

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY (Autonomous) Hyderabad-500 090

Department of Electrical and Electronics Engineering

AY:2021-22

No. of Journal Publications		No. of Conference Proceedings	Books Chapter	Text Books
SCI	SCOPUS	SCOPUS	SCOPUS	National/International Publishers
15	12	32	5	2

SCI Journal Papers:

- [1]. Muhammad Raza Khowja, Robert Abebe, Gaurang Vakil, Adam Walker, Chintan Patel, Chris Gerada, **Phaneendra Babu Bobba** and Giuseppe Leonardo Cascella, "Review on the Traditional and Integrated Passives: State-of-the-Art Design and Technologies", Energies, MDPI, 2022, 15, 88. https://doi.org/10.3390/en15010088
- [2]. **Dogga Raveendhra**, Poojitha Rajana, Kalamchety Srinivasa Ravi Kumar, **Praveen Jugge**, Ramesh Devarapalli, Eugen Rusu, and Hady H. Fayek, "A High-Gain Multiphase Interleaved Differential Capacitor Clamped Boost Converter", Electronics 2022, 11, 264, https://doi.org/10.3390/electronics11020264
- [3]. Kalamchety Srinivasa Ravi Kumar, Alagappan Pandian, Vedula Venkata Sastry and **Dogga Raveendhra**, "Capacitor Clamped Coupled Inductor Bi-Directional DC-DC Converter with Smooth Starting", Machines 2022, 10, 47. https://doi.org/10.3390/machines10010047.
- [4].Satyanarayana Kosaraju, Devaraju Aruri, Murahari Kolli, G. Sai Kumar, **Phaneendra Babu Bobba**, "Study on machinability of Ti6Al4V with coated inserts–cutting force, surface finish and material removal rate prediction using ANN", International Journal on Interactive Design and Manufacturing (IJIDeM), 2022, https://doi.org/10.1007/s12008-022-00874-5
- [5]. G Durgasukumar, M Nagaraju, **B Pakkiraiah**, "Interval Type-2 Fuzzy Space Vector Modulation for Matrix Converter", SN Applied Sciences-Springer, 2022, https://drive.google.com/open?id=1V-Psat94ah6UHGVNXBere36Tq2gMeCuv
- [6].Sai Vasudeva Bhagavatula, Venkata Rupesh Bharadwaj Yellamraju, Karthik Chandra Eltem, P. N. Shashank, **Phaneendra Babu Bobba**, Satyanarayana Kosaraju, and Naveen

- Kumar Marati, "Real-time monitoring of battery state of charge using artificial neural networks", International Journal of Ambient Energy, 2022, doi.org/10.1080/01430750.2022.2049872
- [7]. **Suresh Kumar Tummala**, Satyanarayana Kosaraju, and **Phaneendra Babu Bobba**, "Optimized power generation in solar using carbon substrate for reduced greenhouse gas effect", Applied Nanoscience 12, pp. 1537–1543, 2022.
- [8].M Uma Maheswara Rao, C Subba Rami Reddy, P Lakshmi Narayana, **D. S. N. M Rao**, Idamakanti Kasireddy, "Stability improvement in microgrids using hybridization of RSFCL along with fuzzy Based SAPF", International Journal on Interactive Design and Manufacturing (IJIDeM), 2022, https://doi.org/10.1007/s12008-022-00919-9
- [9]. Neerudi Bhoopal, Aman Ganesh, **Dokku Sivanaga Malleswara Rao**, Idamakanti Kasireddy, Ranjith Kumar Gatla, Devineni Gireesh Kumar, "Modelling and performance evaluation of 18w PEM Fuel Cell considering H2 pressure variations", Journal of New Materials for Electrochemical Systems, Vol. 25, No.1, pp. 01-06, January 2022
- [10]. **Suresh Kumar Tummala**, Satyanarayana Kosaraju, **Phaneendra Babu Bobba**, "Optimized power generation in solar using carbon substrate for reduced greenhouse gas effect", Applied Nanoscience, 2022, https://doi.org/10.1007/s13204-021-02335-z
- [11]. **Suresh Kumar Tummala**, **Phaneendra Babu Bobbaa** and Kosaraju Satyanarayana, "SEM & EDAX analysis of super capacitor", Advances in Materials and Processing Technologies, 2022, https://doi.org/10.1080/2374068X.2022.2040175
- [12]. **Srinivasa Rao Davu**, Ramesh Tejavathu, **Suresh Kumar Tummala**, "EDAX analysis of poly crystalline solar cell with silicon nitride coating", International Journal on Interactive Design and Manufacturing, 2022, https://doi.org/10.1007/s12008-022-00889-y
- [13]. J. Srinivas Rao, **Suresh Kumar Tummala**, and Narasimha Raju Kuthuri, "Comparative Analysis of PWM techniques for 15-level cross-connected H bridge inverter", Nanotechnology for Environmental Engineering, 2022, https://doi.org/10.1007/s41204-022- 00225-5
- [14]. **Suresh Kumar Tummala**, Indira Priyadarshini T, "Morphological Operations and Histogram analysis of SEM Images using Python", Indian Journal of Engineering and Materials Sciences, 2022, https://op.niscair.res.in/index.php/IJEMS/index
- [15]. **Usha Rani Vinjamuri**, Loveswara Rao Burthi, "Internet of things platform for energy management in multi-microgrid system to enhance power quality: ARBFNOCS technique", Int J Numer Model, John Wiley & Sons Ltd., 2021.

SCOPUS Journal Papers:

[1]. Ranjith Kumar Gatla, Sainadh Singh Kshatri, Patthi Sridhar , **Dokku Sivanaga Malleswararao** , Devineni Gireesh Kumar , Alladi Sathish Kumar , Jianghua Lu, "Impact

- of Mission Profile on Reliability of Grid-Connected Photovoltaic Inverter", Journal Européen des Systèmes Automatisés Vol. 55, No. 1, pp. 119-124, 2022.
- [2].P.M.Venkatesh, M. Umamaheswararao, N. Bharath Kumar, **DSNM Rao**, "Design and Implementation of H bridge multilevel cascaded inverter for solar PV applications", International Journal of Mechanical Engineering, Vol. 7 No. 1 January, 2022
- [3].K Sathyesh, **P. Ravikanth**, and **D. Raveendhra**, "Rectifier Load Analysis for Electric Vehicle Wireless Charging System using Fuzzy Logic Controller," High Technology Letters, ISSN NO: 1006-6748, Volume 27, Issue 7, pp.586-592, july 2021.
- [4]. Akhila and **B. Pakkiraiah**, "Z-Source Based Single -Phase Buck–Boostmatrix Converter," High Technology Letters, ISSN NO: 1006-6748, Volume 27, Issue 9, pp.77-85, 2021.
- [5]. Vadlakonda Ranadeep, **Dogga Raveendhra**, "Control of Capacitively Coupled Impedance source type Wireless Power Transfer Network," High Technology Letters, ISSN NO: 1006-6748, Volume 27, Issue 7, pp.15-20, july2021.
- [6]. Neerudi Bhoopal , **Dokku Sivanaga Malleswara Rao** , Bharath Kumar Narukullapati ,Idamakanti Kasireddy , and Devineni Gireesh Kumar, "Selective Harmonic Elimination Based THD Minimization of a Symmetric 9-Level Inverter Using Ant Colony Optimization", Mathematical Modelling of Engineering Problems Vol. 8, No. 5, pp. 769-774, 2021.
- [7]. Akhila, **B. Pakkiraiah**, "Z-Source Based Single -Phase Buck–Boost matrix Converter", High Technology Letters, ISSN NO: 1006-6748, Volume 27, Issue 9, 2021
- [8]. Keerthi Volisetty, **Dola Gobindha Padhan**, **Dogga Raveendhra**, "Single Phase H Bridge Inverters Without Using Additional Power Electronics by Power Decoupling Strategy", High Technology Letters, Volume 27, Issue 10, October 2021.
- [9].B. Helez Hemanth, **V.Usha Rani**, and **Dr. J. Sridevi**, "Power Quality Enrichment in Renewable Smart Grid through Power Factor Correction Using Fuzzy", Design Engineering ISSN: 0011-9342, Issue: 9, pp.15679 15693, 2021
- [10]. V. Vijaya Rama Raju, K. H. Phani Shree, S.V.Jayarama Kumar, "Voltage instability identification with modified L-index using synchrophasor data", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 23, No. 3, pp. 1340-1349, September 2021.
- [11]. Mr. N. Saiteja, V. **Vijaya Rama Raju**, "THD Mitigation for Critical Loads by Using Current-Source Inverter with ANN Based Electrical Spring", Design Engineering, ISSN: 0011-9342, Issue: 9, pp. 15668 15678, 2021.
- [12]. **V. Vijaya Rama Raju**, K. H. Phani Shree, S. V. Jayarama Kumar, "Development of cost-effective phasor measurement unit for wide area monitoring system applications", International Journal of Electrical and Computer Engineering (IJECE), Vol. 11, No. 6, pp. 4731-4739, December 2021.

SCOPUS Conference Proceedings:

- [1]. Ranjith kumar Gatla, N. V Prasad K, Jianghua Lu, Mahesh Thati, Devineni Gireesh kumar, **D. S. Naga Malleswara Rao**, K Devender Reddy, "Performance Evaluation of CMLI with Various Fault Conditions", IEEE Fourth International Conference on Advances in Electronics, Computers and Communications (ICAECC), 2022
- [2].P. Chandra Babu, **D. S. Naga Malleswara Rao**, B. Venkata Prasanth, Gireesh kumar D, Anuradha T, and Priya P, "Performance Comparison of Various SPV Module Connections in Partial Shading Conditions", 8th International Conference on Smart Structures and Systems (ICSSS), 2022.
- [3]. **Dr. D.S. Naga Malleswara Rao**, Rishi Sundara, R. Vamshi Krishna, M. Ayyan Varma, S. Srujan, B. Sai Prasad," State-of-the-art Analysis on the Design Parameters of Distributed Transformer using IoT", Proceedings of the Sixth International Conference on Intelligent Computing and Control Systems (ICICCS 2022).
- [4]. Sadula Leela Rani, V. Vijaya Rama Raju, "V2G and G2V Technology in Micro-Grid Using Bidirectional Charger: A Review", IEEE International Conference on Power, Control and Computing Technologies, (ICPC²T –2022), organized by the Department of Electrical Engineering, National Institute of Technology Raipur, India, held from 01- 03, March 2022
- [5]. Shaik Gousia begum, **Syed Sarfaraz Nawaz**, "A study of Comparative analysis of fuzzy logic controller and neural network for dc–dc buck converter", E3S Web of Conferences 309, 01021 ICMED 2021.
- [6].Ranjith Kumar Reddy Banda, **Karuna kumar Davala**, **Dola Gobinda Padhan**, Anil Kumar Rajagiri, "Frequency Analysis of Grid Connected EVS by using Artificial Neural Network (ANN)", E3S Web of Conferences 309, 01027, ICMED 2021.
- [7]. Arunsai V, Srividya Devi P, and Vijaya Laxmi.U, "Design of Fuzzy-PID controller using logarithmic approximations for IMC-LFC Model", E3S Web of Conferences 309, 01030, ICMED 2021.
- [8]. Choppadandi Srikanth, **Dola Gobinda Padhan**, N. Kiran Kumar, "AVR System Analysis And Simulation By Using FOPID And Parameters Variation Effects", E3S Web of Conferences 309, 01033, ICMED 2021.
- [9]. Srikanth Boyini, **Srividya Devi Palakaluri**, **Rekha Mudundi**, "ANN based LFC with coordination strategies of DERs in Hybrid Isolated Micro Grid Environment", E3S Web of Conferences 309, 01036, ICMED 2021.
- [10]. Shravani Sattu, **Vinay Kumar Awaar**, and **Praveen Jugge**, "Speed control of robust position sensor less PMBLDC motor by Fuzzy controller", E3S Web of Conferences 309, 01063, ICMED 2021.
- [11]. Vijaya Krishna Muragani, and **Anil Kumar Rajagiri**, "Analysis of Hybrid Energy Storage System for Hybrid Electric, Battery Electric and Plugin Hybrid Electric Vehicles

- using Bidirectional DC/DC converter", E3S Web of Conferences 309, 01064, ICMED 2021.
- [12]. Kavati.Nagendar, and **V.Vijaya Rama Raju**, "ANN Based Current Controller for Hybrid Electric Vehicles", E3S Web of Conferences 309, 01065, ICMED 2021.
- [13]. A. Ashwini , **V. Usha Rani** , **J. Sridevi**, "Compensation of active and reactive power in PV- WIND battery system by using ANN technique", E3S Web of Conferences 309, 01067, ICMED 2021.
- [14]. R. Kavyasree, **J. Sridevi** and **V. Usha Rani**, "Reliability Analysis with Renewable DGs for Loss Reduction in Radial Distributed Generation", E3S Web of Conferences 309, 01071, ICMED 2021.
- [15]. J Santosh, **Anil Kumar Rajagiri**, **Prashanth M**orri, "Battery, Ultra capacitor Hybrid Energy Storage System (HESS) for EV applications with PI and Fuzzy logic controllers", E3S Web of Conferences 309, 01072, ICMED 2021.
- [16]. Sai Vasudeva Bhagavatula, Venkata Rupesh Bharadwaj Yellamraju, Karthik Chandra Eltem, Phaneendra Babu Bobba and Naveen Kumar Marati, "An Extensive Study on Machine Learning based Battery Health Estimation", E3S Web of Conferences 309, 01074, ICMED 2021.
- [17]. Chaitanya Kasala, **Vinay Kumar Awaar**, **Praveen Jugge**, "Power quality enhancement using Artificial Neural Network (ANN) based Dynamic Voltage Restorer (DVR)", E3S Web of Conferences 309, 01100, ICMED 2021.
- [18]. Someshwara Thota, **Vinay Kumar Awaar**, **Praveen Jugge**, and Tara Kalyani S, "Grid-Connected Rectifier Based Dynamic Voltage Restorer To Improve Power Quality By Compensating Voltage Sag And Swell", E3S Web of Conferences 309, 01108, ICMED 2021.
- [19]. CH Jagadeesh and **Phaneendra Babu Bobba**, "Comparative Analysis of Coil Structures and Orientations of Single Transmitter and Multi Receivers Wireless Power Transfer System", E3S Web of Conferences 309, 01118, ICMED 2021.
- [20]. Sameera Shaik, **Suresh Kumar Tummala**, **D Srinivasa Rao**, "Control Techniques for the Cascaded and Cross-switched Multilevel Inverter A Comparison", E3S Web of Conferences 309, 01120, ICMED 2021.
- [21]. Sandhya Rani G, Vijaya Laxmi U, Srividya Devi P, Naga Sandhya Rani, "Remote Monitoring and Control for an Isolate Prototype Substation Model", E3S Web of Conferences 309, 01121, ICMED 2021.
- [22]. Maheeth P V S, **Srividya Devi P**, Sirisha P," Artificial Intelligent Technique based Double-Frequency Analysis on a Single-Phase Grid-connected Inverter", E3S Web of Conferences 309, 01144, 2021.
- [23]. **Vinay Kumar Awaar**, Rajshri Simhadri, Venkatesh Chityala, and **Praveen Jugge**, "DSP Based Testing Platform for Characterization of BLDC motor performance using TMS320F28069", E3S Web of Conferences 309, 01145, 2021.

- [24]. J Pravalika, **B Pakkiraiah**, and **M Rekha**, "Improved Performance of an Asynchronous Motor Drive with a New Modified Incremental Conductance based MPPT Controller", E3S Web of Conferences 309, 01183, 2021.
- [25]. More Anusha, **Dola Gobinda Padhan**, and **D. Karuna Kumar**, "A Fuzzy Controlled LCC HVDC System with AC Voltage and Reactive Power Control", E3S Web of Conferences 309, 01190, 2021.
- [26]. Duvvuru Sravya, **Phaneendra Babu Bobba**, and Avni Majawadia Jain, "Design and Development of Wireless power transfer system for Intracranial pressure monitoring devices", E3S Web of Conferences 309, 01198, 2021.
- [27]. **DSNM Rao**, Chiranjeevi Anil Kumar Tulluri, Bharath Kumar Narukullapati, Haqqani Arshad, and Raju MV, "A Nonconvex Constrained based Optimal Load Scheduling of Generators with Multiple Fuels using meta-heuristic Algorithms", International Conference on Computing, Communication and Green Engineering (CCGE) JSPM's RSCOE, Pune, India. Sep 23-25, 2021.
- [28]. M.Vasu, D. Lenine, J. Surya Kumari, **T. Suresh Kumar**, "Design and Analysis of Controller with Selective Harmonic Compensator for Grid Connected PV System", E3S Web of Conferences 309, 01009, ICMED 2021.
- [29]. Veena Trivedi, Padmalaya Nayak, **D. G. Padhan**, and Neeraj Mohan, "Performance Enhancement of AODV Routing Protocol for MANET Using Genetic Algorithm", Second IEEE International Conference on Electronics and Sustainable Communication Systems (ICESC) 2021.
- [30]. A. Sanjana, K. Sree Amrutha Valli, Ch. Adarsh, M. Sai Hrithik Reddy, V. Usha Rani, J Sridevi "Embedded System Based Smart Wheelchair for Physically Challenged People", E3S Web of Conferences 309, 01122, ICMED 2021
- [31]. **Dogga Raveendhra**, **M Prashanth**, **K Sudha**, "Effects of Common Mode Voltage in ZSI based Induction Motor Drive for EV applications", Third International Conference on Machine Learning, Advances in computing, Reneable Energy and Communication, 10-11 December 2021.
- [32]. **Dogga Raveendhra**, **K Sudha**, **M Prashanth**, "Single Stage Power Conditioning Unit for Battery Assisted, Solar Powered Remote Area Power Supply", Third International Conference on Machine Learning, Advances in computing, Reneable Energy and Communication, 10-11 December 2021.

Books Chapters (SCOPUS):

- [1] Padmalaya Nayak, G. K. Swetha, Priyanka Kaushal, and **D. G. Padhan**, "Cluster Formation Algorithm in WSNs to Optimize the Energy Consumption Using Self-Organizing Map", IoT and Analytics for Sensors Networks, Lecture Notes in Networks and Systems, Springer, ISBN 978-981-16-2918-1, 2022
- [2] **Dr. Suresh Kumar Tummala**, **Dr. Phaneendra Babu Bobba**, Dr. Satyanarayana Kosaraju, "Characterization of Bifacial Passivated Emitter and Rear Contact Solar Cell", Next Generation Smart Grids: Modeling, Control and Optimization, Lecture Notes in Electrical Engineering, Springer, February 2022.

- [3] **A Vinay Kumar**, **J Praveen** and S Tara Kalyani, "An improvised control methodology for voltage sag mitigation, harmonics reduction with a dynamic voltage restorer to improve power quality: Considering fast-operating DSP", Intelligent and Reliable Engineering Systems, CRC Press, Taylor & Francis, First edition 2022.
- [4] **V. Vijaya Rama Raju** and **J. Praveen**, "Real-Time Solar Energy Monitoring Using Internet of Things", IoT Applications, Security Threats and Countermeasures, CRC Press, Taylor & Francis, First edition 2022.
- [5] Gireesh Kumar Devineni, Aman Ganesh, Neerudi Bhoopal and DSNM Rao, "THD Optimization with Low Switching Frequency Control for 15-Level Reduced Switch Asymmetric Multilevel Inverter", Springer, ISBN 978-981-16-4942-4, 22 November 2021

Text Books:

- [1] Bharath Kumar N, Uma Maheswara Rao M, **D S N M Rao**, Idamakanti Kasireddy, **Ravi Kanth Padmanabhuni**, "Recent Trends in Renewable Energy with Power Electronics", Xpress Publications, 2022.
- [2] **D S N M Rao**, T. Ch. Anil Kumar, P. M. Venkatesh, B. Mouli Chandra and B. Venkata Prasanth, "Measurement and Instrumentation: Theory and Application", Xpress Publications, 2022.