

BIO DATA**Name** : K. Karthikeyan**Designation** : Professor**Department** : Electrical and Electronics Engineering**Address for Communication:** 6, Chettiyakudi Kalamman
Kovil Street, Srivilliputhur - 626125**Email** : karthikeyank@ritrjpm.ac.in**Mobile Number:** 9790061900**IUCEE certified International Engineering Educator****Tessolve certified STE Trainer****Bennett University & nVIDIA trained deep learning programmer****Anna University Recognized Research Supervisor****Researcher ID:** <https://www.webofscience.com/wos/author/record/I-6063-2013>**Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=57223054644>**Orcid ID:** <https://orcid.org/my-orcid?orcid=0000-0002-4720-6060>**Vidwan ID:** <https://ritrjpm.irins.org/profile/168527>**Google Scholar:** <https://scholar.google.com/citations?user=WWgd0YQAAAAJ>**Research Gate:** https://www.researchgate.net/profile/Karthikeyan_Krishnamoorthy**1. Educational Qualification**

Degree	Branch / Specialization	Institute/University	Year of Passing
B.E.	Electrical and Electronics Engineering	Arulmigu Kalasalingam College of Engineering / Madurai Kamaraj University	2002
M.E	Electrical Engineering / High Voltage Engineering	Jadavpur University	2007
Ph.D.	Electrical Engineering / Power System Engineering	Kalasalingam University	2017

Degree	Title	Date of award	University
Ph.D.	Application of Differential Evolution and its variants to Generation expansion Planning Guide: Dr. C. Thangaraj Co-Guide: Dr. S. Kannan	Date of Registration: 22.02.2010 Date of Comprehension: 16.07.2011 Date of Thesis Submission: 13.11.2015 Date of Viva-voce: 25.09.2017 Date of Award: 25.09.2017	<i>Kalasalingam University</i>

2. Professional/ Industry Experience : (in reverse chronological order)

Sl. No.	Designation	Institution/ Organization	Period	
			From	To
1	Professor/EEE	Ramco Institute of Technology	01.02.24	Till date
2	Associate Professor/EEE	Ramco Institute of Technology	01.06.18	31.01.24
3	Assistant Professor (Senior Grade) / EEE	Ramco Institute of Technology	01.07.17	31.05.18
4	Assistant Professor/EEE	Ramco Institute of Technology	09.05.13	30.06.17
5	Assistant Professor - II / EEE	Kalasalingam University	01.09.12	25.04.13
6	Assistant Professor - I / EEE	Kalasalingam University	01.12.11	31.08.12
7	Assistant Professor / ECE	Kalasalingam University	12.06.08	30.11.11
8	Software Engineer	HCL Technologies Ltd, Gurgaon	22.08.07	30.05.08
9	Lecturer / EEE	Sree Sowdambika College of Engineering, Aruppukottai	12.07.02	14.06.05

3. Research Interest

- Generation Expansion Planning
- Power system optimization
- Computational Intelligence
- Machine learning, and Deep learning

4. Publications

Journals						Conference			Grand Total
SCI E	WoS	Scopus	UGC	Others	Total	International	National	Total	
8	3	5	1	4	21	5	4	9	30

4.1 JOURNAL PUBLICATIONS

1. T.V. Chithra, K. Karthikeyan, D. Mansoor Hussain and N. Muthukumaran, "Energy Aware Reliable Sleep Wakeup based Clustering Scheme in WSN," IETE Journal of Research, 2024. Published online. DOI: 10.1080/03772063.2024.2310114 (SCI E) (Scopus) (IF: 1.5)
2. Karthikeyan K, Anitha P, Karthik Kumar K, and Kamaraja A S, "Smart Emergency Charging of Electric Vehicle with Solar PV-based Backstepping Model-Free and critic RL Control Structure", Control Engineering and Applied Informatics, Vol.25, No.1, pp. 69-78, ISSN: 1454-8658, 2023. (SCI E) (Scopus) (IF: 1.299)
3. S. Rajasekaran, S. Suresh, A. Bhuvanesh, K. Karthikeyan, "A Novel Solar Photovoltaic Integrated Modified SEPIC High Gain DC-DC Converter using Evolutionary Algorithms for Electric Vehicle Battery Applications", Journal of

- Electrical Engineering & Technology, <https://doi.org/10.1007/s42835-023-01459-2>
E-ISSN: 2093-7423, Print ISSN: 1975-0102 (SCI E) (Scopus) (IF: 1.528)
4. S. Rajasekaran, S. Suresh, K. Karthikeyan, A. Bhuvanesh, “Implementation of an A-Source DC–DC Boost Combination Phase-Shifting Full-Bridge Converter for Electric Car Rapid Charging Applications”, *Journal of Electrical Engineering & Technology*, <https://doi.org/10.1007/s42835-023-01382-6>. (SCI E) (Scopus) (IF: 1.528)
 5. Rajeev Kapoor, Anitha.T, K. Karthikeyan, Aleem Ali, “Machine Learning to provide automated, deeper understanding of health care data to improve patient outcomes”, *Bull. Env. Pharmacol. Life Sci.*, Vol.11, No. 5, pp. 38-43, April 2022. (WoS)
 6. M.Thilagaraj, S.Ramkumar, N.Arunkumar, A.Durgadevi, K.Karthikeyan, S.Hariharasitaraman, M. Pallikonda Rajasekaran, and Petchinathan Govindan, “Classification of Electroencephalogram Signal for Developing Brain-Computer Interface Using Bioinspired Machine Learning Approach”, *Computational Intelligence and Neuroscience*, Volume 2022, Article ID 4487254, <https://doi.org/10.1155/2022/4487254>, 25th February 2022. Impact factor: 3.120 (SCI E) (SCOPUS)
 7. M. Thilagaraj, B. Dwarakanath, S. Ramkumar, K. Karthikeyan, A. Prabhu, Gurusamy Saravanakumar, M. Pallikonda Rajasekaran, and N. Arunkumar, “Eye Movement Signal Classification for Developing Human-Computer Interface using Electrooculogram”, *Journal of Healthcare Engineering*, Volume 2021, Article ID 7901310, 08th December 2021. <https://doi.org/10.1155/2021/7901310>. Impact factor: 3.822 (SCI E) (SCOPUS)
 8. R. Kannan, V. Jenitha, K. Karthikeyan & A. Ram Kumar, “Speed control of three phase induction motor using Arduino and V/F technique”, *Natural Volatiles & Essential oils*, Vol. 8, No. 4, pp. 1602-1611, November 2021. (SCOPUS)
 9. P. Muthulakshmi, T. Ramya, S. Jerome Singh, K. Parthasarathy & K. Karthikeyan, “Fault identification and rectification in a wind energy conversion system: A real time investigation”, *Natural Volatiles & Essential oils*, Vol. 8, No. 4, pp. 1551-1560, November 2021. (SCOPUS)
 10. A. Bhuvanesh, K. Karthikeyan, S. Amosedinakaran, and S. Kannan, “Generation expansion planning for India by enhancing renewable integration”, *Journal of Green Engineering*, vol. 10, no. 7, p. 4257–4267, 2020 (SCOPUS)
 11. P. Amarnath, V. Roshan, M. Thangavel Pandi and K. Karthikeyan (June 2018), “Investment Grade Energy Auditing in Cement Industry”, *International Journal for trends in Engineering and Technology*, Vol. 30, No.1, pp.47-51, ISSN: 2349-9303.
 12. P. Prem Kumar, W. Deotus, S. Kathir, T. Prasad, K. Karthikeyan (March 2018), “Autonomous Water Tank Cleaning Robot for Indian Household”, *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering*, Vol. 7, No. 3, pp.1139-1142, DOI:10.15662/IJAREEIE.2018.0703017, e-ISSN: 2278-8875, p-ISSN: 2320-3765.
 13. P. Moses Stephen, M. Ponraj, N. Sathesh, K. Balamurugan, K. Karthikeyan (March 2018), “Modified cascaded H-Bridge Multilevel inverter for Household appliances”, *International Research Journal of Engineering and Technology*, Vol. 5, No.3, pp. 3089-3093, e-ISSN: 2395-0056, p-ISSN: 2395-0072.

14. K. Rajesh, K. Karthikeyan, S. Kannan and C. Thangaraj (2016), “Generation Expansion Planning based on Solar plants with Storage”, *Renewable and Sustainable Energy Reviews* (Elsevier), Vol. 57, pp.953-964, Impact factor: 16.799, DOI: 10.1016/j.rser.2015.12.126. (SCIE) (SCOPUS)
15. K. Rajesh, K. Karthikeyan, S. Kannan and M. Karuppasamyandian (2015), “Generation Capacity Expansion Planning with Solar Power Plant Incorporating Emission”, *VFSTR Journal of STEM*, Vol.01, No.02, pp.18-37, ISSN: 2455-2062.
16. K. Karthikeyan, S. Kannan, S. Baskar, and C. Thangaraj (2015), “Application of MOEA/D Algorithm to Multi objective generation expansion planning problem”, *International Journal of Applied Engineering Research*, Vol. 10, No. 44, pp. 31875-31882, ISSN: 0973-4562. (SCOPUS)
17. K. Karthikeyan, S. Kannan, S. Baskar, and C. Thangaraj (2015), “Application of NSGA-II, MNSGA-II, and IGDE-3 Algorithms to Transmission Constrained Multi objective generation expansion planning problem”, *International Journal of Applied Engineering Research*, Vol. 10, No. 44, pp. 31004 – 31013, ISSN: 0973-4562. (SCOPUS)
18. K. Karthikeyan, S. Kannan, S. Baskar, and C. Thangaraj (June 2013), “Application of Self-adaptive Differential Evolution Algorithm to Generation Expansion Planning Problem”, *Journal of Electrical Systems*, Vol. 09, No. 02, pp. 203-211, ISSN: 1112-5209. (WoS)
19. K. Karthikeyan, S. Kannan, S. Baskar, and C. Thangaraj (2013), “Application of Opposition-based Differential Evolution Algorithm to Generation Expansion Planning Problem”, *Journal of Electrical Engineering & Technology*, Vol. 08, No. 04, pp. 686-693, Impact factor: 1.528, ISSN (print): 1975-0102, ISSN (online): 2093-7423. DOI: 10.5370/JEET.2013.8.4.686 (SCIE) (SCOPUS)
20. K. Karthikeyan, S. Kannan, S. Baskar, and C. Thangaraj (October 2012), “Application of Restart CMA-ES Algorithm to Generation Expansion Planning Problem”, *ICTACT Journal on Soft Computing*, Vol. 03, No. 01, ISSN: 2229-6956. (UGC CARE)
21. P. Rajamani, S. Chakravorti and K. Karthikeyan (September 2009), “A comparative study on the performance of modern function estimation tools for estimation of non-linear functions in high voltage system”, *Journal of Electrical Systems*, Vol. 5, No. 3, ISSN:1112-5209. (WoS)

4.2 CONFERENCE PUBLICATIONS

1. M. Premkumar, P. Kartheeswaran, Mohamed Abdul Rahman, K. Karthikeyan, “Implementation of Test Jig for E-Vehicles”, National Conference on Recent Advancements in Science, Engineering & Technologies (RASET 2023) organized by the Department of Electronics and Communication Engineering, Bannari Amman Institute of Technology, Sathyamangalam held from 03.05.2023 to 04.05.2023.
2. G. Hariharan, M. Mohamed Haji Ali, K. Karthikeyan, “Wireless power transfer system for moving electric vehicles using Magnetic Resonance”, National conference on “Recent trends in Engineering, Science and Management (RTESM - KCET 2022)”, organized by Kurinji College of Engineering and Technology on 09.06.2022.

3. T.R. Alagarsamy Yasvanth, S. Arun Kumar, K. Karthikeyan, “An embedded controller-based train control system”, International conference on Smart Technologies and Applications (ICSTA-2022) organized by Ramco Institute of Technology from 11.03.2022 to 12.03.2022.
4. T. Durga, S. Priya Dharsika, K. Yarshini, and K. Karthikeyan, “Building energy simulation and optimal energy management control strategy using Energy plus and MATLAB”, National Conference on Challenges and Innovation in Engineering and Technology -2021 (NWCCIET-2021) conducted by Ramco Institute of Technology from 19 Mar., 2021 to 20 Mar., 2021. **(Received Best Paper Award)**
5. A. Bhuvanesh, S. Kannan, S. Amosedinakaran, and K. Karthikeyan, “Generation Expansion Planning for India by Enhancing Renewables Integration”, International Web Conference on Smart Engineering Technologies (IWCSET-2020), held on 26-27 June 2020 at Ramco Institute of Technology, Rajapalayam.
6. S. Krish Sharan, R. Praveen Kumar, M. Thendral and K. Karthikeyan, “Smart Home Automation System”, National Conference on Signal Processing, Communication and Networking (NCSPCN 2020), held on 13-14 March 2020 at Department of Electronics and Communication Engineering, Bannari Amman Institute of Technology.
7. Karunamoorthy E, Kishore Kumar N, Lakshminarayanan M, Sudalaimanikandan M and K. Karthikeyan (2019), “Robot based Automatic Dustbin picker and Garbage collector”, National conference on Innovative Researches in Engineering, Science & Technology (NCIREST'19), held on March 7, 2019 at Department of Electrical and Electronics Engineering, PSR Rengasamy college of Engineering for Women, Sivakasi.
8. P. Moses Stephen, M. Ponraj, N. Sathesh, K. Balamurugan, K. Karthikeyan (2018), “Modified Cascaded Multilevel Inverter for Household Appliances”, National conference on Innovations in Communication Technology for Social Development (ICTSD – 2018), Department of ECE in association with IETE at Ramco Institute of Technology, Rajapalayam.
9. K. Karthikeyan, S. Kannan, and C. Thangaraj (2015), “Energy based Reliability index – A Tutorial”, National Conference on Innovations in Engineering, Science and Technology (NCIEST – 2015), Ramco Institute of Technology, Rajapalayam.

4.3 Patents

International Patent:

1. Title: Smart Uniform for Girl Children with Artificial Intelligence
Inventor(s): S. Periyanyagi, S. Kannan, B. Deepa Lakshmi, K. Karthikeyan, Moorthi Kanagaraj.
Status: Granted on 17.12.2020

Indian Patents:

2. Title: Method for Controlling Eco Friendly Mow-Bot
Inventor(s): P.Ramkumar, N.Siva Suriya, R.Ajith Kumar, D.Kathik Prabhu, A.Guna, K.Karthikeyan

Status: Filed on 17.02.2021, Published on 26.02.2021, FER reply submitted on 16.09.2021

4.4 Copyright

- Title: Industrial Automation using PLC: A Guidebook for beginners
Copyright owners: Mr. E. Thangam, Dr. K. Karthikeyan & Mr. D. Karthik Prabhu
Status: Granted on 28.02.2023

4.5 Book/Book chapter publications

Nil

5. Funded Projects

Sl. No.	Title of the project	Funding Agency	Duration	Amount	Status
1	Autonomous water tank cleaning robot for Indian Household	Tamil Nadu State Council for Science and Technology	3 months	10,000	Completed
2	Solar based Portable Bipolar Electrocautery Machine	MSME	-	15,00,000	Granted
3	Wind Energy Forecasting for Tamil Nadu using Machine learning algorithms	Ministry of New and Renewable Energy	3 years	45,31,640	Waiting for the result
4	Solar power based Mobile Electric Vehicle Charger	Tamil Nadu State Council for Science and Technology	2 years	4,50,000	Waiting for the result
5	Machine learning algorithms for wind energy forecasting in coastal region of Tamil Nadu	Science and Engineering Research Board (SERB)	3 years	51,41,304	Waiting for the result

6. Ph.D. guidance

Sl. No.	Scholar name	University	Topic	Status
NIL				

7. Short term Courses/Seminars /FDP/Workshop/Conference organized:

Sl. No.	Title of the event	Organized by	Date	
			From	To
1.	International conference on smart engineering for Renewable Energy Technologies – ICSERET - 2023	Department of EEE, Ramco Institute of Technology, Rajapalayam	24.03.2023	25.03.2023
2.	One day seminar on “VLSI Testing”	Department of EEE, Ramco Institute of Technology, Rajapalayam	04.03.2023	-
3.	Three-day FDP on “Bio-Inspired Optimization Techniques for Electrical Engineering Applications”	Department of EEE, Ramco Institute of Technology, Rajapalayam	21.02.2022	23.02.2022
4.	Two-day Hands-on training on Office Automation	Department of EEE, Ramco Institute of Technology, Rajapalayam	04.06.2021	05.06.2021
5.	Five-day FDP on “Demystifying Machine Learning Algorithm using Python”	RIT-AI Research Centre in association with RIT-IIC Cell, Ramco Institute of Technology, Rajapalayam	28.12.2020	02.01.2021
6.	Webinar on “Research material and reference management using Zotero”	RIT-Research Council	29.05.2020	-
7.	One day workshop on “MATLAB On-ramp”	Department of EEE, Ramco Institute of Technology, Rajapalayam	22.10.2018	-
8.	Three-day Workshop on “AI and Deep Learning”	Ramco Institute of Technology, Rajapalayam in association with Bennett University, Noida	14.09.2018	16.09.2018
9.	Anna University approved FDTP on “IC6501 Control Systems”	Department of EEE, Ramco Institute of Technology, Rajapalayam	04.06.2016	10.06.2016

8. Online Courses

Sl. No.	Course Title	University/Organization	Platform	Date
1.	Basic Electrical Circuits	IIT Hyderabad	NPTEL	27.11.2023
2.	Differential Equations for Engineers	The Hong Kong University of Science and Technology	Coursera	14.07.2023
3.	Control Engineering	IITM, Chennai	NPTEL	12.05.2023
4.	Introduction to Smart Grid	IIT, Roorkee	NPTEL	20.10.2022
5.	Mathematics for Machine Learning: Linear Algebra	Imperial College, London	Coursera	08.04.2022

Sl. No.	Course Title	University/Organization	Platform	Date
6.	NBA Accreditation and Teaching – Learning in Engineering (NATE)	IISc, Bangalore	NPTEL	12.09.2021
7.	Mastering Programming with MATLAB	Vanderbilt University	Coursera	09.09.2021
8.	Build a face recognition application using Python	Guvi	Guvi	24.04.2021
9.	LaTeX for Students, Engineers, and Scientists	IIT Bombay	edX	08.09.2020
10.	Operations Research: An Active Learning Approach	The Hong Kong Polytechnic University	edX	03.09.2020
11.	Transfer Functions and the Laplace Transform	Massachusetts Institute of Technology, USA	edX	01.09.2020
12.	Introduction to Programming with MATLAB	Vanderbilt University, USA	Coursera	08.08.2020
13.	Programming for Everybody (Getting Started with Python)	University of Michigan, USA	Coursera	01.08.2020
14.	Vector Calculus for Engineers	The Hong Kong University of Science and Technology	Coursera	26.06.2020
15.	Deep learning Onramp	Mathworks, USA	-	20.05.2020
16.	Deep learning fundamentals	IBM, USA	-	21.11.2019
17.	Circuits and Electronics 2: Amplification, Speed, and Delay	Massachusetts Institute of Technology, USA	edX	31.05.2019
18.	Calculus 1C: Coordinate Systems & Infinite Series	Massachusetts Institute of Technology, USA	edX	12.05.2019
19.	DAT280x: Essential Math for Machine Learning: R Edition	Microsoft, USA	edX	29.09.2018
20.	Calculus 1B: Integration	Massachusetts Institute of Technology, USA	edX	09.03.2018
21.	Calculus 1A: Differentiation	Massachusetts Institute of Technology, USA	edX	10.09.2017
22.	Electricity and Magnetism, Part-1	Rice University, USA	edX	01.06.2017
23.	Dynamics and Control	Polytechnic University of Valencia, Spain	Coursera	24.12.2016
24.	6.002.1x: Circuits and Electronics 1: Basic Circuit Analysis	Massachusetts Institute of Technology, USA	edX	09.05.2016

9. Guest Lectures Delivered

1. Delivered a hands on session on “**Reference management tools for Effective research – Mendeley**” at five-day national level faculty development program on Mastering the Art of Research Methodology: Empowering Faculty for Excellence organized by Rajapalayam Rajus’ college research cell, Dr. D. Ragupathy Raja memorial library and Society for the Advancement of Library and Information Sciences (SALIS) on 01.11.2023 through online.
2. Delivered a lecture on “**Mendeley – Reference Management Tool**” at one-week national level online faculty development programme on Advanced Research

- Methodology in Physical Sciences organized by Rajapalayam Rajus College, Rajapalayam on 07-10-2023 through online.
3. Delivered a lecture on **“Universal Human Values – Understanding harmony in Nature”** in Student Induction Program organized by Department of Electrical and Electronics Engineering, Ramco Institute of Technology, Rajapalayam on 25.09.2023.
 4. Delivered a lecture on **“Universal Human Values – Understanding harmony in Society”** in Student Induction Program organized by Department of Electrical and Electronics Engineering, Ramco Institute of Technology, Rajapalayam on 14.09.2023.
 5. Delivered a lecture on **“Universal Human Values – Self & body”** in Student Induction Program organized by Department of Computer Science and Business Systems, Ramco Institute of Technology, Rajapalayam on 13.09.2023.
 6. Delivered a hands on session on **“Reference Management Tool - Hands on Training”** at the two-day national level capacity building programme on **“Scholarly writing: Research Publications, Citation Analysis, Anti Plagisrism, Reference management tools and strategies of copyright and Patent (IPR)”** organized by Library, Ramco Institute of Technology, Rajapalayam on 4th & 5th August 2023.
 7. Delivered a webinar on **“Awareness Webinar on G20 – Presidency of India”** to NCC cadets of Ramco Institute of Technology, Rajapalayam on 26.02.2023.
 8. Delivered a webinar on **“Smart Grid Enabling Technologies”** to EEE students and faculty members organized by Department of Electrical and Electronics Engineering, Fatima Michael College of Engineering and Technology, Madurai on 20.02.2023.
 9. Delivered a lecture on **“Introduction to Smart Grid”** to EEE students organized by Department of Electrical and Electronics Engineering, Sri Vidya College of Engineering and Technology, Virudhunagar on 06.12.2022.
 10. Delivered a lecture on **“Grey wolf optimization algorithm with Hands-on training”** in Online Faculty development programme on Bio-Inspired Optimization Techniques for Electrical Engineering Applications organized by Department of Electrical and Electronics Engineering, Ramco Institute of Technology, Rajapalayam on 22.02.2022 through online.
 11. Delivered a lecture on **“Universal Human Values – Competition and Excellence & Self & body”** in Student Induction Program organized by Ramco Institute of Technology, Rajapalayam on 22.10.2021.
 12. Delivered a webinar on **“Overview of Learning Management System – CANVAS”** in Techritz’ 2021 organized by Ramco Institute of Technology, Rajapalayam on 19.02.2021 through online.
 13. Delivered a lecture on **“Logistic Regression – Hands on Practice with purchase prediction newly launched product in Google colab”** in Workshop on Machine Learning Algorithms organized by Department of Electronics and Communication Engineering, Ramco Institute of Technology, Rajapalayam on 11.01.2021 through online.
 14. Delivered a lecture on **“Logistic Regression with Hands on in Google colab for purchase prediction of newly launched product”** in Faculty Development Programme (FDP) on Demystifying Machine Learning Algorithm using Python organized by RIT-AI Research centre in association with RIT-IIC cell, Ramco Institute of Technology, Rajapalayam on 30.12.2020 through online.

15. Delivered a lecture on “**Machine Learning Categories**” in Faculty Development Programme (FDP) on Demystifying Machine Learning Algorithm using Python organized by RIT-AI Research centre in association with RIT-IIC cell, Ramco Institute of Technology, Rajapalayam on 28.12.2020 through online.
16. Delivered a lecture on “**Assessment & Evaluation (Rubrics)**” in Faculty Induction Program organized by Ramco Institute of Technology on 17.11.2020 at EEE Seminar Hall, Ramco Institute of Technology, Rajapalayam.
17. Delivered a lecture on “**Universal Human Values – Competition and Excellence & Self & body**” in Student Induction Program organized by Ramco Institute of Technology, Rajapalayam on 04.11.2020 through online.
18. Delivered on online webinar on “**Research Article and Reference Management using Zotero**” organized by the Department of Electrical and Electronics Engineering and RIT – RC council, Ramco Institute of Technology, Rajapalayam for faculty members and research scholars on 29.05.2020.
19. Delivered on online webinar on “**Simulations of DC/AC circuits using PhET tool**” organized by the Department of Electrical and Electronics Engineering Ramco Institute of Technology, Rajapalayam for school students on 13.05.2020.
20. Acted as a Resource person for a workshop “**MATLAB onramp**” organized by the RIT-IE(I) student chapter and RIT-IEEE student chapter on 10.03.2020 at Power system simulation laboratory, Ramco Institute of Technology.
21. Delivered a hands-on training session on “**Creation of diagrams, blocks and electrical circuits**” in a two-day workshop “**Latex document preparation language**” organized by the RIT-ISTE faculty and student chapter in association with Institution Innovation council on 25.01.2020 at Civil CAD laboratory, Ramco Institute of Technology, Rajapalayam.
22. Delivered a guest lecture on “**Linear Regression & Logistic Regression**” in Workshop on Artificial Intelligence and Machine Learning held at Ramco Institute of Technology, Rajapalayam on 04.01.2019.
23. Delivered a guest lecture on “**Electromagnetic Wave propagation in Lossy dielectrics and lossless dielectrics**” in Anna University approved FDTP on “EC8451-Electromagnetic Fields” held at Ramco Institute of Technology, Rajapalayam on 13.12.2018.
24. Delivered a guest lecture on “**Basic applications of operational amplifier**” in Anna University approved FDTP on “EC8453-Linear Integrated Circuits” held at Kalasalingam Institute of Technology, Krishnan koil on 16.11.2018.
25. Handled session on “**Reference writing and formatting in Research articles**” in Research sharing forum held at Ramco Institute of Technology, Rajapalayam on 31.10.2018.
26. Handled sessions on “**Introduction to Simulated Annealing and Genetic Algorithm**” in Anna University approved FDTP on “Data Analytics” held at Ramco Institute of Technology, Rajapalayam on 12.06.2018.
27. Handled sessions on “**Art of Teaching, Ethical Teaching and enjoyable teaching, Laws of good teaching, creative teaching-learning and ethical learning**” in AICTE sponsored FDP on “Human Values and Professional Ethics” held at Ramco Institute of Technology, Rajapalayam on 31.10.2017.

28. Handled a session on “**Resonance and Coupled circuits**” in Anna University approved FDTP on “EE8251 – Circuit Theory” held at Kamaraj College of Engineering and Technology, Virudhunagar on 29.11.2017.
29. Handled a session on “**Applications of Transforms in Electrical Engineering**” in Anna University approved FDTP on “MA6351-Transforms and Partial Differential Equations” held at Ramco Institute of Technology, Rajapalayam on 17.06.2017.
30. Delivered a lecture on “**Interpersonal relationship between Class Advisor and Students**” in two-day faculty development programme on “Introspection of Teaching Learning Process” held at Ramco Institute of Technology, Rajapalayam on 30.12.2014.

10. Short term Courses / Seminars /FDP/Workshop/Conference Attended:

FDP	Workshop	Conference	Seminar	Webinar	Total
25	28	5	2	27	87

10.1 Faculty Development Programme (FDP)

Sl. No.	Title of the FDP	Organized by	Date	
			From	To
1.	ATAL FDP on “Recent advancement in Electric vehicle Technologies and Energy storage”	Noorul Islam college of Engineering, Nagercoil	11.12.2023	16.12.2023
2.	LPB01 – Reverse Engineering	LEAP, IITM Incubation cell, IITM Research Park	08.09.2023	09.09.2023
3.	Design of Electric Vehicles using MATLAB Simulink	Ramco Institute of Technology, Rajapalayam	24.07.2023	26.07.2023
4.	Control Engineering	IITM, Chennai	01.01.2023	12.05.2023
5.	Digital Marketing	NSE Academy, Tamil Nadu skill development corporation through the Naan Mudhalvan Program held at Thiagarajar College of Engineering, Madurai	13.02.2023	17.02.2023
6.	Introduction to Smart Grid	IIT, Roorkee	01.07.2022	30.09.2022
7.	AICTE sponsored FDP on Universal Human Values – II	Sri Sairam Engineering College, Chennai	26.07.2022	30.07.2022
8.	Artificial Intelligence	Microsoft – India, edunet foundation & SAP – India under Tech Saksham Program	24.01.2022	29.01.2022
9.	ATAL FDP on “Smart Grid – Drivers, Challenges and Opportunities”	SASTRA (Deemed to be University), Tanjore	04.01.2022	08.01.2022

Sl. No.	Title of the FDP	Organized by	Date	
			From	To
10.	ATAL FDP on “Planning and Operation of Smart Grids: Recent Trends and Developments”	TKM College of Engineering	06.12.2021	10.12.2021
11.	Automation System Design & Simulation using Automation Studio Software	Famic Technologies Inc., Canada in association with DELLSOFT Technologies Pvt. Ltd., New Delhi	17.09.2021	-
12.	NBA Accreditation and Teaching-Learning in Engineering (NATE)	Indian Institute of Science (IISc), Bangalore	01.01.2021	30.04.2021
13.	C - Programming	Department of CSE, RIT in association with IE(I)	06.01.2021	12.02.2021
14.	Outcome based Assessment	National Institute of Technical Teachers Training & Research, Chennai	07.12.2020	11.12.2020
15.	ATAL FDP on “Systems Engineering”	National Institute of Technology, Delhi	26.10.2020	30.10.2020
16.	ATAL FDP on “Energy Engineering”	National Institute of Technology, Silchar	26.09.2020	30.09.2020
17.	Research Challenges and Innovations in Renewable Energy Systems	Aarupadai Veedu Institute of Technology	11.05.2020	16.05.2020
18.	Signals and Systems	Department of ECE & EEE in association with IETE and IE(I), Ramco Institute of Technology, Rajapalayam	13.06.2018	18.06.2018
19.	TEQIP – II sponsored course on “Foundation Skills in Integrated Product Development (FSIPD)”	Alagappa Chettiar College of Engineering & Technology, Karaikudi in association with Anna University and Skills council, NASSCOM.	26.03.2016	30.03.2016
20.	Statistical Modeling and Simulation	Kalasalingam University, Krishnankoil	28.08.2009	30.08.2009
21.	MHRD / AICTE sponsored winter school on “Techniques of Video Production for E-Learning”	National Institute of Technical Teachers Training & Research, Chennai	23.03.2009	28.03.2009
22.	Comprehension	Kurinji College of Engineering and Technology, Manapparai, Tiruchirappalli.	14.08.2004	15.08.2004
23.	AICTE – ISTE sponsored STTP on “Simulation of Power and Power Electronic System using PSCAD, ETAP, and MATLAB / SIMULINK”	Karunya Institute of Technology and Sciences, Coimbatore	24.05.2004	04.06.2004

Sl. No.	Title of the FDP	Organized by	Date	
			From	To
24.	Control System Engineering	Arulmigu Kalasalingam College of Engineering, Anand Nagar, Krishnankoil	10.11.2003	15.11.2003
25.	AICTE sponsored FDP on “Impact of Educational Technology on Teaching – Learning Process”	Dr. Mahalingam College of Engineering and Technology, Pollachi	21.04.2003	03.05.2003

10.2 Workshop

Sl. No.	Title of the workshop	Organized by	Date	
			From	To
1.	Microsoft Office Automation	Skill Nation	14.05.2023	-
2.	Microsoft PowerPoint	Skill Nation	16.04.2023	-
3.	TinyML for scientific use cases	Department of Electrical and Electronics Engineering, Ramco Institute of Technology, Rajapalayam	25.07.2022	-
4.	Mendeley	Elsevier Researcher Academy	10.07.2021	
5.	LaTeX for Research Publications and Thesis Writing	Karpagam College of Engineering, Coimbatore	29.05.2021	-
6.	Orientation Training Programme for the Mentors	AICTE under National Initiative for Technical Teachers Training	01.02.2021	05.02.2021
7.	Inculcating Universal Human Values in Technical Education	AICTE	10.08.2020	14.08.2020
8.	Aligning Yourself to the Publishing Process	Elsevier Researcher Academy	23.06.2020	24.06.2020
9.	Multi Criteria Decision Making	REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu	23.04.2020	25.04.2020
10.	Hands on Training on “Analog Discovery kit”	Department of ECE, Ramco Institute of Technology in association with National Instruments	22.06.2019	-
11.	Energy Conservation Building Code	Star Residency, Near Anna Bus stand, Madurai.	12.06.2019	14.06.2019
12.	IUCEE International Engineering Educator’s Certification Program phase-I workshop	Thiagarajar College of Engineering, Madurai.	01.04.2019	03.04.2019
13.	Internet of Things with Smart Grid	Central Power Research Institute, Bangalore	29.11.2018	30.11.2018
14.	Revised Assessment & Accreditation Framework of NAAC	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.	27.10.2018	-

Sl. No.	Title of the workshop	Organized by	Date	
			From	To
15.	Artificial Intelligence and Deep learning	Saintgits College of Engineering, Kottayam, Kerala	25.06.2018	27.06.2018
16.	Smart Grid and Micro Grid Systems – Research Issues	Department of EEE, Mepco Schlenk Engineering College, Sivakasi	04.05.2018	05.05.2018
17.	Hardware in the loop simulation for Power Electronics and Control applications using LabVIEW	Department of EEE, Mepco Schlenk Engineering College, Sivakasi	16.12.2016	17.12.2016
18.	Awareness & Internal Auditor Training on ISO 9001:2015	TUV Rheinland at Ramco Institute of Technology, Rajapalayam	18.12.2015	19.12.2015
19.	Two-week ISTE workshop on “Control Systems”	IIT Kharagpur under the National Mission on Education through ICT (MHRD, Govt. of India) at Mepco Schlenk Engineering College, Sivakasi	02.12.2014	12.12.2014
20.	Modelling and Simulation of Electrical Power System	NPTEL, IIT Madras at Loyola-ICAM College of Engineering and Technology, Chennai	19.09.2014	20.09.2014
21.	Hands-on workshop on “SCILAB for engineering applications”	Kamaraj College of Engineering and Technology, Virudhunagar	08.05.2014	-
22.	Life Skill Management	Kalasalingam University	03.02.2013	-
23.	KLU-SAKSHAM	Kalasalingam University	17.03.2012	-
24.	Art of Counseling	Kalasalingam University	18.02.2012	19.02.2012
25.	MOODLE software	Kalasalingam University	21.01.2012	-
26.	Soft Computing	Kalasalingam University	20.08.2011	-
27.	Software Quality	NASSCOM at Kalasalingam University	01.08.2008	02.08.2008
28.	Electric Circuits Laboratory course	K.L.N. College of Engineering, Pottapalayam	27.12.2004	28.12.2004

10.3 Conferences

Sl. No.	Title of the conference	Organized by	Date	
			From	To
1.	Tenth international conference on Transformation in Engineering Education (ICTIEE-2023)	Indo Universal Collaboration for Engineering Education (IUCEE) at Vidyavardhaka college of engineering, Mysuru	05.01.2023	08.01.2023

Sl. No.	Title of the conference	Organized by	Date	
			From	To
2.	Eighth International Conference on Transformation in Engineering Education (ICTIEE-2021)	Indo Universal Collaboration for Engineering Education (IUCEE)	08.01.2021	10.01.2021
3.	Joint International Conference on Communication, Computing and Power Technologies (ICCCPT 2015) and Artificial Intelligence and Evolutionary Computations in Engineering Systems (ICAIECES 2015)	Department of Electrical and Electronics Engineering, Velammal Engineering College, Chennai	22.04.2015	23.04.2015
4.	National Conference on Innovations in Engineering, Science and Technology, (NCIEST – 2015)	Ramco Institute of Technology, Rajapalayam	06.03.2015	07.03.2015
5.	IEEE Calcutta Section conference (CALCON'05)	Jadavpur University, Kolkata	02.12.2005	03.12.2005

10.4 Seminar

Sl. No.	Title of the Seminar	Organized by	Date	
			From	To
1	Two-day seminar on “Intelligent Electric Power Grid”	Department of EEE, Ramco Institute of Technology.	28.12.2018	29.12.2018
2	National level seminar on “Research and Consultancy Services”	Kalasalingam University	30.12.2011	-

10.5 Webinar

Sl. No.	Title of the Webinar	Organized by	Date
1.	QuillBot: An Effective Writing Tool	Central Library and Research Council, Ramco Institute of Technology, Rajapalayam	28.04.2024
2.	Extramural Lecture Series (ELS)-ELS002 - Integrating the CDIO Principles Through Effective Teaching-Learning Activities	Ramco Institute of Technology, Rajapalayam	29.02.2024

Sl. No.	Title of the Webinar	Organized by	Date
3.	Model, Simulate and analyze the performance characteristics of Lead Acid Batteries	Ramco Institute of Technology, Rajapalayam	23.11.2023
4.	Extramural Lecture Series (ELS)-ELS001 - Integrated Curriculum Development Methodology for Engineering using CDIO Framework: A Case Study	Ramco Institute of Technology, Rajapalayam	16.11.2023
5.	Energy Management in Home	ECQC, ISTE and IIC of Ramco Institute of Technology, Rajapalayam	17.12.2022
6.	Transactive Energy Framework for Community Microgrid with Demand Response Management	IEEE PES Madras Chapter & Department of EEE, SSN College of Engineering, Chennai	30.11.2022
7.	Complete Personality Development	NSDF, Shimla	23.07.2021
8.	Implementation of National Educational Policy - 2020	RIT-IQAC, ISIE-RIT-SRA of Ramco Institute of Technology, Rajapalayam	24.03.2021
9.	How to Publish Good Research Articles in High Impact Journals	Department of Physics, Ramco Institute of Technology, Rajapalayam	12.01.2021
10.	Intellectual Property Rights	ISTE and IIC of Ramco Institute of Technology	04.12.2020
11.	Orientation program on "Patent Drafting: Do's and Don'ts"	RIT-RC, RIT-IIC & RIT-ISTE Faculty chapter, Ramco Institute of Technology, Rajapalayam	01.12.2020
12.	Recent trends in Energy Storage	IEEE Madras section in association with SNS college of Technology, Coimbatore	18.11.2020
13.	Orientation program on "Patent Search and Drafting"	RIT-RC, RIT-IIC & RIT-ISTE Faculty chapter, Ramco Institute of Technology, Rajapalayam	24.10.2020
14.	Multilevel Inverter	Ramco Institute of Technology, Rajapalayam	10.06.2020
15.	Software Qualification as a Career	Ramco Institute of Technology, Rajapalayam	09.06.2020
16.	Overview of IC Fabrication Cycle	Ramco Institute of Technology, Rajapalayam	08.06.2020
17.	Layman Technique on Design of Solar PV system for Home	Ramco Institute of Technology, Rajapalayam	05.06.2020
18.	Energy Efficient Lighting	Ramco Institute of Technology, Rajapalayam	04.06.2020
19.	Digital Transformation	Ramco Institute of Technology, Rajapalayam	03.06.2020
20.	Energy Audit and Management in Industrial Motors	Ramco Institute of Technology, Rajapalayam	02.06.2020

Sl. No.	Title of the Webinar	Organized by	Date
21.	True Potential of Green Building	Ramco Institute of Technology, Rajapalayam	01.06.2020
22.	How to write a good research project proposal	Department of Electronics and Communication Engineering, Punjabi University, Patiala in collaboration with IIT Kanpur	31.05.2020
23.	What the best college teachers do	Ramco Institute of Technology, Rajapalayam	29.05.2020
24.	Role of Smart Grid in Facilitating the integration of Renewables	IEEE India council	24.05.2020
25.	Role of IoT in Smart Devices and Its applications	AutoDesk	16.05.2020
26.	How to Formulate a Research Problem?	Ramco Institute of Technology, Rajapalayam	13.05.2020
27.	Research Paper Publications using Tools and Techniques	Power Innovative Research Consultancy, Chennai	13.05.2020
28.	Awareness on Pandemic Covid - 19	Ramco Institute of Technology, Rajapalayam	12.05.2020
29.	Effective Use of Learning Management System	Ramco Institute of Technology, Rajapalayam	09.05.2020
30.	Machine Learning using Python	IETE, Mumbai in association with PANTECH solutions	02.05.2020
31.	Deep learning model compression and Optimization	KPR Institute of Engineering and Technology with LeadingIndia.ai	25.02.2020

11. Industrial Training

1. Three days' industrial visit to the company Sunbeam Generators Pvt. Ltd., Pondicherry from 03.02.2022 to 05.02.2022.
2. Three days Academia – Industry Interaction at The Ramco Cements Limited, Alathiyur from 31.01.2019 to 02.02.2019.
3. Three days industrial training at Electrical department, Rajapalayam Mills Limited, Rajapalayam from 28.06.2018 to 30.06.2018.
4. Five days industrial training on “**Train the Trainer**” program for STE SDC course at Tessolve Semiconductor Pvt. Ltd., Bangalore from 20.11.2017 to 24.11.2017.
5. Three days industrial training at Electrical Engineering department, The Ramco Cements Limited, Alathiyur from 15.05.2017 to 17.05.2017.

12. Membership in Professional societies

- Member in Institute of Electrical and Electronics Engineers (**IEEE**) through **92200846** from 31.12.2011 onwards.
- Life Member in Institution of Engineers (**IE(I)**) through **M-1644879** from 31.03.2019 onwards

- Life Member in Indian Society for Technical Education (**ISTE**) through **LM59077** from 2008 onwards.
- Life Member in Systems Society of India (**SSI**) through **LM32046** from 30.11.2012 onwards.
- Life Member in International Association of Computer Science and Information Technology (**IACSIT**) through **80349272** from 23.07.2014 onwards.
- Life Member in International Society for Research and Development (**ISRD**) through **M3140900416** from 31.01.2015 onwards.
- Life Member in International Association of Engineers (**IAENG**) through **119129** from 06.02.2012 onwards.
- Member in IAENG Society of Electrical Engineering. (10.02.2012 onwards)
- Member in IAENG Society of Operations Research. (10.02.2012 onwards)
- Member in IAENG Society of Scientific Computing. (10.02.2012 onwards)

13. Awards, Recognition & Achievements

- Appointed as a Member of Prevaluation Board meeting for the UG/PG Degree Examinations held in April/May 2023 for Electrical and Electronics Board.
- Department Advisory Board member for the Department of Electrical and Electronics Engineering, J P College of Engineering, Aiyakudy, Tenkasi from March 2023 to till date.
- Received a certificate of appreciation from Tessolve Semiconductors Pvt. Ltd., Bangalore for being a best trainer for the Tessolve Semiconductor Test Engineering course during the academic year 2022-23.
- Recognized as a best class advisor among all final year classes in Ramco Institute of Technology, Rajapalayam during the Academic year 2019-2020. (Date of issue: 05.09.2020)
- Awarded with Cash prize of Rs.2000/- and a certificate for producing the 100% results in May/June 2017 Anna University, Chennai examinations for the subject “EE6201 – Circuit Theory”. (Date of issue: 26.03.2018)
- Awarded with Shield and Certificate for being the academic topper in the B.E (EEE) final year course in the year 2001-02. (Date of issue: 14.04.2003).
- Reviewer for the Journals: IEEE Access, Electric Power Components and Systems, International Journal of Energy Research, International Transactions on Electrical Energy Systems, Journal of Healthcare Engineering, Computational Intelligence and Neuroscience, Wireless Communications and Mobile Computing, Contrast Media & Molecular Imaging, Journal of Supercomputing and Scientific Programming.

14. Professional Activities

- Acted as a **session chair** for the International Conference on Artificial Intelligence, Cybersecurity and Game Design (**IGAICGD-2024**) organized by Ramco Institute of Technology, Rajapalayam and Ball State University, Muncie, USA during February 23-25, 2024.

- Acted as a **Reviewer** to the International Conference on Transformations in Engineering Education 2024 (**ICTIEE 2024**) held at KLE Technological University, Hubballi, India from January 2-4, 2024
- Acted as a **Technical Program Committee member** in the 3rd International conference on New Energy and Power Engineering (ICNEPE-2023) held in Huzhou Nanxun Innovation Research Institute, The College of Electrical Engineering, Zhejiang University of Water Resources and Electric Power School of Electrical Engineering, Nantong University, China during November 24-26, 2023.
- Acted as a **Technical Program Committee member** in the 2nd International conference on Energy Internet and Power System (ICEIPS-2023) held in North China Electric Power University, Chengdu, China during August 4-6, 2023.
- Acted as a **Reviewer** in the International Conference on Smart Engineering for Renewable Energy Technologies 2023 (**ICSERET-2023**) held in Ramco Institute of Technology, Rajapalayam during 24-25 March 2023.
- Acted as a **Reviewer** in the 2nd International Conference on Distributed Computing and Electrical Circuits and Electronics 2023 (**ICDCECE-2023**) held in Ballari Institute of Technology and Management, Ballari during 29-30 April 2023.
- Acted as a **Reviewer** in the International Conference on Recent Trends in Microelectronics, Automation, Computing and Communication Systems (**ICMACC-2022**) held in VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, India during 28-30 December 2022.
- Acted as a **Reviewer** in the IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (**IATMSI-2022**), organized by IEEE MP Section and ABV-IIITM Gwalior, India on 21-23 December 2022.
- Acted as an **Evaluator** for the **MSME Idea Hackathon 2022** hosted by the Ramco Institute of Technology, Rajapalayam from 06.04.2022 to 07.04.2022.
- Acted as a **session chair** for the international conference on Smart Technologies and Applications (**ICSTA-2022**) organized by Ramco Institute of Technology, Rajapalayam on 11.03.2022.
- Acted as a **Technical Program Committee member** in the International conference on Artificial Intelligence and Applications (ICAIA-2021) held in Suzhou, China during October 15-17, 2021.
- One-month **Research Sabbatical Programme at NVIDIA Bennett Research Center** on Artificial Intelligence at Department of Computer Science Engineering, Bennett University, Greater Noida from 10.11.2019 to 10.12.2019 under the mentorship of Dr. Sridhar Swaminathan.
- Acted as a **Jury** for the Internal Hackathon for **Smart India Hackathon 2020** hosted by the Ramco Institute of Technology, Rajapalayam.
- Acted as a **Judge for the paper presentation** contest titled “**Industry 4.0**” organised for the various polytechnic college students in State level technical symposium “**PACR TECHFEST 2020**” conducted by PAC Ramasamy Raja polytechnic college, Rajapalayam on 31.01.2020.

- Acted as a **Chief Guest** for Valedictory Function in Anna University approved Seven Day FDTP on “**EE8251 – Circuit Theory**” conducted by Kamaraj College of Engineering and Technology, Virudhunagar on 29th November 2017.

15. Any others (Board of studies/Governing Council/Staff Selection/ Reviewer/other duties)

1. Department Advisory Board member for the Department of Electrical and Electronics Engineering, J P College of Engineering, Aiyakudy, Tenkasi from March 2023 to till date.
2. Department Advisory Committee member for the Department of Mechanical Engineering, Ramco Institute of Technology from November 2020 to till date.
3. Program Assessment & Quality Improvement Committee member for the Department of Electrical and Electronics Engineering, Ramco Institute of Technology from November 2019 to till date.
4. Department Advisory Committee member for the Department of Electrical and Electronics Engineering, Ramco Institute of Technology from February 2019 to September 2021.
5. Reviewer for the Journals: IEEE Access, Electric Power Components and Systems, International Journal of Energy Research, International Transactions on Electrical Energy Systems, Journal of Healthcare Engineering, Computational Intelligence and Neuroscience, Wireless Communications and Mobile Computing, Contrast Media & Molecular Imaging, Journal of Supercomputing and Scientific Programming.