



**Dr. VISWAPRAKASH BABU**

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**Area of research:** Power Quality

**Education:**

Course/ Degree	Institute	Year of Passing	University % of Marks
Ph. D. (Power Quality)	B.S. Abdur Rahaman Crescent University, Chennai, Tamilnadu,	August 2023	B.S. Abdur Rahaman Crescent University . CGPA 8.5
M.Tech. (Industrial Engineering and Management)	JBLET, Yenkapalle, Hyderabad, Telangana.	February 2009	JNTU, Hyderabad 73 %
B.Tech. (Electrical and Electronics Engineering)	Sri Sai Jyothi (SSJ) Engineering College. Hyderabad, Telangana..	April 2002	JNTU, Hyderabad 54.55%
Intermediate	Somanadri Junior College, Jogulamba Gadwal, Telangana.	September 1998	Inter State Board 53.1 %
S.S.C.	Zilla Parishadh High School(ZPHS), Ieeja, Jogulamba Gadwal, Telangana.	March 1996	SSC State board 75 %

**Awards and Honours:**

1. Received Award from Telangana Academy for skill and knowledge(TASK) in the year 2016 on behalf of the college.
2. Received Award with prestigious "Global teacher award 2021" by AKS education awards in the year 2021
3. Received Young Researcher Award 2023 by Institute of Scholars(InSc) in the year 2023.

### **PhD Details:**

**Title of the Thesis:** Optimal Controllers for Voltage Sag Compensation Using Solar Fed Dynamic Voltage Restorer System.

**Area of the Thesis:** Power Quality.

**Name of the guide:** Dr.K. Shafeeque Ahmed

### **Publications Statistics:**

	SCI	SCOPUS	IEEE/ INTERNATIONAL CONFERENCES	UGC CARE	PATENTS PUBLISHED/ GRANTS	BOOKS/ MONOGRAPHS
No.of Publicatins	3	9	5	6	7	3

## **RESEARCH ACTIVITIES**

### **JOURNAL PUBLICATIONS:**

#### **SCI Indexed Publications**

1. Viswaprakash Babu, K. Kanchana, Sridhar Gaddam, Vasudeva Naidu Pudi, “ Advancing microgrid power quality: integration of GRU- based control in PV-UPQC systems”, Published in Electrical Engineering Journal (Springer-SCIE Indexed) (Impact Factor: 1.7, Q1 Journal),Volume-107, pages 223-248(2025), 12<sup>th</sup> June 2024 (Digital Object Identifier <https://doi.org/10.1007/s00202-024-02517-2>).
2. Viswaprakash Babu, K. Shafeeque Ahmed, Y.Mohamed Shuaib, Manikandan M, “Power Quality Enhancement using Dynamic Voltage Restorer(DVR) Based Predictive Space Vector Transformation (PSVT) with Proportional Resonant (PR)-controller”, Published in IEEE Access (IEEE – SCIE Indexed) (Impact Factor: 4.8, Q1 Journal),Volume-9, November2021 (Digital Object Identifier 10.1109/ACCESS.2021.3129096).
3. Viswaprakash Babu, K. Shafeeque Ahmed, Y.Mohamed Shuaib, Manikandan M, "A Novel Intrinsic Space Vector Transformation based Solar Fed Dynamic Voltage Restorer for Power Quality Improvement in Distribution System", Journal of Ambient Intelligence and Humanized Computing, (Springer – SCIE Indexed) (Impact Factor: 7.104, Q1 Journal) Jan-2021. (<https://doi.org/10.1007/s12652-020-02831-0>).

### **SCOPUS Indexed Publications**

4. Viswaprakash Babu, S. SathikBasha, Y. Mohamed Shuaib, M. Manikandan , And Syed Enayathali, "An Novel Integration of Solar Fed Dynamic Voltage Restorer for Compensating Sag and Swell Voltage in Distribution System Using Enhanced Space Vector PWM (ESVPWM)"Universal Journal of Electrical and Electronic Engineering(IJEEE), Volume-6, Issue.5, 2019, .pp. 329 – 350. ( Indexed: SCOPUS, Impact factor: 0.44, Q4 Journal).
5. Viswaprakash Babu, K. Shafeeque Ahmed, Y.Mohamed Shuaib, Manikandan M, S.Sathik Basha, "Voltage Sag/Swell Compensation Using Solar Photovoltaic Inverter based Dynamic Voltage Restorer (SPVI-DVR)", Journal of Green Engineering (JGE), Volume-10, Issue-9, September 2020, pp. 7102-7114. (SCOPUS Indexed) (Impact Factor: 1.0) (Impact factor: 0.55, Q3 Journal).
6. Viswaprakash Babu, K. Shafeeque Ahmed, Y.Mohamed Shuaib, Manikandan M, S.Sathik Basha, "Cascaded Fuzzy Logic Control of PV Fed DVR for Power Distribution Systems", Design Engineering , Volume-2021, Issue-8, November 2021, pp. 8890-8900. (SCOPUS Indexed) (Impact Factor: 1.4, Q3 Journal).
7. Viswaprakash Babu, Macha Sathwik, Pashikanti Sumithkumar, Mohammad Sohail Ahmed,,Akkaldevi Manusha,"Power Distortion Improvement Using D-Statcom", High Technology letters (HTL), ISSN: 1006-6748, Volume-28, Issue-1, January 2022. <https://doi.org/10.37896/HTL28.01/5019> .
8. Viswaprakash Babu, A Alekhya, M Premkumar, P Pruthviraj, G Madhu, "Power Quality Enhancement Using A Fyzy Logic Controller Based Dynamic Voltage Restorer" , High Technology letters (HTL), ISSN: 1006-6748, Volume-28, Issue-1, January 2022. <https://doi.org/10.37896/HTL28.01/5066>.
9. Viswaprakash Babu, A Prasanna, S Vijay, A Anjali, P Santhosh " PV Fed Cascaded Multilevel Inverter For Improvement Of Power Quality By Using Adaptive Neuro Fuzzy Inference System Contoller", Semiconductor Optoelectronics, ISSN: 1001-5868, Volume-41, Issue-12, December 2022.
10. Viswaprakash Babu, Dr. Srinivas Dava, Dr. Srinivas Konda, Dr. Kavitha Rani Balmuri "Identity The Extract Brain Tumor Volume Using Edge Detection Algorithm Uing Deep Learning Models", Journal of Data Acquisition and Processing, ISSN: 1004-9037, Volume-36, Issue-6, December 2021. DOI: 10.5281/zenodo.7749944.
11. Viswaprakash Babu, Dr. Srinivas Dava, Dr. Srinivas Konda, Dr. Kavitha Rani Balmuri "A New Architecture Based Appoach For Improving Software Performance", NeuroQuantology, eISSN: 1303-5150, Volume-20, Issue-22, December 2022. doi: 10.48047/nq.2022.20.22.NQ10204

12. Viswaprakash Babu, Dr. Srinivas Dava, Dr. Srinivas Konda, Dr. Kavitha Rani Balmuri  
“Secure Cloud Storage Using Blockchain For Decentralized System With Merkle Tree Algorithm”, YMER, ISSN: 0044-0477, Volume-21, Issue-12, December 2022.

#### **IEEE Conference (Scopus Indexed)**

13. Vishwaprakash Babu, Banothu Raju, Saidulu Valampatla, M.Venkateswarao “An Innovative Method for Electricity Load Forecasting in the Agriculture Sector using a Restricted Boltzmann Machine (RBM) Model”, Proceedings of the International conference on IoT based control networks and Intelligent systems (ICICNIS-2024), IEEE Xplore Part number: CFP242B2-ART: Electronic ISBN: 979-8-3315-1809-7, Print ISBN: 979-8-3315-1810-3, 10<sup>th</sup> January 2025.  
(DOI: <https://doi.org/10.1109/ICICNIS64247.2024.10823265>).  
Link: <https://ieeexplore.ieee.org/document/10823265>

#### **International Conferences.**

14. Dr. M. Manikandan and Vishwaprakash Babu, “Total Harmonic Distortion Reduction for Power Quality Improvement: A Review”, International Journal of Science and Research (IJSR), ISSN (Online): 2319-7064, Index Copernicus Value (2015): 78.96 , Impact Factor (2015): 6.391, Volume-6, Issue-7, July 2017.
15. Viswaprakash Babu, S. SathikBasha, Y. Mohamed Shuaib, R.Srinu, “An Integrated Dynamic Voltage Restorer-Ultra Capacitor Design For Improving Power Quality” Journal of Emerging Technologies and Innovative Research (JETIR) Vol.6, Issue.3, (ISSN-2349-5162), March 2019. ( International conference paper ) .
16. Viswaprakash Babu, J.Emmanuel, “Performance And Analysis of A Novel Modular Multilevel Switched Capacitor Units”, International Conference on Recent Innovations In IEngineering and Tchnology (ICRIEAT-2017) Organized by Arurora’s Scientific, Technological and Research Academy, Hyderabad. December 2017. ( International conference paper ) .

17. Vikram Kulkarni and Vishwaprakash Babu “Embedded smart car security system on face detection”, International journal of Computer and communication Technology.(IJCTT), ISSN (online):2231-0371, ISSN (print):0975-7449, Volume-5, Issue-3, Article 5, July 2014. DOI: 10.47893/IJCTT.2014.1240. Available at <https://www.interscience.in/ijctt/vol5/iss3/5>

### **UGC Care Publications**

18. Viswaprakash Babu, A Prasanna, S Vijay, A Anjali, P Santhosh “ Wireless Power Transfer Circuit For e-Bike Battery Charging”, International Journal For Advanced Research In Science & Technology(IJARST)”, ISSN: 2457-0362, Volume-12, Issue-12, December 2022.
19. Viswaprakash Babu, K Sandeep Rao, “ Advanced Modulation Strategies For Common Mode Voltage Reduction For a Grid Connected Multilevel Converter”, International Journal of Professional Engineering Studies”, ISSN(O): 2395-4396 Volume-IV, Issue-2, October 2014. UGC Care Approved Journal.
20. Viswaprakash Babu, A Rajitha, “ Mitigation of Power Quality of Issues Using UPQC” , International Journal of Advance Research and Innovative Ideas in Education, ISSN(O): 2395-4396 Volume-2, Issue-5, 2016. DOI: 16.0415/IJARIIIE-3187. UGC Care Approved Group-II Journal.
21. Viswaprakash Babu, Chinthala Swapna, Kunkumalla Sravani, Gunda Sangeetha, Kanikireddy Rakesh, “High Frequency AC Power Distribution System with Switched Capacitor-Based 13L Inverter Topology” , Journal of Interdisciplinary Cycle Research, Volume-XIII, Issue-XII, December 2021. UGC Care Approved Group-II Journal.
22. Viswaprakash Babu, A Alekhya, M Premkumar, P Pruthviraj, G Madhu, “Controlling of DVR Under Severe Sag and Swell Conditions by Modified DQ Method”, Journal of Emerging Technologies and Innovative Research (JETIR), ISSN: 2349-5162, Volume-9, Issue-6, June 2022. UGC, ISSN Approved Journal number: 63975.
23. Viswaprakash Babu, Chinthala Swapna, Kunkumalla Sravani, Gunda Sangeetha, Kanikireddy Rakesh, “Power Quality Improvement By Solar Fed Cascaded Multilevel Inverter With Fuzzy Logic Based Controller”, Journal of Emerging Technologies and Innovative Research (JETIR), ISSN: 2349-5162, Volume-9, Issue-6, June 2022. UGC, ISSN Approved Journal number: 63975.

### **Patent Grant**

1. Dr.Bendi Venkata Ramana, Vishwaprakash Babu, Saidulu Valampatla ,Banothu Raju, et al. “Advanced Solar Power Quality Monitoring System with IoT and real-Time Control”, Design Application number is 6406433, filing date is 22/11/2024 and Grant date is 02 January 2025.
2. Vishwaprakash Babu, Banothu Raju, Saidulu Valampatla, M.Venkateswarao, et al. “Renewable Energy Powered Poles to Detect Noise Pollution”, Design Application number is 439165-001, filing date is 01/12/2024 .

### **Patent Publications**

3. Vishwaprakash Babu, Banothu Raju, Saidulu Valampatla, M.Venkateswarao et al. “Machine learning driven adaptive energy management for solar IoT node using evolutionary fuzzy rules ”, Application number is 202441075652 and published date is 18/10/2024.
4. Vishwaprakash Babu, Banothu Raju, Saidulu Valampatla, M.Venkateswarao et al. “Leveraging AI for dynamic and adaptive control to maximize efficiency in solar power generation”, Application number is 202441088695 and published date is 22/11/2024.
5. Vishwaprakash Babu, Banothu Raju, Saidulu Valampatla, et al. “ AI-Driven embedded IoT System for Predicting failures in Industrial pumps”, Application number is 202441100178 and published date is 17/12/2024.
6. Viswaprakash Babu, K. Shafeeque Ahmed, Y.Mohamed Shuaib, Manikandan M, PATENT Published on “A Novel Intrinsic Space Vector Transformation based Solar Fed Dynamic Voltage Restorer for Power Quality Improvement in Distribution System” Application number is 202041015211 and published date is 22/5/2020.
7. Viswaprakash Babu, Dr. R.Jegadeesan, Dr. VK Senthil Ragavan, Dr. M Babu, Dr. M Manikandan,, PATENT Published on “IOT Enabled Calorie Counter Wristwatch” Application number is 2020410130037 and published date is 31/7/2020.

### **Monograph/ Book Published**

S.No	Name of the book	Authors	Publication	Year of Publication	Online/ DOI number
01	Enhancement of PQ on Wind Generation System by SMES Coil	Dr.M.Manikandan & Viswaprakash Babu,	LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany	April 2018	978-613-9-82615-5

02	Smart and IoT Based Intelligent Monitoring of DFIG Generator System for WECS.	Viswaprakash Babu, etal.	IIP Book Series "IIPV3EBS08_G7 Futuristic Trends in IOT" Volume 3, 2023	Publish ed on Dec-2023	ID is "E19S8G7-14AUPP5"
03	Electric and hybrid Vehicles: Design Fundamentals	Viswaprakash Babu, etal.	RK Publishers	Publish ed on April-2025	ISBN:978-93-48655-07-03

