru on 10-11th December 2021.
10. Acted Reviewer in the “**IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE-2022)**”, organized by the Ballari Institute of Technology and Management, Ballari, India in association with IEEE Bangalore Section and IEEE Information Society on 23rd-24th April, 2022.
11. Acted as Reviewer for “**IEEE MYSURUCON 2022**” on 16 and 17th October 2022.

Workshops attended:

1. Participated an “**Three- Day Workshop on Vector Control Of Induction Motor**”
Conducted by **JNTU College of Engineering, Hyderabad.**
2. Participated an One-day National Seminar on “**Energy Auditing & Conservation**”
at **Narayana Engineering College, Nellore.**
3. Participated the complimentary Training/ Orientation on “**MATLAB, SIMULINK & RELATED TOOL BOXES FOR ENGINEERING EDUCATION**”
at Acharya Nagarjuna University, Guntur.
4. Participated short term course on “**Recent Trends in Power Electronics, Drives and Power Quality at NIT, Rourkela** from June 23-27th 2014.
5. Participated **National Workshop on Big Data Analytics** on 9th – 10th December 2014 at **University College of Engineering & Technology, Acharya Nagarjuna University, Guntur.**
6. Participated One Week International Faculty Development Program on “**Research Innovatives and Recent Trends in Electrical Engineering**” at Easwari Engineering College, Chennai from 18 May to 22 May, 2020.

7. Participated One Week Faculty Development Program on “**Implementation and Simulation of Electrical Engineering Applications Using PLECS Tool**” at Vaagdevi College of Engineering, Hyderabad from 25-29 May 2020.
8. Participated One Week Faculty Development Program on “ **Recent Trends in Electrical Engineering**” at Vishnu Institute of Technology, Bhimvaram from 8th June to 12th June, 2020.
9. Participated AICTE Training And Learning (ATAL) Academy **Online** FDP on "**ENERGY STORAGE**" from **2020-9-7** to **2020-9-11** at KALLAM HARANADHAREDDY INSTITUTE OF TECHNOLOGY, Guntur.
10. Participated AICTE Training And Learning (ATAL) Academy **Online** FDP on "**Electric Vehicles**" from **2020-10-5** to **2020-10-9** at All India Shri Shivaji Memorial Society's College of Engineering Pune.