

Faculty Profile



Dr.G.ROHINI, M.E., Ph.D.

Professor / Electrical and Electronics Engineering

HIGHLIGHTS:

- Number of Journal Publications: 14
- H-Index: 4
- i10 index: 2
- Patents Published: 4
- Patents Granted: 1

PROFESSIONAL LINKS:

- Scopus ID: 35071851400
- ORCID ID: [0000-0002-4344-7086](https://orcid.org/0000-0002-4344-7086)
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=35071851400>
- Google Scholar ID: EiRB8QsAAAAJ
- AICTE Faculty ID: 19319609171
- Anna University Supervisor ID: -
- LinkedIn:

PROFESSIONAL BACKGROUND:

- Teaching Experience :26
- Research Experience: 10

AREA OF SPECIALIZATION: Power Electronics & Drives , PV based systems, Electric Vehicles, IoT

ACADEMIC PROFILE

Qualification	Branch	Institution	Year of passing	Class obtained
Ph.D.	Electrical	Anna University, Chennai	2016	Highly Commended
M.E.	Power Electronics and Drives	College of Engineering, Guindy, Anna University, Chennai	2006	First Class
B.E.	Electrical and Electronics	Institute of Road and Transport Technology, Bharathiar University	1999	First Class

RESEARCH PUBLICATIONS :

A. INTERNATIONAL JOURNALS

1. Mariprasath, T, Marisargunam, S, G, Rohini, et.al .(2026) Thermally robust maximum power point tracking of proton exchange membrane fuel cells using hybrid Moth flame–Mayfly. *Energy Exploration & Exploitation* <https://doi.org/10.1177/01445987261491997>
2. Mariprasath, T., Marisargunam, S., Rohini, G., et al. (2026). An integrated high-gain boost converter and grasshopper optimization framework for fast global MPPT and high-efficiency solar PV under dynamic irradiance. *Energy Exploration & Exploitation*, 01445987261452267.
3. Marisargunam, S., Mariprasath, T., Bajaj, M., et al. (2026). A physics-constrained temporal modeling framework for robust short-term wind power forecasting. *Energy Exploration & Exploitation*. <https://doi.org/10.1177/01445987261480388>
4. Govindaraju, R., Mariprath, T., Abu Zneid, B., & Rubanenko, O. (2026). A high-gain isolated DC–DC converter for renewable energy and electric vehicle applications: Long-term field validation and machine-learning-assisted performance assessment. *Energy Exploration & Exploitation*, 1–27. <https://doi.org/10.1177/01445987261485337>
5. Rohini, G., Mariprath, T., Al Bustanji, S., & Zaitsev, I. (2026). A stacked Gradient Boosting–XGBoost ensemble with ridge meta-learner for accurate short-term solar PV power forecasting in smart grids. *Scientific Reports*, 16, 16871. <https://doi.org/10.1038/s41598-026-47042-3>
6. Rohini, G., Bhushan, Catherine, & Mohan, V. (2018). Design of DC to DC converters for electric vehicles. *International Journal of Scientific Research and Review*, 7(4), 325–328. DOI: 16.10089.IJSRR.2018.V7I04.3581.4961
7. Swarnarekha, G. N., Surya, M., & Rohini, G. (2018). Non-isolated bidirectional converter for hybrid energy system. *International Journal of Scientific Research and Review*, 7(4), 283–287. DOI: 16.10089.IJSRR.2018.V7I04.3581.4956
8. Rohini, G., Vaishnavi, S., Yogeswaran, B., & Surendra Kumar, K. (2018). High efficient DC to DC converter for portable device. *ARPN Journal of Engineering and Applied Sciences*, 13(11), 3765–3769. (Scopus indexed)
9. Rohini, G., & Jamuna, V. (2017). PV fed bidirectional converter for battery charging application. *Journal of Advanced Research in Dynamical and Control Systems*, 9, 645–660. (Scopus indexed)

10. Rohini, G., Jamuna, V., Cynthia Nancy, & Jenifer, A. (2016). Hybrid control strategy to enhance the performance of photovoltaic system. *Pakistan Journal of Biotechnology*, 12, 415–420. (Scopus indexed)
11. Rohini, G., & Jamuna, V. (2016). PLL based energy efficient system with fuzzy logic based power tracker for smart grid applications. *The Scientific World Journal* (Hindawi), 2016, 1–12. (Scopus indexed)
12. Rohini, G., Jamuna, V., & Manikandan, A. (2015). PV array fed interleaved buck boost converter. *International Journal of Applied Engineering Research*, 10(42), 30899–30902. (Scopus indexed)
13. Rohini, G., Jamuna, V., & Priyadarsini, D. (2014). Photovoltaic array under partial shading condition, for irrigation. *Applied Mechanics and Materials*, 622, 141–145.
14. Rohini, G., Jamuna, V., Abirami, M., & Ramprakash, R. (2013). Modeling of photovoltaic array and simulation of MPPT algorithm. *Advanced Materials Research*, 768, 23–28. Trans Tech Publications, Switzerland.

B. NATIONAL JOURNAL

1. Rohini, G., & Ali, A. J. S. (2015). Buck boost inverter based PV power generation systems. *Indian Journal of Science and Technology*, 8(32).

C. INTERNATIONAL CONFERENCES

1. Sujatha, K., Rohini, G., Devi, G. D., Ponmagal, R. S., & Bhuvaneshwari, S. (2025). IOSE for real time monitoring of combustion flames (RMCF). *Proceedings of the 5th International Conference on Recent Trends in Machine Learning*
2. Prameeladevi, C., Sujatha, K., Rohini, G., Tamilselvi, C., Janaki, N., et al. (2024). Smart drone for air quality monitoring and forecasting using intelligent systems for multi-purpose environment. *World Conference on Information Systems for Business Management*, pp. 553–564.
3. Rohini, G., et al. (2022). Setpoint tracking and disturbance rejection in automobile using predictive controller. *3rd International Conference on Smart Electronics and Communication (ICOSEC 2022)*, pp. 212–218. (Scopus indexed)
4. Kalaivani, K., Rohini, G., et al. (2022). A novel hyperparameter tuned deep learning model for content based image retrieval. *International Conference on Sustainable Computing and Data Communication Systems (ICSCDS 2022)*, pp. 207–213. (Scopus indexed)
5. Rohini, G., Janani, N. S., Monika, S., & Vimala, P. (2017). Four quadrant bi-directional DC/DC converter for electric vehicles. *International Conference on Emerging Trends in Science, Engineering and Technology*, Jerusalem College of Engineering, Chennai, pp. 73–78.
6. Lavanya, M., Ganesh, H., Abishag Cynthia, & Rohini, G. (2017). Solar wind hybrid system for rural applications. *International Conference on Emerging Trends in Science, Engineering and Technology*, Jerusalem College of Engineering, Chennai, pp. 68–72.
7. Rohini, G., & Jamuna, V. (2017). Hysteresis current controller based three stage interleaved converter for standalone PV system. *International Conference on Emerging Trends in Science, Engineering and Technology*, Jerusalem College of Engineering, Chennai.
8. Rohini, G., Bhagya, V., Daniel Prabhakaran, S. M., & Infancia, A. (2017). Two input DC-DC converter for HEV application. *International Conference on Emerging Trends in Science, Engineering and Technology*, Jerusalem College of Engineering, Chennai, pp. 178–182.
9. Rohini, G., Vaishnavi, S., Yogeshwaran, B., & Surendra Kumar, K. (2017). DC–DC converter with smooth mode transition for portable device. *International Conference on Emerging Trends in Science, Engineering and Technology*, Jerusalem College of Engineering, Chennai, pp. 202–207.

10. Rohini, G., & Jamuna, V. (2016). Bidirectional DC-DC converter based standalone PV system for battery charging applications. *International Conference on Communication and Control Engineering*, University College of Engineering, Villupuram, 29 December 2016.
11. Rohini, G., Jamuna, V., & Cynthia Nancy (2015). PV based energy efficient system comprising the effects of partial shading. *International Conference on Advances in Mechanical Engineering*, University College of Engineering, Villupuram, 15 October 2015.
12. Singh, A., Suganthi Mary, S., Rohini, G., & Jamuna, V. (2013). PV array fed SEPIC converter for irrigation system. *International Conference in Magna on Emerging Engineering Trends*, Chennai, pp. 229–233.
13. Abirami, M., Rohini, G., & Jamuna, V. (2013). High efficiency soft-switched interleaved boost converter with INC MPPT in PV systems. *International Conference on Computation of Power, Energy, Information and Communication*, Adhiparasakthi Engineering College, pp. 1–7.
14. Rohini, G., & Jamuna, V. (2012). Dynamic analysis of positive output super lift converter. *IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, IISc, Bengaluru, pp. 1–5. DOI: 10.1109/PEDES.2012.6484493. (Scopus indexed)
15. Newlin Nisha, Rohini, G., & Jamuna, V. (2012). Digital simulation of a single and interleaved soft switching boost converter for photovoltaic array. *IEEE International Conference on Computing, Electronics and Electrical Technologies*, Noorul Islam Centre for Higher Education, pp. 307–313. (Scopus indexed)
16. Jenifer, A., Rohini, G., & Jamuna, V. (2012). Development of MATLAB Simulink model for photovoltaic arrays. *IEEE International Conference on Computing, Electronics and Electrical Technologies*, Noorul Islam Centre for Higher Education, pp. 436–442. (Scopus indexed)
17. Vidyarubini, N., & Rohini, G. (2011). Z-source inverter based photovoltaic power generation system. *International Conference on Emerging Trends in Electrical and Computer Technology*, pp. 29–34.
18. Priya, P., & Rohini, G. (2010). Simulation of CCM boost converter for high voltage applications. *International Conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2010)*, 16–18 Dec, p. 58.

D. NATIONAL CONFERENCES

1. Manikandan, A., Rohini, G., & Jamuna, V. (2015). PV array fed interleaved buck boost converter. *National Conference on Recent Advances in Science, Engineering and Management*, Tagore Engineering College, Chennai, 20 March 2015.
2. Jamuna, V., Rohini, G., & Priyadarsini, D. (2014). MATLAB based modeling of photovoltaic array under partial shading condition. *National Conference on Intelligent Power Electronics Technology (IPET-2014)*, R.M.D. Engineering College, pp. 8–13.
3. Abirami, M., Rohini, G., & Jamuna, V. (2013). Digital simulation of INC with ISSBC for PV system. *National Conference on Recent Trends on Power Electronics and Power Systems*, RMK Engineering College, pp. 148–155.
4. Ramprakash, R., Rohini, G., & Jamuna, V. (2013). Maximum power point tracking of PV array using incremental conductance algorithm. *National Conference on Recent Trends on Power Electronics and Power Systems*, RMK Engineering College, pp. 33–39.
5. Shanmugavel, G., Isai Amudhan, A., Saravana Kumar, R., & Rohini, G. (2012). PV fed boost converter with MPPT algorithm. *National Conference on Innovative Techniques in Power Engineering and Drives*, Velammal Engineering College, pp. 138–143.

PROFESSIONAL MEMBERSHIPS: IEEE , IET, ISTE