


Name of the Faculty	Dr. J. KARTIGEYAN		
Designation	Professor & Dean of Student Affairs		
Date of Joining	30-08-2017		
E - Mail	deanstudentaffairs@jbiet.edu.in		
Educational Qualifications	Name of the Degree	Institute/ University	Class
Ph. D	Doctor of Philosophy (Electrical Engineering)	Annamalai University	Awarded
PG	M. Tech (Electrical Drives and Control)	Pondicherry University	First
UG	B.E (Electrical and Electronics Engineering)	Madras University	First
Work Experience			
Teaching	13Years 6 Months		
Research	3 Years 6 Months		
Industry	NIL		
Responsibilities held at the central level in college	<ul style="list-style-type: none"> ▪ Dean of Student Affairs ▪ Played a vital central-level role in UGC, AICTE, NBA, and NAAC inspections ▪ Convenor for the Anti-Ragging, Disciplinary, Hostel, Extracurricular, Anti-Drug Committee, and Student Wellness Centre ▪ Convenor for SAC, NSS and Sports 		
Responsibilities held at the departmental level in college	<ul style="list-style-type: none"> ▪ Former HoD of Department of EEE ▪ NBA Criteria 1 and 3 Incharge, Department NBA & NAAC Coordinator, BOS Coordinator 		
Courses Handled at UG Level	<ul style="list-style-type: none"> ▪ Basic Electrical and Electronics Engineering, Electronic Devices and Circuits, Pulse and Digital Circuits, Electromagnetic Fields, Control Systems, Linear Integrated Circuits, Power Electronics, Power Systems – I, Power Systems – II, Power Semiconductor Drives, Electrical Machine Design, Special Electrical Machines, Switchgear and Protection, Energy Engineering, Utilization of Electrical Energy 		
Courses Handled at PG Level	<ul style="list-style-type: none"> ▪ HVDC Transmission, Electric Vehicle 		
Area of Research	<ul style="list-style-type: none"> ▪ Power Converters, Magnetic Materials, Design and Development of Electrical Machines using Finite Element Method and Electric Vehicles 		
Research Guidance for M. Tech/ Ph. D Students	<ul style="list-style-type: none"> ▪ Guided more than 10 M.Tech Students ▪ Guiding Two Ph.D Scholars ▪ One Ph.D Scholar Submitted Thesis 		
Books/ Book Chapters Published	<ul style="list-style-type: none"> ▪ J.Kartigeyan, Advanced Engineering Research and Applications – Book Chapter (Magnetic Materials for Rotating Electrical Machines: A Selection Perspective), ISBN: 978-93-87374-77-5, Research India Publications, 2019, Book Code: AERA. 		

<p>Prominent Research Publications in Conferences</p>	<p>RECENT CONFERENCE PUBLICATIONS</p> <ul style="list-style-type: none"> ▪ J.Kartigeyan, "Enhanced Particle Swarm Optimization based Node Localization Scheme in Wireless Sensor Networks", Proceedings of the International Conference on Augmented Intelligence and Sustainable Systems, 1019-1024, 2022. ▪ J.Kartigeyan, "A Comprehensive Review of UPFC Techniques For Improving Power Quality", International Conference on Energy, Materials and Communication Engineering (ICEMCE), IEEE, Dec 2023.
<p>Prominent Research Publications in Journals</p>	<p>RECENT JOURNALS PUBLICATIONS</p> <ul style="list-style-type: none"> ▪ J.Kartigeyan, "Effect of Material Properties on Core Loss in Switched Reluctance Motor using Non-Oriented Electrical Steels", Journal of Magnetics, 22(1), 93-99, 2017. ▪ J.Kartigeyan, "Magnetic Materials for Rotating Electrical Machines: A Selection Perspective", International Journal of Applied Engineering Research, 13(2), 1506-1513, 2018. ▪ J.Kartigeyan, "Power Quality Analysis of Multilevel Renewable Energy Sources", Journal of Critical Reviews, 7(18), 647- 652, 2020. ▪ J.Kartigeyan, "Magnetic Performance of 3-phase 12/8 Poles Switched Reluctance Motor", IJRAR, 6(2), 1-6, 2019. ▪ J.Kartigeyan, "Core Loss Analysis of Linear Switched Reluctance Motor", IJRAR, 6(2), 7-12, 2019. ▪ J.Kartigeyan, "2-D Finite-Element Analysis of 8/6 Switched Reluctance Motor with C-Core Stators", IJRAR, 6(2), 13-20, 2019. ▪ J.Kartigeyan, "Modeling of Switched Reluctance Motor using Soft Magnetic Composites", IJRAR, 6(2), 21-29, 2019. ▪ J.Kartigeyan, "Miniature Thermal Power Plant Using Tep Transducer for Domestic and Industrial Applications", JETIR, 6(5), 581-585, 2019. ▪ J.Kartigeyan, "Effect of Steel Lamination on Core Losses in Switched Reluctance Motors", International Journal of Electrical Engineering & Technology, 7(6), 64-74, 2016. ▪ J.Kartigeyan, "Fault Tolerance of 12/8 Switched Reluctance Motor Using Fuzzy logic Controller", International Journal of Scientific & Engineering Research, 7(11), 325-330, 2016. ▪ J.Kartigeyan, "Analysis, Design and Implementation of an APWM ZVZCS Full Bridge DC to DC Converter for Battery Charging In Electric Vehicle", JES, 11(5), 145-148, 2020. ▪ J.Kartigeyan, "Core Loss Model for Switched Reluctance Motor in Electric Vehicles", IJCRT, 6(1), 139-146, 2018. ▪ J.Kartigeyan, "Three-Level Inverter Based Autonomous Power Management Scheme for Interlinking AC-DC Micro grids", JETIR, 7(2), 144-151, 2020. ▪ J.Kartigeyan, "Improving the power quality of Distribution System by Using Modified UPQC Controller", JETIR, 7(2), 130-137, 2020. ▪ J.Kartigeyan, "A PV Based Hybrid Energy Storage System for Electric Vehicles", 9(12), 672-680, 2021. ▪ J.Kartigeyan, "A Modified Structure of Comparative Analysis of 13& 15 Multilevel Topologies for Renewable Applications, Design Engineering, 9(6), 6861-6866, 2021.

	<ul style="list-style-type: none"> ▪ J.Kartigeyan, “Simulation and Analysis of Fuzzy Controlled Grid-Connected Pv System With P&Q Control Theory”, 15(1), 67-75, 2023. ▪ J.Kartigeyan, “WECS Fed Unified Power Flow Conditioner for Solving PQ Issues with Crow Search Algorithm”, International Journal of Intelligent Systems and Applications In Engineering, 10(4), 57–66, 2022. ▪ J.Kartigeyan, “Mitigation of power quality disturbances in wind energy conversion systems with fed unified power flow controllers using cascaded adaptive neuro-fuzzy inference system controller”, International Journal of Advanced Technology and Engineering Exploration, 10 (108), 1503 – 1523, 2023. ▪ J.Kartigeyan, “Intelligent controller based WECS fed unified power flow conditioner for PQ enhancement”, International Journal of Power Electronics and Drive Systems, 14 (4), 2148 – 2162, 2023. ▪ J.Kartigeyan, “Investigative study on the properties of magnetic materials for electrical machines” Indonesian Journal of Electrical Engineering and Computer Science, 32 (1), 71 -79, 2023.
<p>Patents</p>	<ul style="list-style-type: none"> ▪ J.Kartigeyan, “An Intelligent Mobile Alert System for Reservoir Water Level and Flow Indication Integrated with GPS for Farmers”, Indian Patent Office Journal, Application Number: 202041032052, Publication Date (U/S 11A): 21/08/2020. ▪ J.Kartigeyan, “Door Mounted Door Handle Sanitizer Dispenser”, Indian Patent Office Journal, Application Number: 202041026845, Publication Date (U/S 11A): 10/07/2020. ▪ J.Kartigeyan, “IOT Enabled Calorie Counter Wristwatch”, Indian Patent Office Journal, Application Number: 202041030037, Publication Date (U/S 11A): 31/07/2020. ▪ J.Kartigeyan, “Nano Electronics Based Solar Cells for Efficient Performance of Absorption of Solar Energy”, Indian Patent Office Journal, Application Number: 202211013548, Publication Date (U/S 11A): 01/04/2022. ▪ J.Kartigeyan, “Nanotechnology Utilization Aspects in Solar Photovoltaic Cells for Efficient Performance Analysis and Absorption Rate Of Solar Energy”, Indian Patent Office Journal, Application Number: 202241015269, Publication Date (U/S 11A): 25/03/2022. ▪ J.Kartigeyan, “artificial intelligence-based system for addressing the Privacy and security aspects of wireless networks”, Indian Patent Office Journal, Application Number: 202211018717, Publication Date (U/S 11A): 08/04/2022. ▪ J.Kartigeyan, “Smart Dielectric System To Protect The Humans Working on Electric Poles”, Indian Patent Office Journal, Application Number: 202221012862, Publication Date (U/S 11A): 29/04/2022. ▪ J.Kartigeyan, “Design of Solar Thermal Power Integration Systems to Increase the Efficiency of Utilization of Renewable Energy Resources in Housing Units”, Indian Patent Office Journal,

	<p>Application Number: 202211035079, Publication Date (U/S 11A): 01/07/2022.</p> <ul style="list-style-type: none"> ▪ J.Kartigeyan, "An Automated Artificial Intelligence Based Approach to handle to Servicing of Electric Vehicles", Indian Patent Office Journal, Application Number: 202241048683, Publication Date (U/S 11A): 02/09/2022. ▪ J.Kartigeyan, "Artificial Intelligence Based Approach to Design an engine to Receive Wind Energy and Run The Electric vehicles", Indian Patent Office Journal, Application Number: 202241051820, Publication Date (U/S 11A): 16/09/2022. ▪ J.Kartigeyan, "An IOT Integrated Smart Irrigation System Based on Wind Energy Utilization to Monitor the Watering of Crops", Indian Patent Office Journal, Application Number: 202241052586, Publication Date (U/S 11A): 23/09/2022. ▪ J.Kartigeyan, "Analysing the Synergic Effects of Unidirectional and Bidirectional Smart Charging Points of Electric Vehicles", Indian Patent Office Journal, Application Number: 202211055119, Publication Date (U/S 11A): 14/10/2022. ▪ J.Kartigeyan, "Design of an Integer Linear Programming Model for Partially Ordered Sets of Logical Units of Computers", Indian Patent Office Journal, Application Number: 202241066588, Publication Date (U/S 11A): 09/12/2022. ▪ J.Kartigeyan, "Smart Switches with LED lights to indicate the on or off of the Switch from a Distance", Intellectual Property Office of the United Kingdom, Design number: 6302719, Grant date: 18 August 2023.
Web of Science/Scopus ID	<p>57197830535 https://www.mendeley.com/profiles/kartigeyan-jayaraman/#profile-employment</p>
H-Index (As per SCOPUS Database)	<ul style="list-style-type: none"> ▪ 11
Professional Memberships	<ul style="list-style-type: none"> ▪ AICTSD - 3758
Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops (Attended and Organized)	<ul style="list-style-type: none"> ▪ Recent Advances in the Power Sector, Challenges, Solutions & Opportunities ,31st July – 05th Aug 2023 ,VJIT ▪ Academic Challenges Towards Implementation of NEP in HEI's, 29th – 30th Sep 2022 ,LTJSS ▪ PYTHON Programming ,08th – 13th Aug 2022 ,JBIET ▪ Online Workshop on Intellectual Properties Rights ,10th -11th Apr, 2020 ,IPPO ▪ Online Webinar on Paper Writing And Publishing In Reputed Journals ,18th Apr, 2020 ,StartCore Techs. ▪ Online Webinar on Structuring Your Article Correctly ,22nd Apr, 2020 ,Research Academy ▪ Online FDP on Research Opportunities in Power Engineering ,22nd -27th Apr, 2020 ,CMR ▪ Online Webinar on Renewable Energy Grid Integration: Challenges and Key Issues ,23rd Apr, 2020 ,IEEE MEA SB ▪ Online Webinar on Permanent Magnet Machines for Industrial and Strategic Applications" ,26th Apr, 2020 ,IEEE SC, CBIET ▪ Online FDP on Outcome Based Education ,1st May, 2020 ,Inpods

	<ul style="list-style-type: none"> ▪ Online Webinar on Opportunities for Engineers and Exceptions from Industry ,2nd May, 2020 ,CIT ▪ FDP on Effective Teaching and Research Skills ,05th -11th, Nov, 2019 ,VJIT ▪ FDP on Emerging Trends in Power and Energy: A Research Perspective ,07th -13th Aug, 2019 ,JBIET ▪ FDP on Machine Learning with Python ,05th - 09th Aug, 2019 ,JBIET ▪ Workshop on Significance of MATLAB in Applications of Emerging Technologies ,26th Jun, 2019 ,CBIT ▪ Seminar on Awareness of Advanced Emerging Technologies ,25th Feb, 2019 ,JBIET ▪ Add-on Course on Industrial Automation using Programmable Logic Controller (PLC & SCADA) ,19th -23rd Feb, 2019 ,JBIET ▪ Training Program on Career Counseling for Overseas Studies,19th Feb, 2019 ,JBIET ▪ Seminar on Seminar on Switchgear Engineering, its Evolution and Modern Trends ,09th Jan, 2019,JBIET ▪ Seminar on Emerging Trends in the Operation and Control of Wind Energy Systems ,08th – 09th , Dec, 2018 ,Annamalai University ▪ Seminar on Recent Trends in Batteries ,03rd Aug, 2018 ,JBIET ▪ Workshop on Emerging Challenges in the operation and Control of Solar Power Plants ,24th – 25th , Mar, 2018 ,Annamalai University ▪ Workshop on Emerging Trends in the Operation and Control of Smart Grid ,17th – 18th , Sep, 2016 ,Annamalai University ▪ Short Term Training Programme on Trends and Issues in Modelling and Design of Digital Systems ,22nd – 26th , Sep, 2015 ,Annamalai University ▪ Workshop on Emerging Trends in Energy Systems Management ,14th – 16th , Mar, 2014 ,Annamalai University
--	--