

Faculty Profile

Dr. F. T. Josh

Assistant Professor (AGP 8000)

Department of Electrical and Electronics Engineering

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Academic Background

Degree	Branch	University	Year
Ph.D	Electrical Engineering	Anna University, Chennai	2014
M.E.	Power Electronics and Drives	Bharathidasan University	2002
B.E	Electrical and Electronics Engineering	Madurai Kamaraj University	2000

Professional Experience

Name & address of the Institution/ Organization	Post held	Period of service	
		From	To
Karunya Institute of Technology and Sciences (A Deemed University), Karunya Nagar, Coimbatore	Assistant Professor (AGP 8000)	1 st Nov 2011	Till Date
	Assistant Professor	1 st Jan 2009	31 st Oct 2011
	Senior Lecturer	1 st Oct 2005	31 st Dec 2008
	Lecturer	4 th Mar 2002	30 th Sep 2005
Total Experience = 21 Years			

Research Areas

- Electric Vehicle (EV) Design and Analysis
- Wireless Power Transfer for EV
- Multilevel Inverters
- Battery Energy Management Techniques
- AI for Renewable Energy
- IoT for Food and Agri Applications
- Modern Electric Drives for EV

Recent Courses Taught

- Electric Vehicle Design
- IoT for Food Industries
- Switched Mode Power Supplies
- Python for Electrical Engineering
- Industrial Practices
- Special Electrical Machines
- Computer Simulation of Electrical Systems
- Power Electronic Circuits
- General Aptitude and Soft Skills
- Basic Electrical and Computer Engineering

Responsibilities Held

- EEE Department Anti-Ragging Committee Member
- Mentor for 2023 B.Tech. EEE Students
- Electric Vehicle Research Group In charge

Membership in Professional Societies

- Life Member ISTE (India Society for Technical Education) - LM 108319
- Member IAENG (International Association of Engineers) – M. No.65358
- Member IEEE (The Institute of Electrical and Electronics Engineers) from 2010 – 2016, 2020, 2021, 2023 - M. No. 92145023

Academic Performance Index

• Publications in International Journals	- 19
• Publications in International Conferences	- 28
• Publications in National Conferences	- 6
• Participation and Presentation in International / National Conferences	- 15
• Participation in FDP / Workshops / STTP / Seminars / Guest Lectures	- 36
• FDP / Workshops / Seminars / Guest Lectures Organized	- 12
• Awards and achievements	- 2
• Ph.D Guiding	- 6
• M.E / M.Tech. Project Guided	- 29
• Foreign Interns Guided	- 12
• Short-Term Grants received	- 1
• Funding project proposal submitted	- 3
• Books / Chapters published	- 2

Significant Achievements

- Best Research Paper Award for the Year 2012 from EEE Department at Karunya University.
- Received an Appreciation for Fostering and Ecosystem bridging Government, Industry and Academia from Texas Instruments during December 2018 for Guiding the Project “Solar Powered Umbrella” for the Event “DST & Texas Instrument – India Innovation Challenge Design Contest 2018” anchored by NSRCEL.

Industry Collaborations / Interactions

- Radiforz Automation Pvt. Ltd., Chennai
- Ampere Electric Ltd., Coimbatore
- Salzer Electronics Ltd., Coimbatore

Recent Scopus Publications:

1. F. T. Josh, et. Al, "A novel symmetrical three level boost DC-AC converter for electric vehicles with reduced switch counts", *Materials Today: Proceedings*, 2022, Vol. 65, pp. 235-241.
2. F. T. Josh, et. Al, "Design Analysis of SSD Optimized Speed Controller for BLDC Motor", *International Journal of Electrical and Electronics Research*, 2022, Vo. 10 (3), pp. 529-535.
3. F. T. Josh, et. Al, "A test bench on quality checking for electric vehicle chargers", *Materials Today: Proceedings*, 2021, Vol. 45, pp. 8176–8181.
4. F. T. Josh, et. Al, "Dynamic Performance Analysis of Electrified Propulsion System in Electric Vehicle", *International Journal of Vehicle Autonomous Systems - INDERSCIENCE Publishers*, 2020 Vol. 15, Issue 1, pp. 26 – 49.
5. F. T. Josh, et. Al, "An Investigation on Wireless Power Transfer for Electric Vehicles", *International Journal of Advanced Science and Technology*, 2020, Vol. 29, No. 4, pp. 5510-5517.
6. F. T. Josh, et. Al, "Analysis of Power Electronic Converters for Electric Vehicle Applications", *Journal of Physics: Conference Series*, 2019, Vol. 1362, pp. 1 -10.
7. F. T. Josh, et. Al "Battery modelling for a Photovoltaic System with Battery Management System using Fuzzy Logic Controller", *International Journal of Recent Technology and Engineering*, 2019 Vol. 9, Issue 1S2, pp. 335-339.
8. F. T. Josh, et. Al, "Selection of Motor for an Electric Vehicle: A Review", *Materials Today Proceedings*, 2019, Vol.24, pp. 1804-1815.
9. F. T. Josh, et. Al, "Parametric Analysis of Axial Flux HUB Motor for Electric Vehicle in Rural Areas", *International Journal of Heavy Vehicle Systems*, INDERSCIENCE Publishers, 2018, Vol. 25, Issue 3-4, pp. 258-270.
10. F. T. Josh, et. Al, "High Conversion Ratio Power Converter for Electric Vehicle Application", *International Journal of Engineering and Technology (UAE)*, 2018, Vol.7, No. 3.34, pp. 944-947.
11. F. T. Josh, et. Al, "Introduction to ARM processors & its types and overview to Cortex M Series with deep explanation of each the processors in this family", 2022 IEEE International Conference on Computer Communication and Informatics (ICCCI-2022), organized by Shri Shakthi Institute of Engineering and Tech., Coimbatore, India, during 25th-27th Jan 2022, DOI: 10.1109/ICCCI54379.2022.9740768.
12. F. T. Josh, et. Al., "Handy Reader - A Shopping Guide To Visionless Using RaspberryPi" 2022 4th IEEE International Conference on Smart Systems and Inventive Technology (ICSSIT), organized by Francis Xavier Engineering College, Tirunelveli, India, during 20th-22nd Jan 2022, DOI: 10.1109/ICSSIT53264.2022.

13. F. T. Josh, et. Al, “Execution of Smart Electric Vehicle Charing Station Driven by RE Technology”, 2021 IEEE Mysore Annual Flagship International Conference, organized by Navkis College of Engineering, Hassan, India during 24th - 25th Oct 2021, DOI: 10.1109/MysuruCon52639.2021.9641653
14. F. T. Josh, et. Al, “A LITERATURE REVIEW AND ANALYSIS ON HYBRID CONTROL OF FAULT RIDE THROUGH AND TRANSIENT STABILITY OF VSC-HVDC”, International Conference on Emerging Technologies in Electrical Engineering ICETEE - 2021) at Malla Reddy College of Engineering and Technology, Telengana, during June 18th – 19th, 2021.
15. F. T. Josh, et. Al, “SIMULATION STUDY OF ANT COLONY OPTIMIZATION BASED HARMONIC ELIMINATION METHOD IN MULTILEVEL INVERTERS”, **International Conference** on Emerging Technologies in Electrical Engineering ICETEE -2021) at Malla Reddy College of Engineering and Technology, Telengana, during June 18th – 19th, 2021.