

FACULTY PROFILE

Name of the Staff : **Dr. F.X Edwin Deepak**
Official Address with E-mail Id : Assistant Professor (Sr.Gr.)
Dept. of EEE
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1. Personal Details

Age : 41
Date of Birth : 13.05.1985
Sex & Marital Status : Male & Married
Citizenship : Indian
Qualification : M.E., Ph.D

Educational Qualifications:

Degree	Specialization	Class	Year of Passing	Aggregate %	Institution
Ph.D (Part-time)	Z-Source Multilevel Inverter fed Induction Motor Drives (Power Electronics and Drives)	-	2018	-	ANNA University, Chennai
M.E	Power Electronics and Drives	First Class with Distinction	2009	85%	PSNA College of Engineering and Technology, Dindigul (ANNA University, Trichirappalli)
B.E	Electrical and Electronics Engineering	First Class	2006	71%	PSNA College of Engineering and Technology, Dindigul (ANNA University, Chennai)
HSC			2002	83.5%	MSP Solai Nadar Memorial Hr.Sec.School, Dindigul
S.S.L.C			2000	92.4%	St Mary's Hr.Sec School, Dindigul

Date of joining : 05.05.2023
Present status : Assistant Professor (Sr.Gr.)

Professional Experience

S.N O	NAME OF THE INSTITUTION/ORGANISATION	DESIGNATION	NATURE OF WORK	PERIOD
1.	PSNA College of Engineering and Technology, Dindigul.	Lecturer	Teaching	29-12-2008 TO 28-12-2010 (2 years)
2.	PSNA College of Engineering and Technology, Dindigul.	Assistant Professor	Teaching	28-12-2010 TO 01-02-2021 (11 years)
3.	PSNA College of Engineering and Technology, Dindigul.	Associate Professor	Teaching	01-02-2021 TO 02-05-2023 (2 years 3 Months)

Courses taught:

Course Title	U.G. or P.G.
Basic Electrical Electronics and Measurement Engineering, Linear Integrated Circuits and Applications, Digital Logic Circuits, Measurements and Instrumentation , Digital Principles and System Design , Special Electrical Machines , Design of Electrical Apparatus. Power Electronics, Solid State Drives, Circuit Theory.	U.G
Special Electrical Machines, Embedded C and Python Programming	PG

2. Academic Achievements

International /National Conference Publications:

S.No	Title of the Paper	Name of the Conference	Organizer	Month & Year
1.	GSM and GPS-Based Intelligent Student Tracking and Notification System"	ETFI 2026	DES Pune University. Pune	February 2026
2.	Delay- Compensated Real-Time Deep Reinforcement Learning Control of a Modified Y-Source DC-DC Converter	ICEES 2025	SNS College of Engineering	August 2025
3.	Real-Time Power Factor Correction Controller using Arduino	ICISS 2025	SCAD Engineering College	April 2025
4.	Streamlining Attendance Management in Education with RFID and IoT Technologies	ICAREIS 2024	Jyothi Engineering College , Tirussur, Kerala	December 2024

5.	Smart Car Access and Headlight System	IC3SEA2024	Study World College of Engineering , Coimbatore	July 2024
6.	Revolutionizing School Transportation Safety with Real-Time Data and Advanced Sensors	ICoICI 2024	JCT College of Engineering and Technology, Coimbatore.	August 2024
7.	Aggregated MCDM Framework in Optimal Selection of LI-ion Batteries of Electric Vehicles	ICICTEES-2024	Francis Xavier Engineering College, Tirunelveli	March 2024
8.	Ultra-Fast Charging E-Vehicle Batteries from PV using DC-DC Converter	(ICECAA), 2022	Gnanamani College of Technology, Namakkal	OCTOBER,2022
9.	Pythagorean Fuzzy Cognitive Maps in Making Optimal Decisions on Feasible Strategies for Inhibiting Electronic Waste.	I3CAC 2021	Bharath University, Chennai	JUNE, 2021
10.	Quasi Z Source DC-DC Converter with Improved Voltage Gain	EEICC 2020	Karpagam College of Engineering, Coimbatore.	JANUARY, 2020
11.	A Double Frequency Ripple Suppression Control on Quasi Z-Source Inverter,	NPEC 2018	Thiagarajar College of Engineering, Madurai	MARCH, 2018
12.	Performance Evaluation of Seven Level Cascaded H-Bridge Quasi Z-Source Inverter using Fuzzy Logic Controller	National Conference on Recent Advances in Pure and Applied Mathematics	Arul Ananandar College, Madurai.	MARCH, 2017
13.	Analysis of Seven Level Cascaded H-Bridge Quasi Z-Source Inverter	International Conference on Intelligent Computing and Systems	NSN College of Engineering and Technology, Karur	FEBRUARY, 2017
14.	Quasi Z-Source Inverter with Battery for PV Power Generation Sytem	ICIIECS'16	Karpagam College of Engineering, Coimbatore.	MARCH,2016
15.	A Z-Source Five-Level Inverter with Common Mode Voltage Elimination for Induction Motor Drives	ICIIECS'15	Karpagam College of Engineering, Coimbatore.	MARCH, 2015
16.	FPGA Implementation of Z-Source Multi-level Inverter for	Emerging Trends in	Mahath Amma Institute of	SEPTEMBER, 2013

	Induction Motor Drives	Power System and Power Electronics & Drives	Engineering & Technology, Pudukkottai	
17.	Performance Analysis of Z-Source Cascaded H-Bridge Multilevel Inverter Based on Multicarrier PWM Techniques	Emerging Trends in Electrical Engineering	Maria College of Engineering & Technology, Kanyakumari.	MARCH, 2013
18.	Performance Evaluation of Z-Source Cascaded H-Bridge Multilevel Inverter Based On Multicarrier PWM Techniques	Emerging Trends in Engineering	MET's School of Engineering, Mala, Thrissur	JANUARY, 2013
19.	Solar Integrated Current Fed Quasi Z-source Inverter with Power Buck-Boost Capability	IEEE-ICAESM-2012	E.G.S Pillay Engineering College, Nagapattinam	MARCH, 2012
20.	Voltage Buck-Boost using Current-Fed Quasi-Z-Source Inverter	ENGGPOS	Karpagam University, Coimbatore.	DECEMBER, 2011
21.	Single DC Source Cascaded H-Bridge Multilevel Inverter Using Three Phase Transformers For Three Phase Applications	2 nd National Conference on Advancement in Electrical Sciences	SNS College of Technology, Coimbatore	FEBRUARY, 2011
22.	Analysis of Resonance Complications on Z-Source Current Type Inverter Fed Induction Motor Drive	Information, Communication and Electrical Technologies	Velammal College of Engineering & Technology, Madurai	FEBRUARY, 2009

International Journal Publication

S. No	Title of the Paper	Name of the Journal	Vol. No & Page No & year
1.	Hamiltonian DNN-Optimized Adaptive Droop Control for Balancing Battery State of Charge in DC Microgrids by the RBMO	High Energy Chemistry	Vol. 59, No. 6, pp. 565-585, 2025
2.	A hybrid approach based internet of things assisted power monitoring system for smart grid	Analog Integrated Circuits and Signal Processing	Vol 125(30), 2025
3.	A hybrid approach based economic assessment EV charging station powered by integrating solar PV and biomass	Journal of Energy Storage.	Vol.96, pp.112488, 2024
4.	Integrated Machine Learning Algorithms and MCDM Techniques in Optimal Ranking of Battery Electric Vehicles	E3S Web of Conference	Vol.405, pp.02005, 2023
5.	Optimal Battery Selection for Electric Vehicles using ELECTRE	Indian Journal of Natural Sciences	Vol. 13, pp. 49663-49669, 2022

6.	Optimization of Inventory Model for Electrical Power Consumption of Two Transmission Stations with Different Demand Patterns and New Costs Parameters.	Solid State Technology	Vol. 63, pp. 1-15, 2020
7.	Fuzzy cognitive maps with linguistic concentric fuzzy hypergraphic approach to rank the benefits of outcome based education	AIP Conference Proceedings.	Vol.2261,pp.030120,2020
8.	Concurrent production and rework inventory management of electrical components	Advances in Mathematics: Scientific Journal	Vol. 9, pp. 3175-3180,2020
9.	Quasi Z-Source Resonant DC-DC Converter with Improved Voltage Gain	Test Engineering and management	Vol. 82, pp. 10675-10680,2020
10.	Fuzzy Logic Controlled PV Based Quasi Impedance Source Inverter for Charge Balancing	International Journal of Innovative Technology and Exploring Engineering	ISSN: 2278-3075, Volume-9 Issue-1, 2019
11.	Intervention of Environmental Engineering Principles in the Investigation of the Viable Air Pollution Mitigation Methods with IFS Tool.	International Journal of Innovative Technology and Exploring Engineering	ISSN: 2278-3075, Volume 8, Issue 4, pp 277-280,2019
12.	Application of New Additive Ratio Assessment (NARAS) Method in Selection of Material for Optimal Design of Engineering Components	Materials Today: Proceedings	ISSN: 2214-785 „Volume 11, pp1049-1053,2019.
13.	Design and analysis of Z-source based 7 level cascaded multi level inverter for induction motor.	IEICE Electronics Express	vol. 14, pp. 20170940-20170940, 2017.
14.	Performance Evaluation of Seven Level Cascaded H-Bridge Quasi Z - Source Inverter Using Fuzzy Logic Controller.	Middle-East Journal of Scientific Research	Vol.25,issue 2,PP 341-347,2017.
15.	Three phase z-source neutral point clamped inverter with multicarrier PWM technique.	The international journal for computation and mathematics in electrical and electronic engineering.	Vol. 35,Issue5 , pp 1575-1591,2016.
16.	A Quasi Z-source inverter with battery for PV Power Generation System	Pakistan Journal of Biotechnology	Vol.13, special issue, pp.337-341,2016.
17.	A Z-Source Five Level Inverter with Common Mode Voltage Elimination For Induction Motor Drives.	International Journal of Applied Engineering Research(IJAER)	Vol.1, No. 20, pp. 16862-16868, 2015.
18.	FPGA Implementation of Z-source multilevel inverter fed induction motor drives.	International Review of Electrical Engineering (IREE)	Vol.9 ,Issue 4,pp.735-742,2014.
19.	A Comparison of Multi-carrier PWM Techniques with Z-Source Five Level Diode Point Clamped Inverter.	IOSR-Journal of Electrical and Electronics Engineering (IOSR-JEEE),	Vol.9,Issue 1, pp.14-19,2014.
20.	Analysis of Resonance Complications on Z-Source Current Type Inverter Fed Induction Motor Drive.	International Journal of Engineering and	Vol.2, Issue 9,pp.181-186,2013.

		Innovative Technology	
21.	Performance Analysis of Z-Source Cascaded H-bridge Multilevel Inverter Based on Multi Carrier PWM Techniques.	International Journal of Modern Engineering Research.	Vol.3, Issue6, 2013
22.	Power Buck-Boost using Current-Fed Quasi Impedance Source Inverter,	European Journal of Scientific Research (EJSR)	Vol.81, Issue 2, pp 263-269, 2012.

Short term Courses / Seminars / Conference/ Workshops Attended:

S.No	Title	Period	venue
1.	Workshop on “ Insight of Intelligent Electrical Drives	15 th -20 th Sep 2025	National Institute of Technology, Tiruchirappalli
2.	ATAL FDP on “ Design and Development of Micro/Smart Grid Intended for smart city development and enhancing e-mobility	18 th -23 rd Nov 2024.	Vellore Institute of Technology, Vellore
3.	FDP on “ Trends and Challenges in EV Drive Train Design and Control ”	19 th -23 rd June 2023.	National Institute of Technology, Tiruchirappalli
4.	One day seminar on “ ELECTROMAGNETIC INTERFERENCE AND HARMONIC REDUCTION TECHNIQUES ”	21 st April 2022	PSNA College of Engineering and Technology, Dindigul.
5.	Online short term course titled “ Electromagnetics: Recent Trends and Future Applications ”	February 28, 2022 to March 05, 2022.	The Department of Electrical Engineering, IIT Indore
6.	STTP on “ Electric Vehicle Integration Into Modern Power Networks-Challenges and solution Approaches ”	4 th April 2022 to 8 th April 2022	Vellore Institute of Technology, Chennai.
7.	AICTE Training And Learning (ATAL) Academy Online FDP on “ Robotics ”	4 th Jan 2021 to 8 th Jan 2021	Dhanekula Institute Of Engineering And Technology.
8.	AICTE Sponsored Two weeks Online Faculty Development Program on “ Electric Vehicles with Smart Grid Integration ”(Phase-2)	19-04-2021 to 30-04-2021	Bonam Venkata Chalamayya Institute of Technology & Science, Amalapuram, Andhra Pradesh,
9.	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on “ ELECTRIC VEHICLES ”	7 th June 2021 to 11 th June 2021	National Institute of Technology, Tiruchirappalli
10.	One week online STTP on” RECENT ADVANCES IN EV TECHNOLOGIES , (Series-C)	14 th June 2021 to 19 th June 2021	Matrusri Engineering College, Hyderabad
11.	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on “ EMINENCE OF ELECTRIC VEHICLES AND ROBOTICS IN AGRONOMY ”.	21 st June 2021 to 25 th June 2021	Dhanalakshmi Srinivasan Engineering College.
12.	AICTE Training And Learning (ATAL) Academy Online FDP on “ Sensors Technology ”.	17 th Aug 2020 to 21 st Aug 2020	St.Joseph's Institute of Technology.Chennai

13.	One week online STTP on “ Role of Smart Technology in Maritime Industries ”.	23 rd to 28 th November 2020	AMET Deemed University, Chennai
14.	AICTE sponsored STTP on “ AI-Based Novel Power Distribution and Correction Technology ”.	30 th November 2020 to 5 th December 2020	Sengunthar Engineering College, Tiruchengode
15.	Two-week AICTE sponsored FDP on “ Cutting Edge Trends in Deep Learning Approaches ”.	07 th Dec 2020 to 22 nd Dec 2020	Kongu Engineering College, Erode
16.	AICTE Training And Learning (ATAL) Academy Online FDP on “ Energy Engineering ”.	21 st Dec 2020 to 25 th Dec 2020	Government College of Engineering, Thanjavur.
17.	AICTE Training And Learning (ATAL) Academy Online FDP on “ Internet of Things (IoT) ”.	26 th Dec to 30 th Dec 2020	National Institute of Technology Puducherry.
18.	National Seminar on “ Fuel Cell Energy Conversion System ”.	3 rd March 2018	PSNA College of Engineering and Technology, Dindigul.
19.	International Workshop on “ Writing and Publishing Research Papers in High Impact Factor Journals ”.	26 th December, 2016	PSNA College of Engineering and Technology, Dindigul.
20.	Two days Workshop on “ Hardware in the loop simulation for Power Electronics and Control applications using labVIEW ”.	December 16-17, 2016	Mepco Schlenk Engineering College, Sivakasi
21.	IEEE Student Branch Sponsored National Level Workshop on “ Simulation of IEEE Transaction Papers on Multilevel Inverters ”.	19 th December 2015	Karpagam College of Engineering, Coimbatore
22.	Four day FDP on “ Effective Communication ”.	23 rd to 26 th November 2015	PSNA College of Engineering and Technology, Dindigul.
23.	TEQIP Sponsored Two-day FDP on “ Research Issues and Emerging Trends in Control Systems Engineering ”.	14 th & 15 th February 2014	TCE, Madurai.

Online Certification Completed:

S. No	Certification	Period	Organizers	Remarks
1.	NPTEL online certification on “Smart Grid”	12 weeks	IIT Madras	Elite + Silver
2.	NPTEL online certification on “Renewable Energy Systems”	12 weeks	IIT Roorkee	Elite
3.	NPTEL online certification on “Design of Photo Voltaic Systems”	12 weeks	IIT Kharagpur	Certified
4.	NPTEL online certification on “Electrical Measurement and Electronic Instruments”	12 weeks	IIT Madras	Certified

5.	NPTEL online certification on” Machine Learning and Deep Learning”	12 weeks	IIT Madras	Certified
6.	NPTEL online certification on” Electric Vehicles”	12 weeks	IIT Kharagpur	Certified
7.	NPTEL online certification on” Design Thinking – A Primer”	4 weeks	IIT Madras	Elite
8.	NPTEL online certification on” Advance Power Electronics And Control”	8 weeks	IIT Roorkee	Elite
9.	NPTEL online certification on” Accreditation And Outcome Based Learning”	8 weeks	IIT Kharagpur	Elite
10.	NPTEL online certification on” Patent Law for Engineers and Scientists”	12 weeks	IIT Madras	Certified
11.	NPTEL online certification on” Intellectual Property”	12 weeks	IIT Madras	Certified
12.	NPTEL online certification on “Electrical Machines-I”.	12 weeks	IIT Kharagpur	Certified
13.	NPTEL online certification on” Analog Circuits”.	8 weeks	IIT Bombay	Certified
14.	NPTEL online certification on” Patent Drafting for Beginners”	4 weeks	IITM	Certified
15.	NPTEL online certification on”Design and Simulation of Power Conversion using open-source tools”	4 weeks	IISC,Banglore	Certified
16.	Udemy certificate on”Robotics”		Udemy	Certified
17.	Udemy Certificate on” Latex A-Z from Beginner to Advance”.		Udemy	Certified
18.	Cousera certificate on” Electrical Power Systems”		Coursera	Certified
19.	Cousera certificate on” Introduction to Electronics”		Coursera	Certified
20.	Cousera certificate on” Cyber security and the Internet of Things”		Coursera	Certified
21.	Cousera certificate on” Wind Energy”		Coursera	Certified
22.	Cousera certificate on” Matrix Algebra for Engineers”		Coursera	Certified
23.	Cousera certificate on” Solar Energy Basics”		Coursera	Certified
24.	Cousera certificate on” Create Informative Presentation using Google Slides”		Coursera	Certified
25.	Cousera certificate on” Electric Utilities Fundamental and Future”		Coursera	Certified

Industrial Training Attended:

S. No	Training Details	Period	Company Details
1.	one day training program	29-11-2025	Aquasub Engineering ,Coimbatore
2	Certification to conduct training programmed in Switchgear, Protection & Safety employing VOLTECH products	20.05.2019 to 25.05.2019	Voltech, Chennai
3.	5 days training program on “IIoT& Industry 4.0-Basics and Implementation	16.08.2019 to 21.08.2019	Bluetronics, Bengluru
4.	Undergone Industrial Training in TVS Sensing Solutions Private Limited, Melur, Madurai	26.02.2024 - 01.03.2024	TVS Sensing Solutions Private Limited, Melur, Madurai

List of Patent Published:

S. No	Title of the Invention	Application Number	Publication Date
1.	Solar power assisted ventilated face mask with y bone separator.	20214015559A	11/06/21

3. Membership in Professional bodies :

Name of Society	Grade of Membership
ISTE	Life Member

4. Additional Responsibilities held:

- Member in the NBA/NAAC for the file preparation for Direct Assessment Criteria.
- Co-Ordinator for Attendance Monitoring
- Member in the Assessment Entry for the students in the Anna University Web Portal.
- Served as a Mentor/Tutor.

5. Awards & Reconizations:

- GOT UNIVERSITY SECOND RANK from ANNA UNIVERSITY TIRUCHIRAPPALLI IN ME POWER ELECTRONICS AND DRIVES.
- Chaired a session in the International Conference on Computing, Communication, Nanophotonics, Nanoscience, Nanomaterials and Nanotechnology (12C4N-2K16) Organized by Holy Grace Academy of Engineering, Thrissur, Kerala.