

Faculty Profile



Dr.K.Kanchana, M.E., (Ph.D.)

Associate Professor– EEE

HIGHLIGHTS:

- Number of Journal Publications: 31
- h-Index: 4
- Patents Published: 4

PROFESSIONAL LINKS:

- Scopus ID: 56603159200
- Scopus Link: [Kanchana, K. - Scopus 56603159200](#)
- Google Scholar ID: [K.Kanchana - Google Scholar](#)
- Anna University Faculty ID: 2122731
- AICTE Faculty ID: 1-4521617454
- ResearchGate: [K Kanchana](#)
- Web of Science ID: IST-9329-2023
- LinkedIn: www.linkedin.com/in/kanchanakadirvel

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 20 years

AREA OF SPECIALIZATION:

- High Voltage Engineering
- Power Electronics
- Renewable Energy

JOURNAL PUBLICATIONS:

International Journals

1. **Kanchana, K.**, Babu, V., Gaddam, S., & Naidu Pudi, V. (2024). Advancing microgrid power quality: integration of GRU-based control in PV-UPQC systems. *Electrical Engineering*, 1-26.

2. Salau, A. O., **Kanchana, K.**, Anoop, K. J., Markus, E. D., & Braide, S. L. (2024). Suppression of over voltage in SiC-based inverter fed induction motor. *Australian Journal of Electrical and Electronics Engineering*, 21(1), 11-28.
3. **Kanchana, K.**, Kavitha, S., Anoop, K. J., & Chinthamani, B. (2024). Enhancing Skin Cancer Classification Using Efficient Net B0-B7 through Convolutional Neural Networks and Transfer Learning with Patient-Specific Data. *Asian Pacific Journal of Cancer Prevention: APJCP*, 25(5), 1795.
4. **Kanchana, K.**, Anoop, K. J., Vinod, V. P., & Kavitha, K. K. (2023). Effect of porous coffee ground biochar on EMI shielding effectiveness of coconut spathe rachilla long fibre-reinforced lightweight vinyl ester biocomposite. *Biomass Conversion and Biorefinery*, 1-10.
5. **Kadirvel, Kanchana.**, Kannadasan, R., Alsharif, M. H., & Geem, Z. W. (2023). Design and Modeling of Modified Interleaved Phase-Shifted Semi-Bridgeless Boost Converter for EV Battery Charging Applications. *Sustainability*, 15(3), 2712.
6. KJ, Anoop, and **Kanchana K.** "Characterization of electrical trees in Bakelite insulator by fractal analysis." *International Transactions on Electrical Energy Systems* 25.10 (2015): 2472-2481.
7. **Kanchana, K.**, and V. Rajini. "High frequency model of inverter fed induction motor drive for investigation of over voltage phenomena." *ARPN journal of Engineering and applied science* (2012).
8. **Kanchana, K.**, K. J. Anoop, and V. Rajini. 2020. "Experimental Investigation on the Distribution of Voltage at the Stator Winding." *International Journal of Advanced Science & Technology* 29 (9): 3458–3469.
9. **Kanchana, K.**, and V. Rajini. 2017. "Experimental Design of Low Loss Filter to Mitigate Overvoltage for Long Cable Fed Induction Motor Drive." *Journal of Electrical Engineering* 17 (1): 1–8. <http://jee.upt.ro/index.php/jee/article/view/WL1467130532W5772a2a448570>
10. Umapriya, M., **Kanchana, K.**, & Rajini, V. (2014). Design of Active Filter to Minimize the Effect of Long Cables On Inverter Fed Induction Motor. *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (An ISO 3297: 2007 Certified Organization)*, 3(2).
11. **Kanchana, K.**, Cheriyan, P., & Anoop, K. J. Automatic Lawn Mower using Green Energy Sources. *International Journal on Recent and Innovation Trends in Computing and Communication*, 5(7), 46-49.
12. Stephen, S. S., Sreedev, S., Mathew, A., **Kanchana, K.**, & KG, P. DESIGN & ANALYSIS OF 30 kW PHOTOVOLTAIC SYSTEM FOR MBC LIBRARY BUILDING IN KUTTIKANAM. In *National Conference on Recent Advances in Electrical and Electronics Engineering (NCREEE'19)* (p. 39).

13. Chacko, V., Alex, B., George, S. M., **Kanchana, K.**, & Sebastian, S. (2020). Semi-Humanoid robot for clinical assistance during covid 19. *Solid State Technology*, 5509-5516.
14. **Kanchana K.**,"Design of Automatic Street Cleaner with Renewable Energy Source" in *International Journal of Applied Engineering and Research*, March 2015.
15. **Kanchana K.**"Attack Detection and Localizing Adversaries in Wireless Networks" in *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering*, Vol. 3, Special Issue 2, April 2014.
16. **K.Kanchana**"A Power Quality Improved Bridgeless Converter System with ANFIS Controller" in *International Journal of Pure and Applied Mathematics (IJPAM)* in June 2018 Edition.
17. **K.Kanchana**"Design and Implementation of Micro Thermo Electric Generator for Bio Implantable Devices" in *International Journal of Pure and Applied Mathematics (IJPAM)* in June 2018 Edition.
18. **K.Kanchana**"A REVIEW ON WASTAGE MONITORING SYSTEM USING IOT", *International Journal of Pure and Applied Mathematics*, Volume 119 No. 15 2018, 2705-2712,
19. **K.Kanchana**" IOT BASED GARBAGE BOX MONITORING SYSTEM", *International Journal of Pure and Applied Mathematics*, Volume 119 No. 15 2018, 2705-2712,
20. **K.Kanchana**"A REVIEW ON IOT BASED POWER THEFT DETECTION" *Journal of Emerging Technologies and Innovative Research*, Vol. 6, Issue 5, May 2019.

International Conference

1. Rajini, V., **Kanchana, K.**, Gowrishree, V., & Udayakumar, K. (2004, November). Comparison of surface tracking in polymeric insulating materials. In *2004 International Conference on Power System Technology, 2004. PowerCon 2004.* (Vol. 2, pp. 1513-1517). IEEE.
2. Anand, L., Anoop, K. J., & **Kanchana, K.** (2017, September). Transformer protection using multifunctional relay. In *2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)* (pp. 2963-2967). IEEE.
3. Kumar, K. S., Sukesh, C. H., Anoop, K. J., & **Kanchana, K.** (2017, September). A review on power quality improvement using AC to DC converters. In *2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)* (pp. 2968-2974). IEEE.

4. Anoop, K. J., & **Kanchana, K.** (2017, September). Short term load forecasting using fuzzy logic control. In 2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI) (pp. 2983-2986). IEEE.
5. Malathi, M., **Kanchana, K.**, Chinthamani, B., Kavitha, S., Priya, R. K., & Sinthia, P. (2024, January). Elevator-Based Earth Tremor Sentinel Technique with MQTT Protocol. In *International Conference on Universal Threats in Expert Applications and Solutions* (pp. 67-77). Singapore: Springer Nature Singapore.
6. Kavitha, S., Karpaga Priya, R., Sinthia, P., Malathi, M., **Kanchana, K.**, & Chinthamani, B. (2024, January). Solar Panel Tracking with Battery-Assisted and Battery Charging Modes. In *International Conference on Universal Threats in Expert Applications and Solutions* (pp. 55-65). Singapore: Springer Nature Singapore.
7. Kavitha, S., Karpaga Priya, R., Sinthia, P., Malathi, M., **Kanchana, K.**, & Chinthamani, B. (2024, January). Solar Panel Tracking with Battery-Assisted and Battery Charging Modes. In *International Conference on Universal Threats in Expert Applications and Solutions* (pp. 55-65). Singapore: Springer Nature Singapore.
8. Karpaga Priya, R., Sinthia, P., Malathi, M., **Kanchana, K.**, Chinthamani, B., & Kavitha, S. (2024, March). Elimination of Harmonic Interference by Adopting a Shunt Active Filter Solution. In *International Conference On Emerging Trends In Expert Applications & Security* (pp. 43-57). Singapore: Springer Nature Singapore.
9. Chintamani, B., Kavitha, S., Karpaga Priya, R., Sinthia, P., Malathi, M., & **Kanchana, K.** (2024, March). Calibrator for High-Temperature Dry Block Using PID Controller. In *International Conference On Emerging Trends In Expert Applications & Security* (pp. 377-384). Singapore: Springer Nature Singapore.
10. **Kanchana, K.**, Chintamani, B., Kavitha, S., Priya, R. K., Sinthia, P., & Malathi, M. (2024, March). Robotics Arm Controller with Fuel Cell-Based Stepper Motor Drive Using Double-Ended Forward Converter. In *International Conference On Emerging Trends In Expert Applications & Security* (pp. 71-82). Singapore: Springer Nature Singapore.
11. **Kanchana, K.**, Moses Saveri, A., & Janarthanan, M. (2024, March). Bidirectional Resonant DC–DC Converter-Based G2V and V2G Systems for EV Application.

In *International Conference On Emerging Trends In Expert Applications & Security* (pp. 185-193). Singapore: Springer Nature Singapore.

PATENT Details

Published Date	APPL.NO	TITLE/REMARKS
17.03.2023	202341011107	A Novel Iot-Based Multi Head Food Extrusion Utility System
01.09.2023	202341050317	Portable Nano Grid Solar Power Supply System
29.03.2024	202441021552	Automated Hybrid Electric Storage System for Smart Car Manufacturing Unit
15.03.2024	202441015750	Futuristic Rotating Machine for Wind Power Generation

INVITED TALKS

- Shared my knowledge as a **RESOURCE PERSON** in the Two-Day workshop on “**Arduino and IoT**” organized by ISTE students chapter, MBCCET, Kuttikanam, Peermade on 12th and 13th October 2019.
- Shared my knowledge as a **RESOURCE PERSON** in the One-Day workshop on “**Introduction to MATLAB**” organized by the Department of EEE, MBCCET, Kuttikanam, Peermade on 24th January 2020.
- Shared my knowledge as a **RESOURCE PERSON** in the webinar on “**MATLAB (POWER ELECTRONICS)**” organized by **IEEE Industry Applications Society Chapter of IEEE Student Branch MBCCET** on 3rd May 2020.
- Shared my knowledge as a **RESOURCE PERSON** in the seminar on “**Introduction to Startup Fundamentals**” organized by **Institution’s innovation Council** on 26th April 2024.

NPTEL COURSES COMPLETED

- Programming in C (**Elite+Gold+topper 5%**)
- Python for Datascience (**Elite+Silver+topper 5%**)
- Electrical Machines 1
- Advances in UHV Transmission and Distribution (**Elite certificate**)
- Basic Electric Circuits
- Accreditation and Outcomes Based Learning (**Elite+Silver certificate**)
- NBA Accreditation and Teaching and Learning in Engineering(**Elite+Silver certificate**)

COURSES CERTIFIED:

- AICTE QIP PG certified Program on “**Artificial Intelligence and Data Science**” 3D from **Indian Institute of Information Technology Kottayam**, Kerala, June 2024 to December 2024

PROFESSIONAL MEMBERSHIPS:

- Indian Society for Technical education –Life Member, LM139543
- International Association of Engineers- Member Number: 165392
- IETE membership