

Name: N.Dharani Kumar

Designation: Assistant Professor

Contact number: 9618923836

Extension number:

Date of Birth: 15-10-1986

Date of Joining: 03-09-2009

Educational qualifications: M.Tech

Submitted Ph.D from Annamalai University, Chidambaram.

Teaching Experience: 14 years

Research Interests: PERFORMANCE ANALYSIS OF SOLAR PV SYSTEMS



Academic/Administrative Duties

- Member of Institute Newsletter Committee, RVR&JC College of Engineering from 01/05/2013.
- In-charge Power Systems lab, EEE Department, RVR&JC College of Engineering from 21/11/2018.
- Member in Institution's Innovation Council (IIC), RVR&JC College of Engineering.
- Member of Institute Training & placement cell, RVR&JC College of Engineering from 04/03/2024.
- Member of Institute NSS Programme (Unit-III), RVR&JC College of Engineering from 01/01/2024.
- Member of Institute Code of conduct & Ethics committee, RVR&JC College of Engineering from 04/03/2024.

Memberships in Professional Societies:

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

Patent Applications Published: 03

- A Patent application published by Govt. of India on the title "BIDIRECTIONAL DC-DC POWER CONVERTER CIRCUIT TO REDUCE CURRENT RIPPLES", Patent Application No: 202041052197 A, Date of Filing: 01-12-2020, Publication Date: 11-12-2020.
- A Patent application published by Govt. of India on the title "METHOD FOR AUTOMATICALLY UPGRADING A POWER TOOL SYSTEM INTEGRATED WITH A CLOUD SERVER AND IOT MODULE", Patent Application No:

202141056444 A, Date of Filing: 06-12-2021, Publication Date: 10-12-2021.

- 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: 202241004657 A, Date of Filing: 28-01-2022, Publication Date: 04-02-2022.

Research work / Research papers published: 14

ISI/SCI/Web of Science/Scopus listed International Journals

1. **N.Dharani Kumar**, T.A. Ramesh Kumar, RamaKoteswaraRao Alla, “Effect of Partial Shading on the Performance of Various 4x4 PV Array Configurations”, ECTI Transactions on Electrical Engineering, Electronics, and Communications. Vol. 20, No. 3, PP 427–437, October 2022. (Scopus Indexed). <https://doi.org/10.37936/ecti-eec.2022203.247518>
2. **N.Dharani Kumar**, T.A. Ramesh Kumar, RamaKoteswaraRao Alla, “A Novel PV Array Configuration for Enhancing Maximum Power from PV Array”, Clean Energy Journal, OXFORD Academic Publisher, Vol 6, No 6, PP. 817–826, December 2022. (Scopus, Web of Science, ESCI Indexed). <https://doi.org/10.1093/ce/zkac054>
3. **N.Dharani Kumar**, T.A. Ramesh Kumar, RamaKoteswaraRao Alla, “Traditional and hybrid solar photovoltaic array configurations for partial shading conditions: perspectives and challenges”, Bulletin of Electrical Engineering and Informatics (BEEI), Vol. 12, No. 2, PP. 642-649, April 2023. (Scopus Indexed). <https://doi.org/10.11591/eei.v12i2.4520>
4. **N.Dharani Kumar**, T.A. Ramesh Kumar, RamaKoteswaraRao Alla, “Evaluation of series-parallel-cross-tied PV array configuration performance with maximum power point tracking techniques under partial shading conditions”, Clean Energy Journal, OXFORD Academic Publisher, Vol. 7, No. 3, PP. 620–634, June 2023. (Scopus, Web of Science, ESCI Indexed). <https://doi.org/10.1093/ce/zkad013>

Peer reviewed International Journals

5. V. Srinivasulu, N. Dharani Kumar, “Enhancing of DFIG During Three-Phase Fault Using Parallel Interleaved Converters and Dynamic Resistor”, was published in International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653, Volume 5 Issue XI November 2017.
6. K.Raviteja, N. Dharani Kumar, “Integration of MPPT & Pitch Control Logic in Standalone WECS System Using Fuzzy”, International Journal of Professional Engineering Studies, Vol. 6, Issue 4, pp. 150-159, August 2016.
7. Priyanka Donga, N. Dharani Kumar, “A New Single Phase Grid Connected Inverter

with Hybrid Renewable Energy Sources”, International Journal of Scientific Engineering and Technology Research , Vol.04,Issue 35, ISSN: 2319-8885 , pp.7318- 7325, August-2015.

8. Dr.K.Chandra Sekhar, P.Suneel Raju, N.Dharani Kumar, “Analysis and active/reactive power control of doubly fed induction generator (dynamic modeling)” National Conference On “Advances in Energy and Power Control Engineering” (AEPCE-2K12) and published in International Journal of Engineering research applications ISSN: 2248-9622, Pp.35-40.
9. N. Ravi, N. Dharani Kumar, “Impact of Renewable Energy Sources Penetration in a Micro grid”, International Journal of Engineering Research and Applications ISSN: 2248-9622, Vol. 4, Issue 5(Version 2), May 2014, and Pp.45-52.
10. N.Ravi, Y.Sumanth, N.Dharani Kumar, “The Improvement of Fault Recovery with RES Penetration”, IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), e-ISSN: 2278-1676, p-ISSN: 2320-3331, Volume 9, Issue 3 Ver. IV (May - Jun. 2014).

International/National Conferences

11. N.Dharani Kumar, Dr.A.RamaKoteswaraRao “Fuzzy Control Design for A Stand-Alone Wind Energy Conversion System”, Virtual International Conference on Recent Trends in Power Systems and Power Electronics-2K21 (NEC-VICPSPE- 2K21), Narasaraopeta Engineering College, Narasaraopet, Andhra Pradesh, India, July 28th - 29th, 2021.
12. N.Dharani Kumar, T.A.Ramesh Kumar, RamaKoteswaraRao A. “A Brief Review on Conventional and Renewable Power Generation Scenario in India” 2nd Electric Power and Renewable Energy Conference (EPREC-2021), organized by Department of Electrical Engineering, NIT Jamshedpur, Jharkhand during 28th - 30th May 2021.
13. N.Dharani Kumar, T.A. Ramesh Kumar, Dr.A.RamaKoteswaraRao “An Overview on Various PV Array Configurations for Extracting Optimal Power”, 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.
14. N.Dharani Kumar, T.A. Ramesh Kumar, Dr. A.RamaKoteswaraRao, “A Comprehensive Review of Solar PV Array Configurations”, 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.

Book-Chapters Published

1. N.Dharani Kumar, T.A.Ramesh Kumar, **RamaKoteswaraRao Alla** “A Brief Review on Conventional and Renewable Power Generation Scenario in India”, Recent Advances in Power Systems. Lecture Notes in Electrical Engineering, Vol. 812, pp 649–657, February- 2022, Springer, Singapore. https://doi.org/10.1007/978-981-16-6970-5_47 (Scopus Indexed).

Workshops /Seminars / Courses Participated:

- Participated in a short term course, ‘Artificial Intelligence for Cyber Physical Systems’, CPSIA-2023, Electrical Engineering Department, NIT Kurukshetra, during 17-22 July, 2023.
- Participated in one week National level FDP, ‘Cloud Infrastructure’, Brainovision Solutions India Pvt Ltd and AICTE, during 21-25 Aug. 2023.
- Participated in AICTE recognized FDP, ‘Big Data Applications in Electrical Engineering’, NIT Kurukshetra in association with NITTTR Chandigarh, Feb. 20-24, 2023.
- Participated in one week STTP, ‘Design, Implementation and Control of Electrical Systems using MATLAB’, department of EEE, Bapatla Engineering College, Bapatla, Jan. 3-7, 2023.
- Attended one day webinar, “New frontiers in renewable energy resources”, Renewable Energy Club, March 26 2022.
- Attended ATAL Academy online Elementary FDP, ‘Recent Trends in Renewable Energy’, Rajiv Gandhi Technical University, from 20- 24 Nov 2021.
- Attended one week National level Intercollegiate online FDP, ‘Outcome Based Education & Bloom’s Taxonomy’, Internal Quality Assurance Cell of Ramakrishna Mission Vivekananda Centenary College, 08-15 Nov 2021.
- Attended five days ATAL Academy online Elementary FDP, ‘Control Techniques in Electric Vehicles and Battery Management’, VNR Vignana Jyothi Institute of Engineering and Technology, 04-08 Oct 2021.
- Participated in Three days online Faculty Development Program on “Written Communication for Digital Teaching, Administration & Research” organised by

Dr.Babasaheb Ambedkar Technological University, Lonere Maharashtra from 22nd - 24th March 2021.

- Participated in a National Level 5 day online FDP on “Electric Power Grid Modernization Trends, Challenges and Opportunities”, conducted by the KITS,Guntur, from 09 to 13 June 2020.
- Attended One week Workshop on “Introduction to PLECS tool for power electronics applications” from July 02-06, 2020 organised by VR Siddhartha Engineering College, Vijayawada.
- Attended a QIP on “Electric Power grid modernisation: Trends, challenges and opportunities” organised by THE NATIONAL INSTITUTE OF ENGINEERING, Belagavi from July 20-24, 2020.
- Attended Five Days FDP Program on „Technological Advances in Power Switching Converters for Renewable Energy Sources and Fuel Cell Technology for E-vehicles“, organized by Bapatla Engineering College, Bapatla, from 01 to 05 June 2020.
- Attended a workshop on „Problem Identification, Research Methodology & Academic Writing“, organized by Kallam Haranadhareddy Institute of Technology during 28-29 Jan, 2019.
- Attended a Workshop on „Moodle Learning Management System“, conducted by IIT Bombay, organized by RVRJCCE, during 15 March, 2019.
- Attended a Two day faculty Workshop on 'Free and Open Source Software in Teaching and Learning ', organised by NIT Warangal during March 4 - 5, 2017.
- Attended a five day faculty Workshop on 'Real Time Control Of Electrical Machine Drives with DSPACE and FPGA', organised by department of EEE of Vignan's University during 1 to 5 June 2016.
- A two day Workshop on "Modern Power System Analysis Tools" organize by Electrical and Electronics department of Anna University during 12- 13 Feb 2015.
- One day workshop on "MATLAB,Simulink & Related Tool Boxes for Engineering Education" Conducted by Acharaya Nagarjuna University on 26-04-2014.
- Three day AICTE Sponsored National level workshop on "Signal and Image Processing Using Lab View", Department of Electronics (ECE) Engineering, RVR & JC College of Engineering, Guntur on 11-13 November 2013.
- Two day National level workshop on "Solar Energy Harvesting Through Photovoltaic cells And Storage (SEHTPVAS-13)", Department of Physics and Chemical Engineering, RVR & JC College of Engineering, Guntur during 21-06-2013 and 22-06-2013.