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# **Dr. SHARMEELA CHENNIAPPAN**

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**Professor**

Department of Electrical and Electronics Engineering

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**FUNDED RESEARCH PROJECTS**

1. “Energy Efficient Solar PV System for 100 Wp Domestic Applications”, Funded by CTDT, Anna University, Chennai under Young Faculty Scheme, Funding Amount: **Rs. 1.5 Lakhs,** April 2011 – May 2013– **Completed - Investigator.**
2. **Completed as a Co-Investigator** for a Research Project on: “Design and Development of Magnetically Levitated Micro Vertical Axis Wind Mill for Power Generation in Low Velocity Regimes”, MNRE (Wind Energy Division), GOI, New Delhi, India, Funding Amount: **Rs. 5.08 Lakhs,** 2016-2018.
3. Electric Vehicle Technologies: Smart Material Characterization, Manufacturing And Grid Management - **P7:** “Monitoring and Analysis of Power Quality Issues on to the Distribution Network due to Electric Vehicle Infrastructure”, RUSA 2.0, GOTN, India, **Rs.256 Lakhs, Investigator – Ongoing.**
4. ”Smart Electric Vehicle Charging Station”, Research Promotion Scheme (RPS) by AICTE, New Delhi, India, 2020 – 2023, **Rs.17,21,569 – Investigator – Ongoing.**

**COMPLETED CONSULTANCY PROJECTS**

1. Arc Flash study, relay coordination and short circuit analysis for the client M/S DELL, Hyderabad, India, July 2014 - Completed the Total Consultancy for the Charges of Rs. 1.12 Lakhs.
2. Methodology and Calculation of Transposition of 400 kV Transmission Line, M/S L&T Construction Pvt. Ltd., Chennai, March 2020 - Completed the Total Consultancy for the Charges of Rs.1.18 Lakhs.
3. Proof Checking for MEP Service Design, Detailing and Drawing for Construction of 152 Quarters for Residential and Academic Campus for JIPMER, Karaikal - M/S The CPWD, Karaikal and M/S Renaatus Projects Pvt. Ltd., Chennai, India, August 2021 - Completed the Total Consultancy for the Charges of Rs.16.52 Lakhs.
4. Proof Checking of Developmental works and associated bulk service at our CPWD JIPMER Project, Karaikal” - M/S URC Construction Pvt. Ltd., Nungambakkam, Chennai, India, July 2022 - Completed the Total Consultancy for the Charges of Rs.21.54 Lakhs.
5. Construction of 18 No’s Type V and 18 No’s Type VI Multi-storey Residential Accommodation for Customs and Central Excise Department (CBIC) at Revenue Colony, No. 121, Uthamar Gandhi Road, Nungambakkam, Chennai-34, India – M/S The CPWD, Nungambakkam, Chennai, India and M/S TIRUPATI SARJAN Ltd., Ahmedabad - 380060, Gujarat, India, August 2022 - Completed the Total Consultancy for the Charges of Rs.7.08 Lakhs.
6. Expert Opinion on Patent Infringement (No. 397329) by Dehn for Jef Techno Solutions Private Limited, Bengaluru, Karnataka, India, April 2023 - Completed the Total Consultancy for the Charges of Rs.3.07 Lakhs at the Centre for Energy Storage Technologies (CEST), Anna University, Chennai.
7. Power Quality Study at Ferro Chrome Alloy Plant in Bhadrak, near Bhubaneswar, Odisha, India for M/S Vedanta and Ferro Alloys Corporation Ltd. (FACOR), D. P. Nagar, Randia, Bhadrak District, Odisha - 756135, India with M/S. QU Power Technologies, No.53, 5th Cross Main Road, II block, RT Nagar, Bangalore – 560032, Karnataka, India, 29th March 2023 - Completed the Total Consultancy for the Charges of Rs.0.59 Lakhs.
8. Power Quality Consultancy at CLRI Solar Power Plant in Vembakottai, Sivakasi, TamilNadu for M/S Waveforms, Chennai, TamilNadu, August 2023 - Completed the Total Consultancy for the Charges of Rs.8,850/- at the Centre for E-Vehicle Technologies (CEVT), Anna University, Chennai.
9. Expert Opinion on Patent Infringement (No. 397329) by Dehn’s RIT Test Methodology in Earthing Grid Assessment Report submitted to MSETCL, Borivalli for Jef Techno Solutions Private Limited, Bengaluru, Karnataka, India, September 2023 - Completed the Total Consultancy for the Charges of Rs.0.89 Lakhs at the Centre for E-Vehicle Technologies (CEVT), Anna University, Chennai.
10. Power Quality Assessment and Energy Audit in the Academic Institute for Dhanalakshmi College of Engineering, Tambaram, Chennai, TamilNadu, November 2023- Completed the Total Consultancy for the Charges of Rs.11,800/- at the Centre for E-Vehicle Technologies (CEVT), Anna University, Chennai.
11. Power Quality Assessment at 300 MW Solar Plant, Bikaner, Rajasthan, India for M/S Power Projects, TamilNadu, India, January 2024 - Completed the Total Consultancy for the Charges of Rs.1.08 Lakhs at the Centre for E-Vehicle Technologies (CEVT), Anna University, Chennai.

**HARMONIC CASE STUDIES AT THE FOLLOWING PLACES DURING AND AFTER THE RESEARCH PROGRAMME**

1. Harmonic Analysis at the various Uninterruptible Power Supply loads at TidelPark, Chennai was carried out under the supervision of Dr.M.R.Mohan and Dr. K.Udayakumar, Professor, DEEE, CEG, Anna University, India. Involved in the entire field measurements and survey of various harmonic levels at Tidel Park, Chennai during October –December, 2003.
2. Case Study on voltage flicker and harmonic mitigation in AC Electric Arc Furnace (M/S KCP Ltd., Chennai, India)
3. Case Study on harmonic pollution due to induction furnace (M/S Vikki Steels, Kummudipoondi, Chennai, India)
4. Case Study on harmonic pollution due to induction furnace (M/S Vaibhav industries, Madurai, TamilNadu, India)
5. Case Study on harmonic pollution due to AC Electric Arc Furnace (M/S Paul Industries, Tuticorin,TamilNadu, India)
6. Case Study on harmonic pollution due to AC Electric Arc Furnace (M/S Karthik Industries, Tuticorin,TamilNadu,India)
7. Case Study on harmonic pollution due to Uninterruptible Power Supply System (M/S Tidel Park, Chennai, India)
8. Energy audit and power quality study at processing industry (M/S Nila Sea Foods, Tuticorin, TamilNadu, India)
9. Power Quality Enhancement using Fuzzy Logic based Power Quality Conditioner
10. Line current harmonic suppression in single-phase circuits using wavelet techniques
11. Case Study on harmonic and inter-harmonic pollution due to welding machines at automotive plant (M/S Hwashin Automotive Private Ltd., Sriperambadur, Chennai, TamilNadu, India)
12. Case Study on harmonic pollution due to Uninterruptible Power Supply System (M/S Indian Bank, Chennai,India)
13. Design of Hybrid Filter for suppression of harmonic pollution due to 60 kVA Uninterruptible Power Supply System (M/S Power Grid Corporation of India Ltd, Kolkatta,India)
14. Power Quality Audit at the following Hotels in Tamilnadu: 1. GRT GRAND, T.Nagar, Chennai 2. GRT Temple Bay, Mamallapuram, Chennai 3. The Residency Towers, Pondy Bazaar, Chennai 4. The Residency, T.Nagar, Chennai 5. The Residency Towers, Coimbatore, India 6. The Radha Regent, Chennai.
15. Power Quality Audit at the Southern Railways, TamilNadu, India.
16. Evaluated the Load Flow study and Short Circuit study using ETAP 12.5 for 33/6.6kV substation and 33kV transmission line network of the project titled “MEGA LIFT IRRIGATION SCHEME for CLUSTER XIV”, Department of water resources, Govt. of Odisha, Bhubaneswar, India, Sep, 2014 with KNR Engineers India Pvt. Ltd, Chennai, India.
17. Feasibility study report prepared for a 2 MW Grid-Connected SPV system for Indian Institute of Management, Trichy, TamilNadu, India, June 2017.
18. Validation of the “Modeling and Analysis of Ten Circuit Five Tier Arrangement of 1000 sq.mm, 220 kV, XLPE cable system in Amaravathi project to ascertain the Extremely Low Frequency (ELF) – Electro-Magnetic Field (EMF) at ground level using ANSOFT – MAXWELL” and conclusive recommendations on limiting exposure as per ICNIRP guidelines for avoidance of adverse biological effects, for M/S. APTRANSCO and M/S. Amaravathi Development Board, March 2018 with KNR Engineers India Pvt. Ltd, Chennai, India and L&T, Chennai.
19. Technical Evaluation of the PRISM Proposal titled “Smart Energy Monitoring Device”, for the Department of Scientific and Industrial Research Promoting Innovations in Individuals, Start-Ups and MSME’s (PRISM), Chennai, India, August 2023.

**PUBLICATIONS**

**(i) DETAILS OF THE BOOK PUBLICATIONS**

**(A) Books authored/co-authored/co-edited**

1. P. Sanjeevikumar, C. Sharmeela, Jens Bo Holm-Nielsen and P. Sivaraman, “Power Quality in Modern Power Systems”, Elsevier publication, Academic Press, November 2020, Paperback ISBN: 9780128233467, eBook ISBN: 9780128234464, pg. 1 – 352.
2. C. Sharmeela, P. Sivaraman, P. Sanjeevikumar, and Jens Bo Holm-Nielsen, “Micro grid Technologies”, John Wiley-Scrivener publishing LLC, December 2020, ISBN: 978-1-119-71079-0, pg. 1- 350.
3. P. Sivaraman, C. Sharmeela, A.Thaiyal Nayagi and R. Mahendran,“ Basic Electrical and Instrumentation Engineering”, Scrivener-Wiley publication, 2020, ISBN: 1119764467, 9781119764465, pg. 1-360.
4. P. Sanjeevikumar, C. Sharmeela, P. Sivaraman, and Jens Bo Holm-Nielsen, “Residential Microgrids and Rural Electrifications”, Elsevier publication, Academic Press, June 2021, ISBN: 9780323901772.
5. P. Sanjeevikumar, C. Sharmeela, P. Sivaraman and Jens Bo Holm-Nielsen, “Artificial Intelligence-based Smart Power Systems”, Wiley-IEEE Press, December 2022, ISBN: 978-1-119-89398-1.
6. C. Sharmeela, P. Sanjeevikumar, P. Sivaraman and Meera Joseph, “IoT, Machine learning and Blockchain Technologies for Renewable Energy and Modern Hybrid Power Systems”. River Publishers, January 2023, ISBN 9788770227247.
7. P. Sivaraman, C. Sharmeela and P. Sanjeevikumar, “Fast Charging Infrastructure for Electric and Hybrid Electric Vehicles: Methods for Large Scale Penetration into Electric Distribution Networks”, Wiley-IEEE Press, July 2023, ISBN: 9781119987741.
8. C. Sharmeela, P. Sanjeevikumar and P.Sivaraman, ”Power Systems Operation with 100 % Renewable Energy Sources”, Academic Press, Elsevier Science publication, November 2023, ISBN: 044315578X, 9780443155789.
9. C. Sharmeela, P. Sivaraman and P. Sanjeevikumar, “Electric Circuit Analysis”, Scrivener-Wiley publication, 2024 (in progress).

**(B) Book Chapters authored/co-authored/co-edited**

1. P. Sivaraman and C. Sharmeela, Chapter – 1: “IoT based Battery Management System for Hybrid Electric Vehicle”, Artificial Intelligent Techniques for Electric and Hybrid Electric Vehicles, Scrivener-Wiley publication, ISBN: 978-1-119-68190-8, September 2020.
2. P. Sivaraman and C. Sharmeela, Chapter – 10: “Solar Micro-Inverter”, Handbook of Research on Recent Developments in Electrical and Mechanical Engineering, IGI Global Publication, pp.283-303, Sept 2019, pg. 553, ISBN13: 9781799801177, ISBN10: 1799801179, EISBN13: 9781799801184, DOI: 10.4018/978-1-7998-0117-7.
3. P. Sivaraman and C. Sharmeela, Chapter – 1: “Introduction to Electric Distribution System”, Handbook of Research on New Solutions and Technologies in Electrical Distribution Networks, IGI Global Publication, Dec 2019, pg. 439, ISBN13: 9781799812302,ISBN10: 1799812308, EISBN13: 9781799812326, ISBN13 Soft cover: 9781799812319.
4. P. Sivaraman and C. Sharmeela, Chapter – 2: “Existing Issues associated with Electric Distribution System”, Handbook of Research on New Solutions and Technologies in Electrical Distribution Networks, IGI Global Publication, Dec 2019, pg. 439, ISBN13: 9781799812302,ISBN10: 1799812308, EISBN13: 9781799812326, ISBN13 Soft cover: 9781799812319.
5. P. Sivaraman, C. Sharmeela and S. Logesh Kumar, “Charging Infrastructure Layout and Planning for Plug-in-Electric Vehicles”, in the book titled: "Cable Based and Wireless Charging Systems for Electric Vehicles: Technology, Control, Management & Grid Integration" to be published by The Institution of Engineering and Technology (IET), United Kingdom, 2020.
6. P. Sivaraman and C. Sharmeela,” “Chapter – 1: Power Quality and its Characteristics”, “Chapter – 2: Power System Harmonics” and “Chapter – 5: Power Quality Problems associated with Electric Vehicle Charging Infrastructure”, “Power quality in modern power systems”, Elsevier publication, November 2020, ISBN: 9780128233467, 012823346X, pg. 1 – 310.
7. P. Sivaraman and C. Sharmeela,” “Chapter – 7: Load Flow Analysis for Microgrid”,“Micro grid Technologies”, Scrivener-Wiley publication, December 2020,ISBN: 978-1-119-71079-0, pg. 1- 350, ISBN 9781119710790.
8. C. Sharmeela and R. Sandhya, “Chapter – 18: Microgrid Communications”, “Micro grid Technologies”, Scrivener-Wiley publication, December 2020, ISBN: 978-1-119-71079-0, pg. 1- 350, ISBN 9781119710790.
9. R. Zahira, D. Lakshmi, G. Ezhilarasi, P. Sivaraman, C. N. Ravi and C. Sharmeela, “Chapter – 6: Standalone Micro Grid Concept for Rural Electrification - A review”, “Residential Micro grids and Rural Electrifications”, Elsevier publication, Academic Press, June 2021.

**(ii) PUBLISHED IN PEER REVIEWED INDEXED JOURNALS**

1. S.A.Grace, D.MohanLal and C.Sharmeela, “Demand Controlled Systems with fuzzy controllers to maintain indoor air quality - An Energy Saving Approach, International Journal of Ventilation, Volume 3, No 1, pp.79-86, January 2004, ISSN : 1473-3315, (IF: 0.86)
2. C.Sharmeela, M.R.Mohan and G.Uma, “A Novel detection and classification algorithm for power quality disturbances using wavelets", American Journal of Applied Sciences, Volume 3 Issue 10, pp. 2049-2053, March 2006, ISSN : 1546-9239,(IF: 0.64)
3. C.Sharmeela, M.R.Mohan, G.Uma and J. Baskaran, “Fuzzy Logic Controller based three phase shunt active filter for line harmonics reduction", Journal of Computer Science, Volume 3, Issue 2, pp.76-80, March 2007, ISSN : 1549-3636, (IF: 0.69)
4. C.Sharmeela and M.R.Mohan, “Voltage Sag and Swell Mitigation using Multi – Level Inverter based Custom Power Conditioners”, International Journal of Power and Energy Systems, ACTA PRESS, Volume 28, No 4, pp. 384 - 393, November 2008, ISSN : 1078-3466, (IF: 0.29)
5. S. Hari, C. Sharmeela and M. Venkata Ramanan, “Design, development and simulation of A universal harmonic filter circuit for Improving power quality in sugar mills”, International Journal of Integrated Energy Systems, Vol. 1, No. 2, pp. 175-181, July-December 2009.
6. N.SenthilMurugan, C.Sharmeela, and K.Saravanan, “Design of soft switching converter with Digital Signal Processor based MPPT for Solar Hybrid Applications”, ACEEE International Journal on Control System and Instrumentation, Vol.1, No.1, pp. 12-15, July 2010, ISSN: 2158-0006(IF: Pending-2014)
7. N.SenthilMurugan, C.Sharmeela, and K.Saravanan, “Modeling of Photo Voltaic Arrays with Soft Switching Converter Design and Simulation for Maximum Power Point Tracking”, International Journal of Computer Applications, Vol.8, No.13, pp. 43-49, October 2010.(IF: 0.835)
8. K.Elango, S.R.Paranjothi and C.Sharmeela, “Transmission Congestion Management in Restructured Power Systems by Generation Rescheduling and Load Shedding using Rule Based OPF”, European Journal of Scientific Research, Vol.57, No.3, 2011, pp.380-390,ISSN : 1450-216X,(IF: 0.710)
9. R.Thenmozhi, C.Sharmeela, P.Natarajan and R.Velraj, “Transient Thermal Management Comparison of a Microprocessor Using PCMs in Various Configurations”, Journal of Thermal Science, Springer, Vol.20, No.6, November 2011, pp.516-520, (IF: 1.460)
10. N.Amuthan, P.Melba Mary, P.Subburaj and C. Sharmeela, “Ride Through and Direct Model Reference Adaptive Internal Modal Controller with Rule based Adjustment Mechanism for DFIG Wind Farms”, International Journal of Sustainable Energy, Taylor & Francis, Volume 31, Issue 4, pp.229-250,May 2011, ISSN 1478 6451 (IF: 1.33)
11. V. Punitha, C.Sharmeela, G. Kumaresan and Krishna Rao Vutukuru, “Comparative Study of Converters using MPPT Algorithms for a Stand Alone Solar PV System”, CiiT International Journal of Programmable Device Circuits and Systems, Vol.4, No.9, 2012, pp.466-469, ISSN: 0974-973x (IF: 0.492)
12. M. Ilayabharathi, G.Kumaresan and C.Sharmeela, “Design and Implementation of single axis solar tracking system”, CiiT International Journal of Programmable Device Circuits and Systems, Vol.4, No.9, 2012, pp.470-473, ISSN: 0974-973x(IF: 0.492)
13. SmileeMathuram and C.Sharmeela, “A framework for zig-bee based power line monitoring system”, International Journal of Embedded Systems and Computer Engineering, Vol.4, No.1, 2012, pp.29-42.
14. N.Gunavardhini, C.Sharmeela and M.Chandrasekaran, ”A Study on Power Quality Compensation in Railway Traction”, International Journal of Engineering Research and Applications (IJERA), Vol.10, No.5, 2013, pp.816-820, ISSN: 2248-9622.(IF: 1.69)
15. K. Saravanan, C. Sharmeela, "An Intelligent Reconfiguration Technique for enhancing the power from Photovoltaic Module in Partially Shaded Environments," Int. J. of Power and Energy Conversion, Vol. 7, No. 2, pp. 178 – 190, May 2016, Listed in UGC journal, ISSN : 1757-1154, IF : 0.11.
16. K. Saravanan, C. Sharmeela, "Low cost Dynamic Switching Technique For Improving The Power In Partially Shaded Photo Voltaic Array," International Journal of Control and Automation, Vol. 9, No. 2, pp. 61-70, March 2016 - Listed in UGC journal –ISSN : 2005-4297, I.F : 0.33
17. K. Saravanan, C.Sharmeela, "Energy Conservation in Paint Circulating Pumps Using Solar Power in Automotive Industries," International Journal of Applied Engineering Research Vol. 10, No. 4, pp. 3746-3750, 2015, ISSN : 0973-4562.
18. K. Saravanan, C.Sharmeela, “A Simple and Cost Effective Perturb and Observe Aided MPPT Algorithm for PV System Under Rapidly Varying Irradiance”, Vol. 37, No. 9, 2016 , International Journal of Control Theory and Applications , IJCTA - Listed in UGC journal, ISSN: 0974-5572, International Science Press, Serials Publications Pvt. Ltd., pp. 961-969.
19. SmileeMathuram, C.Sharmeela, 2016, ‘Linear Programmable Load Balanced Data-Gathering inMultisink Wireless Sensor Network’, Asian Journal of Information Technology, Vol. 15, Issue 12, pp.1975-1982, ISSN : 1993-5994
20. SmileeMathuram and C.Sharmeela, 2012, ‘A Frame Work for Zigbee based Power Line Monitoring System’, International Journal of Embedded Systems and Computer Engineering - IJESC Journal, Vol. 4, No.1, pp. 29-42; (IF 5.611).
21. Thenmozhi R, Shameela C, Natarajan P and Velraj R, 2015, “An Efficient Bridgeless Isolated Interleaved Zeta Converter for LED Lamp Driver Application”, Research Journal of Applied Sciences, Engineering and Technology, Vol. 11, No. 10, pp. 1103-1113, July 2015, ISSN: 2040-7459, (Impact factor :0.654)
22. Thenmozhi R, Sharmeela C, Natarajan P and Velraj R, 2016, “Isolated AC/DC Offline High Power Factor Single-Switch LED Driver Using Fuzzy Logic Controller”, Middle-East Journal of Scientific Research, ISSN 1990-9233, pp. 90-94, (A-II)DOI: 5829/idosi.mejsr.2016.24. RIETMA115, Volume 24, 2016 (Impact factor 0.54/0.36), IDOSI Publications.
23. Thenmozhi R, Sharmeela C, Natarajan P and Velraj R, June 2016, “Fuzzy Logic Controller Based Bridgeless (BL) Isolated Interleaved Zeta Converter for LED Lamp Driver Application”, International Journal of Power Electronics and Drive System (IJPEDS), Vol. 7, Issue 2, pp. 509 – 520, ISSN : 2088 – 8694, Impact Factor:1.49.
24. Thenmozhi R, Sharmeela C, Natarajan P and Velraj R, ‘Zigbee Based Energy Efficient LED Lighting System’, Journal of Computational and Theoretical Nanoscience, January 2017, Vol. 14, No. 1, pp. 435 – 440, ISSN : 1546-1955, (Impact Factor:0.22)
25. Thenmozhi R, Sharmeela C, Natarajan P and Velraj R, 2016, ‘Energy efficient high power LED lighting system using Intelligent solar tracking for street light application’, International Journal of Emerging Technologies and Applications In Engineering, Technology and Sciences, Vol. 9, No. 1, ISSN : 0974-3588, pp. 68-72, (Impact Factor: 0.63)
26. P.Ramesh, C.Sharmeela, “FLC Based Closed Loop Control of MLI Fed Induction Motor Drive,” Journal of Computational and Theoretical Nanoscience**,** Vol.14, No.3, March 2017, pp.1259-1264, ISSN : 1546 – 1955, IF : 0.22
27. P.Ramesh, C.Sharmeela, “Nine Level MLI fed Single Phase Induction Motor Drive with Compressor Load Using Artificial Neural Network,” Journal of Electrical Engineering**,** ISSN, 1339-309X.
28. L. Anto Joseph Deeyoko, K.Balaji, S.Iniyan and C.Sharmeela, “Exergy, Economics and Pumping Power Analyses of Flat Plate Solar Water Heater using thermal Performance Enhancer in Absorber Tube”, Applied Thermal Engineering, Elsevier Publications**,** 154, pp. 726-737, March 2019, ISSN : 1359 – 4311, IF : 4.55
29. K.Gunalan and C.Sharmeela, “ Assessment of Low Voltage Ride Through for Doubly Fed Induction Generator based Grid Connected Wind Energy System using Improved Brain Emotional Learning based Intelligent Controller”, Journal Of Environmental Protection and Ecology, September 2019, pg. 1912-1922, Vol.20 Issue 4, ISSN: 1311-5065, (Impact Factor:0.74)
30. R. Sandhya, UmmaHabiba Hyder Ali and C. Sharmeela, “Compact Dual Mode X-band SIW band pass filter with Wide Spurious Suppression using Split Square Ring Slot Resonator”, Circuit World, Volume 46, Issue 4, September 2020, pp. 1 – 13, ISSN 0305-6120,DOI 10.1108/CW-08-2019-0094, (Impact Factor : 1.170)
31. S. Elango, G. Manavaalan, Ramakrishnan Krishnan, P. Sanjeevikumar, C. Sharmeela and Ahmet H. Ertas, “Genetic Algorithm based Reference Current Control Extraction based Shunt Active Power Filter”, International Transactions on Electrical Energy Systems, John – Wiley, Volume 31, Issue 1, January 2021, pp. 1 – 22, ISSN: 2050 – 7038, (Impact Factor: 1.314)
32. P.Thangavelu and C.Sharmeela, “A case study of Power System Restoration Problem using Quantum Inspired Differential Evolutionary Algorithm”, Journal of Electrical Engineering, Vol.21, No.1, March 2021, pp. 155 – 168.
33. P.L.Arunkumar, M.Ramasway and C.Sharmeela, “IOT based Multi-Modal Speed Controller for an Off-Road open port Electric Double Cab Vehicle”, International Journal of Engineering Trends and Technology”, Vol. 69, Issue 12, 2021, pp. 127-135, E- ISSN: 2231 – 5381, P – ISSN: 2349-0918 (Scopus Indexed).
34. D.Suryavarchasvi, G.Manavaalan, S.Elango, V.Manikandan, C.Sharmeela, S.Umashankar, Mahajan Sagar Bhaskar and Dhafer J.Almakhles, ”Robust Queen Bee Assisted Genetic Algorithm (QBCA) Optimized Fractional Order PID (FOPID) Controller for Not Necessarily Minimum Phase Power Converters”, IEEE Access, Vol. 9, 2021.
35. T.Eswara Rao, S.Elango, C.Sharmeela, A.Dhafer, S. Umashankar and M.S. Bhaskar, “Performance Improvement of Grid Interfaced Hybrid System using Distributed Power Flow Controller Optimization Techniques, IEEE Access, Vol. 10, 2022.
36. P.L.Arunkumar, M.Ramasway and C.Sharmeela, “IOT based Speed Control for an Industrial Electric Vehicle using ARM Core”, Ecological Engineering and Environmental Technology, Vol. 23, Issue 2, 2022, pp. 113 – 121, ISSN 2719 – 7050 (Scopus Indexed).
37. S.Suresh, R. Zahira, C.Sharmeela, S.Elango, S.Umashankar and P.Sanjeevikumar, “Efficient Multi-Phase Converter for E-Mobility”, World Electric Vehicle Journal, MDPI, Vol.13, 67, 2022, pp. 1-16.
38. Gobikannan K, Elango S, Gunasekaran S, Sharmeela C, “Five-Phase Induction Motor Drive-A Comprehensive Review”, Frontiers in Energy Research, Vol 11, 2023, doi:10.3389/fenrg.2023.1178169, Impact Factor 3.4.
39. Gobikannan K, Elango S, Gunasekaran S, Sharmeela C, “Environmental Protection through five phase supply and its drive system: A sustainable approach”, Journal of Environmental Protection and Ecology, 2023, Vol 24. Issue 7, pp. 2467-2479.

**(iii) INTERNATIONAL/NATIONAL CONFERENCES**

1. C.Sharmeela, G.Uma and M.R.Mohan, “Line Harmonic Reduction using Neural based controller for Shunt Active Power Filter”, **IEEE – TENCON 2003**, October14th – 17th, 2003, Indian Institute of Science, Bangalore, pp. 1554 – 1557, ISBN: 0780381629.
2. C.Sharmeela, G.Uma and M.R.Mohan, “Field Measurements of Harmonic Pollution in Uninterruptible power supply”, National Power Electronics Conference, **NPEC 2003**, **Indian Institute of Technology - Bombay**, October 16th – 17th,2003.
3. D.Mohanlal, Sweet Annie Grace and C.Sharmeela, Fuzzy Logic based Air-Conditioning System, International Conference on Healthy Buildings, **National University of Singapore**, December 2003.
4. C.Sharmeela, G.Uma, K.Karthikeyan and M.R.Mohan,“The D-STATCOM for Reducing the Effect of Voltage Sag and Swell ”, International Conference on Emerging Technology - 2003, Kalinga Institute of Industrial Technology, Bhubaneswar, Orissa, India, 19th – 21st December 2003.
5. C.Sharmeela, G.Uma, K.Karthikeyan and M.R.Mohan,“Reactive power and line harmonics compensation using neural based controller for shunt active power filter”, International Conference on Emerging Technology - 2003, Kalinga Institute of Industrial Technology, Bhubaneswar, Orissa, India, 19th – 21st December 2003.
6. C.Sharmeela, G.Uma, K.Karthikeyan and M.R.Mohan,“Power Quality Enhancement by Universal Custom Power Conditioner”, An international conference on Electric Supply industry in transition, Asian Institute of Technology, Thailand, 14th – 16th January 2004.
7. C.Sharmeela, G.Uma and M.R.Mohan,” Case study on field measurement of harmonics and harmonic suppression in AC EAF”, IEEE ICPS 2004, International conference on power systems- challenges to electric utilities in the new millennium, Kathmandu, Nepal, November 3rd-5th,2004.
8. C.Sharmeela, G.Uma and M.R.Mohan, “Three-level D-STATCOM for reducing the effect of voltage sag and swell”, IEEE-2004 Petroleum and Chemical Industry India Conference, India Habitat Centre, New Delhi, India, 11th - 12th November 2004.
9. C.Sharmeela, G.Uma, K.Karthikeyan and M.R.Mohan, “Voltage flicker analysis and mitigation - Case study in AC Electric Arc Furnace using PSCAD/EMTDC”, International Conference on Power System Technology – IEEE POWERCON 2004,Singapore, 21st – 24th November 2004, pp. 707 – 712, ISBN : 780386108.
10. C.Sharmeela, G.Uma, K.Karthikeyan and M.R.Mohan, “Multi-level Distribution STATCOM for reducing the effect of voltage sag and swell”, International Conference on Power System Technology - IEEE POWERCON 2004**,** Singapore, 21st – 24th November 2004, pp. 306 – 310, ISBN:780386108.
11. C.Sharmeela, G.Uma and M.R.Mohan, “Voltage flicker analysis and mitigation in AC Electric Arc Furnace using PSCAD/EMTDC”, NPSC 2004, National Power Systems Conference, IIT Madras, Chennai, 27th – 30th December 2004.
12. C.Sharmeela, G.Uma, K.Karthikeyan and M.R.Mohan, “Multi-level Distribution STATCOM and DVR for voltage sag and swell reduction”, NPSC 2004, National Power Systems Conference, IIT Madras, Chennai, 27th – 30th December 2004.
13. C.Sharmeela, G.Uma, S.Tamilselvan, E.Daniel and S.Veera Kumar “Line Harmonic reduction and power factor correction using fuzzy based Shunt Active Filter”,NPSC 2004, National Power Systems Conference, IIT Madras, Chennai, 27th – 30th December 2004.
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