

Faculty Profile

Name Dr.P.Samuel Pakianathan
Designation Assistant Professor Senior Grade
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1. Personal Details

Age : 39
Date of Birth : 07/06/1987
Sex & Marital Status : Male / Married
Citizenship : Indian
Religion : Christian
Cast : Nadar

1.1 Qualification:

Degree	Programme and Specialization	Class /CGPA or Percentage	Month & Year of Passing	Institute/University
PhD	Electrical Engineering	-	October 2023	Anna University, Chennai
M.E	HVE	1 st Class with Distinction	June 2013	National Engineering College, Kovilpatti.
B.E	EEE	1 st Class	April 2009	Government College of Engineering, Tirunelveli.

1.2 Industrial Experience:

Organization	Designation	Nature of Duties	Period
Dalmia Cements Bharat Limited, Dalmiapuram, Trichy.	Plant Engineer	Planning & Plant Maintenance.	2 Years

1.3 Academic Experience:

Organization	Designation	Period
National Engineering College, Kovilpatti	Assistant Professor	13.05.2013 to 27.08.2023
National Engineering College, Kovilpatti	Assistant Professor Senior Grade	28.08.2023 to till date

2. Academic Identity:

ORCID ID	0000-0002-8843-203X
Scopus ID	55754186000
Google Scholar ID	https://scholar.google.co.in/citations?user=VEe5BZQAAAAJ&hl=en
Vidwan ID	2114120
Researcher ID	44334
Citations	137
H - Index	5
i-10 index	3
AICTE id	1-2187289324
Anna University Faculty Code	9576082

3. Academic Achievements

3.1 Courses taught:

Course Title	U.G. or P.G.
Electromagnetic Field Computation and Modelling	P.G.
Insulation Design of High Voltage Power Apparatus	P.G.
Electrical Machines-II	U.G.
Protection and switchgear	U.G.
Electronic Devices and Circuits	U.G.
Design of Electrical Apparatus	U.G.
High Voltage Engineering	U.G.
Electrical Machines Laboratory	U.G.
Electronic Devices Laboratory	U.G.
Microprocessor and Microcontroller Laboratory	U.G.
Power System simulation and High Voltage laboratory	U.G.
High Voltage Laboratory I	P.G.
High Voltage Laboratory II	P.G.
Research Paper and Patent Review Seminar	P.G.
Electronic Circuits	U.G.
Electronic Circuits Laboratory	U.G.
Power Quality	U.G.
Professional Ethics and Human Values	U.G.
Analog Electronics	U.G.
Insulation Technology	P.G.
Comprehension Lab	U.G.
Analog Electronics	U.G.
Digital Electronics	U.G.
Electromagnetic Interference and Electromagnetic Compatibility	P.G.
Basic Electrical and Electronics engineering`	U.G.
Switchgear and Protection	U.G.

3.2 Short-term Courses / Seminars / Conferences/ Workshops Attended:

Sl. No	Title	Period	venue
1	TEQIP, Tribal Development Plan, Communication skills	1 Day 9 th August, 2007	Government College of Engineering, Tirunelveli
2	TEQIP, Tribal Development Plan, Training the Brain	2 Days 13 th and 14 th August, 2007	Government College of Engineering, Tirunelveli
3	TEQIP, Tribal Development Plan, Troubleshooting on Electrical Machines	1 Day 5 th September, 2007	Government College of Engineering, Tirunelveli
4	Cement Manufacturing Technology	2 Months 27 th July to 25 th September, 2009	National Council for Cement and Building Materials, New Delhi.
5	Anti-Tobacco Awareness Training	1 Day 12 th February 2009	Government College of Engineering, Tirunelveli
6	Maintenance of Electrical Equipment	2 Days 22 nd and 23 rd February, 2010	Regional Training Centre, Dalmiapuram, Trichy
7	CSIR sponsored National Level Technical Seminar on "Design, Modelling and Control of Electrical Machines using Artificial Intelligence"	2 Days 28 th and 29 th October 2011	National Engineering College, Kovilpatti.
8	DST sponsored National Level Technical Seminar on "Application of Artificial Intelligence Techniques in Renewable Energy Systems"	2 Days 20 th and 21 st January 2012	National Engineering College, Kovilpatti.
9	Technical Seminar on "Media Security: A set-theoretic framework for Data Hiding" delivered by Dr. Gaurav Sharma, Professor, Department of Electrical and Computer Engineering, University of Rochester, USA.	1 Day 29 th August 2012	National Engineering College, Kovilpatti.
10	Training Programme on "Introduction to Industrial Electrical System"	3 Days May 21 st to 23 rd -2013	L & T Switchgear Training Centre, Coonoor.
11	One-day workshop on "High Voltage Insulation Testing, Measurement and Simulation Techniques"	1 Day 28 th September 2013	SASTRA University, Thanjavur
12	AICTE sponsored on day CD-Cell workshop on "Research Themes on High Voltage Technology"	1 Day 8 th February 2014	Indian Institute of Technology, Madras
13	FDTP on Electromagnetic Theory	12 th June to 17 th June 2015	Vellalar College of Engineering, Erode

14	FDTP on Design of Electrical Apparatus	7 days, 16 th to 25 December 2016	University College of Engineering, Dindigul
15	One-week industrial know-how program	08 th May to 13 th May 2017	Andrew Yule Company Limited, Chennai.
16	Training on teaching learning skills	22 nd may to 27 th May 2017	NITTTRC, Chennai
17	Technology-enabled learning	28 th may to 30 th May 2017	NITTTRC, Chennai
18	OBE and its implementation	31 st May 2017	National Engineering College, Kovilpatti
19	One-day Workshop on 'High Voltage Engineering-Adaptability to Smart Grid"	14 th July 2017	IIT Madras & Section-V committee of INAE, New Delhi.
20	Two weeks of AICTE-sponsored faculty development program on "Recent trends and Applications of High Voltage Engineering"	6 th - 19 th November 2017	National Engineering College, Kovilpatti
21	One-week Industrial Know-how Programme	07 th to 11 th March 2018	Associated Transformer Private Limited, Dindigul
22	Short-term course (STC) entitled" Recent trends in condition monitoring of power apparatus and systems"	19 th to 24 th February 2018	IIT Madras, Chennai
23	Short-term training program on "Introduction to smart materials with energy harvesting applications."	02 nd to 07 th September 2018	IIT Madras, Chennai
24	One-week AICTE sponsored faculty development program on "Hands-on approach to semiconductor device physics education "	06 th to 10 th May 2019	IIT Bombay, Buwai
25	One-week FDP on Recent Advances in Condition Monitoring of Power Equipment	25 th to 30 th January 2021	National Institute Of Technology Calicut.
26	One week Industrial Know how Programme	22 nd to 26 th February 2021	Global Power Research Institute, Cuddalore
27	One Week Faculty Development Program on "Electronic Circuits I"	24.05.2021 to 29.05.2021	Anna University, Chennai
28	One Week Industrial Know How Programme	10.01.2022 to 14.01.2022	Progen Renewable Private Limited, Coimbatore.
29	One-week International Faculty Development Programme on Recent Computational Strategies for Condition Monitoring of High Voltage Equipment	18.09.2021 to 21.09.2021	Electronics and ICT Academy, National Institute of Technologies, Patna

30	One-week Industrial Know-how program.	09.08.2022 to 13.08.2022	Regen Infrastructure and Services Private Limited, Theni
31	One-week Industrial Know-how program.	21.11.2023 to 25.11.2023	Soorya Electro Components Private Limited, Muppandal
32	One-week Faculty development program SERB sponsored Course on Diagnostic Monitoring of High Voltage Power Equipment"	12.11.2024 to 16.11.2024	National Institute of Technology, Rourkela, Orissa
33	One-week Faculty Development Program on Insulating and Multi-functional dielectrics	20.09.2025 to 25.08.2025	Indian Institute of Technology, Kanpur

3.3 Short-term Workshops Organized:

Sl.No	Title	Period	Venue	Participants
1	AICTE Sponsored Faculty Development Programme on "Recent Trends and Applications of High Voltage Engineering"	14 Days 6 th to 19 th November 2017	National Engineering College, Kovilpatti	34

3.4 Online Certification Completed:

NPTEL:

S. No	Certification	Period	Organizers
1.	NPTEL Online Certification on "Introduction to Research"	January-February 2016 (10 Hours)	Indian Institute of Technology (IIT), Madras
2.	NPTEL Online Certification on "Electrical Machines - I "	January - February 2017 (12 weeks)	Indian Institute of Technology (IIT), Kharakpur
3.	NPTEL Online Certification on "Fundamentals of Electrical Engineering"	October 2018 (12 weeks)	Indian Institute of Technology (IIT), Kharakpur
4.	NPTEL Online Certification on "Basic Electric Circuits"	October 2019 (12 weeks)	Indian Institute of Technology (IIT), Madras
5.	NPTEL Online Certification on "Recent Advances in Transmission Insulator"	April 2020 (4 weeks)	Indian Institute of Science, Bangalore.
6.	NPTEL Online Certification on "Advances in UHV Transmission and Distribution"	November 2020 (12 weeks)	Indian Institute of Science, Bangalore.
7.	NPTEL Online Certification on "Digital Circuits"	October 2021 (12 weeks)	Indian Institute of Technology, Kharagpur
8.	NPTEL Online Certification on "Electric Vehicles Part-I"	March 2022 (4 weeks)	Indian Institute of Technology (IIT), Madras
9.	NPTEL online Certification on "Fundamentals of Electronic	APRIL 2023 (8 weeks)	Indian Institute of Technology (IIT), Madras

	Materials and Devices”		
10.	NPTEL Online certification on “Introduction to Machine Learning”	MAR 2024 (8 weeks)	Indian Institute of Technology (IIT), Madras
11.	NPTEL Online certification on “Probability and Statistics”	MAR 2024 (4 weeks)	Indian Institute of Technology (IIT), Madras
12.	NPTEL Online Certification on “Design Thinking”	APRIL 2024 (4 weeks)	Indian Institute of Technology (IIT), Madras
13.	NPTEL online certification on “ Fuzzy Logic and Neural Networks “	March 2025	Indian Institute of Technology, Kharagpur
14.	NPTE: online certification on “Electronics Enclosures Thermal issues”	March 2026	Indian Institute of Science, Bangalore.

MATLAB:

S. No	Certification	Period	Organizers
1	MATLAB onramp	-	Mathworks
2	Machine Learning with MATLAB	17 th Feb 2023	Mathworks
3	MATLAB Fundamentals	16 th Feb 2023	Mathworks

3.5 Projects Guided/Co-Guided:

Sl.No.	Title of the project	UG/PG	Year	Guide/ Co- Guide
1	Detection And Classification of Transmission Line Faults Using Signal Processing and AI Techniques	UG	2026	Guide
2	IoT-enabled Spy Robot with Landmine Detection using ESP32-Cam	UG	2025	Guide
3	Automatic forklift	UG	2024	Guide
4	Power transformer performance enhancement methods	PG	2024	Guide
5	A Human-Controlling Robot Using a Bluetooth Module	UG	2023	Guide
6	Analysis of significant parameters of miscellaneous insulating fluids with antioxidants	UG	2022	Guide
7	Analysis Of Vegetable Oils and Their Mixtures as An Alternative For Transformer Oil	UG	2021	Guide
8	Smart Sensor Using Bike Helmet to Reduce Accident	UG	2021	Guide
9	Smart Management of Streetlight for Energy Conservation	UG	2020	Guide
10	Improving the Performance of vegetable oil with antioxidants for transformer applications	UG	2019	Guide
11	Accident Prevention and Security System in a vehicle	UG	2018	Guide

12	Analysis of critical parameters of fresh mineral oil using Antioxidants	PG	2018	Co-Guide
13	Automatic Star-Delta Starter	UG	2017	Guide
14	Enhancing the properties of used mineral oil and fresh vegetable oil	PG	2017	Co-Guide
15	Theft notification of the vehicle over SMS to the owner, who can stop the engine remotely	UG	2016	Guide
16	RFID-based library management system	UG	2015	Guide
17	Electrical conductivity and tensile strength of carbon nanotube-reinforced aluminum material	PG	2015	Co-Guide

3.6 Guest Lecture Delivered:

Sl.No	Topic	College	Month & Year
1	Topic on "HVDC"	Thamirabharani Engineering College, Tirunelveli	March 2021
2	Enhancement of Dielectric properties in transformer Oil	National Engineering College, Kovilpatti	February 2021
3	How to score more?	Sharon Matriculation Higher Secondary School, Vilathikulam	March 2023
4	Health, Hygiene and Communication Skills	Vivekananda Community College, Madurai	January 2024
5	Introduction to Liquid Dielectrics	PSN College of Engineering and Technology, Melathidiyoor, Tirunelveli	May 2024
6	Protection and Switchgear	Francis Xavier Engineering College, Tirunelveli	August 2024
7	Power Generation, Transmission and Distribution	Francis Xavier Engineering College, Tirunelveli	February 2026

3.7 Online Webinars attended:

Sl.No.	Topic	Organizer	Date
1	Introduction to Electrical Power System Network	SKILL - LYNC	26.05.2021
2	Transformer Protection Testing	OMICRON MEA Electronics	30.04.2021
3	Time-optimized power transformer diagnostics with TESTRANO 600- Part 4	OMICRON	23.06.2020
4	Instrument Transformer Diagnostics with CPC 100 using PTM	OMICRON	12.06.2020
5	Partial Discharge Measurements	OMICRON	10.06.2020
6	Time-Optimized power transformer with TESTRANO 600- Part 3	OMICRON	09.06.2020

4. Research Achievements

4.1 International Conference Publication

S. No	Title of the Paper	Name of the Conference	Organizer	Month & Year	Publication
1	Enhancement of Critical Characteristics of Vegetable Oil and Used Mineral Oil of Power Transformer	IEEE International Conference on Circuits, Power and Computing Technologies, ICCPCT-2013	Noorul Islam Centre for Higher Education, Kumaracoil	21 st and 22 nd March 2013	Published in IEEE Xplore Digital Library. Conference Proceedings of ICCPCT 2013 ISSN: 978-1-4673-4920-8/13
2	Investigation of critical parameters of mixed insulating fluids with antioxidants	IEEE International Conference on Circuits, Power and Computing Technologies, ICCPCT-2014	Noorul Islam Centre for Higher Education, Kumaracoil	21 st and 22 nd March 2014	Published in IEEE Xplore Digital Library. Conference Proceedings of ICCPCT 2014 ISSN: 800-1-4673-4920-3/14
3	Electrical Conductivity Of Carbon Nano Tubes Reinforced Aluminium Composites For Electrical Applications	International Conference on New Frontiers in Chemical, Energy and Environmental Engineering- ICMME2015	Shri Chandrasekharendra Saraswathi Viswa Mahavidyala (SCSVMV University), Kanchipuram	25 th March 2015	Published in IEEE Xplore Digital Library
4	Enhancing the Properties of Used Mineral Oil by the Regeneration Process	IEEE International Conference on Advances in Electrical, Electronics, Information, Communication, and Bioinformatics	Prathyusha Engineering College, Chennai	27 th and 28 th Feb 2016	Published in the IEEE Xplore Digital Library conference preceding the ICAEEICB 2017 978-1-5090-5434-3
5	Analysis of significant parameters of miscellaneous insulating fluids with antioxidants	Two Days International Conference on Contemporary Topics in Electrical and Electrical Engineering ICCTEEE'18	Karpagam College of Engineering	27 th and 28 th Feb 2017	Published in the IEEE Explore Digital Library conference proceedings of ICCTEEE 2018

6	Comparison of critical parameters of reclaimed transformer oil & vegetable oil using antioxidants	3 rd International Conference on Emerging Trends in Computing, Communication and Automation Technology	Sri Vidya College of Engineering & Technology, Virudhunagar.	9 th March 2018	Published in the IEEE Explore Digital Library conference proceedings of ISBN:978-81-931500-1-6
7	Improving The Performance of Vegetable Oil with Antioxidants For Transformer Application	5 th International Conference on Latest Trends in Science, Engineering and Technology	Karpagam Institute of Technology, Coimbatore	22 nd & 23 rd March 2019	Published in the IEEE Explore Digital Library conference proceedings of ICLTSET 2019
8	Agriculture Irrigation System Using Smart Technologies	6 th International E-Conference on Latest Trends in Science, Engineering and Technology	Karpagam Institute of Technology, Coimbatore	13 th April 2020	Published in IEEE Xplore Digital Library
9	GSM-based voltage and power factor monitoring control system	ICPERES International Conference	SRM Engineering College, Chennai	22 nd April 2021	SRM Conference proceedings
10	Analysis of significant parameters of miscellaneous insulating fluids with antioxidants	1 st IEEE International Conference on Nanoelectronics, Nanophononics, Nanomaterials, Nanoscience, & Nanotechnology	Mangalam College of Engineering, Kottayam, Kerala	28 th and 29 th April 2022	Published in IEEE Xplore Digital Library ISBN:978-1-6654-3729-5
11	Enhancing the critical parameter of liquid insulation used in power transformers	2 nd IEEE International Conference on Nanoelectronics, Nanophononics, Nanomaterials, Nanoscience, & Nanotechnology	VISAT Engineering College, Kerala	28 th and 29 th April 2023	Published in IEEE Xplore Digital Library ISBN:978-1-6654-3729-5
12	Analysis of vegetable oils for power transformers	2 nd IEEE International Conference on Nanoelectronics, Nanophononics, Nanomaterials, Nanoscience, & Nanotechnology	VISAT Engineering College, Kerala	28 th and 29 th April 2023	Published in IEEE Xplore Digital Library ISBN:978-1-6654-3729-5
13	Enhancing the critical parameter of liquid insulation	Third International Conference on Intelligent	Kalasalingam Academy of Research and Education	22 nd March 2024	https://doi.org/10.1109/IN COS59338.2024.10527541

	used in power transformers	Techniques in Control, optimization and Signal Processing			
14	Transmission Line Insulator Monitoring System	INTERNATIONAL CONFERENCE Intelligent Computing Techniques in Electrical Energy System ICICTEES - 2024	Francis Xavier Engineering College, Tirunelveli	13 March 2024	Accepted for Scopus-indexed AIP conference proceedings
15	A Human-Controlling Robot Using Bluetooth Module	INTERNATIONAL CONFERENCE Intelligent Computing Techniques in Electrical Energy System ICICTEES - 2024	Francis Xavier Engineering College, Tirunelveli	13 March 2024	Accepted for Scopus-indexed AIP conference proceedings
16	Liquid Dielectric Analysis for Electrical Power Transformer Applications	INTERNATIONAL CONFERENCE Intelligent Computing Techniques in Electrical Energy System ICICTEES - 2024	Francis Xavier Engineering College, Tirunelveli	13 March 2024	Accepted for Scopus indexed AIP conference proceedings
17	Experimental Investigation of Liquid Insulation Using Molecular Sieves In Transformer OIL	5 th International Conference on Trends in Material Science and Inventive Materials - (ICTMIM 2025).	Rohini College of Engineering & Technology, Kanyakumari Tamilnadu	12 May 2025	https://doi.org/10.1109/ICTMIM65579.2025.10987911
18	Design and Analysis of Power Flow Using ETAP / PS CAD Software	16th International Conference On Recent Engineering And Technology 2025	Sri Venkateshwarra College Of Engineering, Bangalore, India In Collaboration With Samarkand State University, Uzbekistan	16 May 2025	Accepted for publication at the International Journal of Medical Toxicology and Legal Medicine
19	IoT - Enabled Spy Robot with Landmine Detection using ESP32-Cam	IEEE International Conference on AI-Driven Smart Systems and	Shinawatra University, Thailand	19 February 2026	DOI: 10.1109/ICAUC68182.2026.11441044

		Ubiquitous Computing			
20	Sustainable Energy Generation using Piezoelectric Footstep Mechanism	6 th IEEE International Conference on Image Processing and Capsule Networks	Kathmandu University, Dhulikhel, Nepal	27 January 2026	DOI: 10.1109/ICIPCN67432.2026.11438376

4.2 International Journal Publication

S. No	Title of the Paper	Name of the Journal	Vol. No & Page No.	Month & Year
1	Intravenous Glucose Bag Monitoring System	International Journal of Medical Toxicology and Legal Medicine	Vol. 28, No.2s1	2025
2	Breakdown Voltage Prediction by Utilizing the Behavior of Natural Ester for Transformer Applications	IASC-Intelligence Automation and Soft Computing	Vol.35 & No.3	2023
3	Collating the Critical Parameters of Reclaimed Transformer Oil & Vegetable Oil Using Antioxidants	International Journal on Advanced Electrical and Computer Engineering (IJAECE)	ISSN(Online): 2349-9338, ISSN(Print): 2349-932X Volume -5, Issue -1	2018
4	Enhancement of Critical Characteristics of Aged Transformer Oil Using Regenerative Additives	Australian Journal of Electrical & Electronics Engineering	Vol. 11, No. 1, pp. 77-86.	2014
5	Enhancing the Critical Characteristics of Natural Esters with Antioxidants for Power Transformer Applications	IEEE Transactions on Dielectrics and Electrical Insulation	Vol. 20 & No. 3	2013

4.3 Journal Reviewer:

- ✓ International Journal of Electrical Power and Energy Systems - Elsevier
- ✓ International Journal of Computers materials & continua, Tech Science Press
- ✓ International Journal of Circuit Theory and Applications, ohn Wiley & Sons Ltd

5. Membership in Professional bodies:

Name of Society	Grade of Membership
ISTE	Life Member

6. Additional Responsibilities held

- ✓ EEE - GATE forum in charge
- ✓ Department Alumni coordinator
- ✓ EEE - Timetable in charge
- ✓ II EEE B Section Class Tutor
- ✓ Department Civil and mechanical works - In Charge
- ✓ High Voltage Lab – Consultancy Work
- ✓ Liquid Dielectrics Lab – In charge
- ✓ Stock verification Member
- ✓ NAAC committee
- ✓ NBA committee