FACULTY PROFILE

Name: : Mr.P.SAMUEL PAKIANATHAN

Official Address with E-mail Id : Assistant Professor,

Department of EEE,

National Engineering College,

Kovilpatti

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Mobile Number : 9894231821

1. Personal Details

Age : 36

Date of Birth : 07/06/1987

Sex & Marital Status : Male / Married

:

Citizenship : Indian
Religion : Christian

Qualification

| Degree | Programme and Specialization | Class /CGPA or Percentage | Month &Year of Passing | Institute/University |
|--------|---|---|---------------------------|---|
| PhD | Electrical Engineering-(High voltage Engineering- Liquid dielectrics) | Thesis Submitted | - | 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. |

Date of joining : 07/05/2013

Present status : Assistant Professor

Industrial Experience :

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

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 | 2111/120 |



| Researcher ID | 44334 |
|---------------|--------------|
| Citations | 137 |
| H – Index | 4 |
| i-10 index | 3 |
| AICTE id | 1-2187289324 |

3. Academic Achievements

3.1 Courses taught:

| Course Title | U.G. or P.G. |
|--|--------------|
| Electromagnetic Field Computation and Modeling | 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. |

3.2 Short term Courses / Seminars / Conference/ 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, Trouble Shooting 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 Center, Dalmiapuram, Trichy |
| 7 | CSIR sponsored National Level Technical Seminar on "Design, Modeling 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 AICTE sponsored faculty development program on | 6 th - 19 th November | National Engineering College, |

| | "Recent trends and Applications of High Voltage | 2017 | Kovilpatti |
|----|--|--|--|
| | Engineering" | | |
| 21 | One week Industrial Know how Programme | 07 th to 11 th March 2018 | Associated Transformer Private Limited, Dindigual |
| 22 | Short term course (STC) entitled" Recent trends in condition monitoring of power apparatus and systems" | 19 th t0 24 th February 2018 | IIT Madras, Chennai |
| 23 | Short term training programme on "Introduction to smart materials with energy harvesting Applications" | 02 nd to 07 th September 2018 | IIT Madras, Chennai |
| 24 | One-week AICTE sponsored faulty development programme 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 |

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 | 6 th to 19th November | National Engineering College, Kovilpatti | 34 |
| | Engineering" | | 1 | |

${\bf 3.4~Online~Certification~Completed:}$

| 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 "Fundaments 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 Technologies, Kharakpur |
| 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 Materials and Devices" | APRIL 2023 (8weeks) | Indian Institute of Technology (IIT), Madras |
| 10. | MATLAB on ramp | - | Mathworks |

3.5 Projects Guided/Co-Guided:

| | | | | Guide/ |
|--------|---|-------|------|----------|
| Sl.No. | Title of the project | UG/PG | Year | Co- |
| | | | | Guide |
| 1 | Analysis of significant parameters of miscellaneous insulating fluids with antioxidants | UG | 2022 | Guide |
| 2 | Analysis Of Vegetable Oils and Their Mixtures As An Alternative For Transformer Oil | UG | 2021 | Guide |
| 3 | Smart Sensor Using Bike Helmet to Reduce Accident | UG | 2021 | Guide |
| 4 | Smart Management of streetlight for Energy Conservation | UG | 2020 | Guide |
| 5 | Improving the Performance of vegetable oil with antioxidants for transformer applications | UG | 2019 | Guide |
| 6 | Accident Prevention and Security system in vehicle | UG | 2018 | Guide |
| 7 | Analysis of critical parameters of fresh mineral oil using Antioxidants | PG | 2018 | Co-Guide |
| 8 | Automatic Star-Delta Starter | UG | 2017 | Guide |
| 9 | Enhancing the properties of used mineral oil and fresh vegetable oil | PG | 2017 | Co-Guide |

| 10 | Theft intimation of the vehicle over SMS to owner who | UG | 2016 | Guide |
|----|--|----|------|----------|
| | can stop the engine remotely | | | |
| 11 | RFID based library management system | UG | 2015 | Guide |
| 12 | Electrical conductivity and tensile strength of carbon | PG | 2015 | Co-Guide |
| | nano tubes reinforced aluminium material | | | |

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 |

3.7 Online Webinars attended:

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

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 Proceeding of ICCPCT 2013 ISSN: 978-1-4673-4920-8/13 |
| 2 | Investigation of critical parameters of mixed insulating fluids with | IEEE International Conference on Circuits, Power and Computing | Noorul Islam Centre for Higher Education, Kumaracoil | 21 st and 22 nd March 2014 | Published in IEEE Xplore Digital Library. Conference |

| | | m1. 1 · | | | Danie II C |
|---|--|--|---|---|---|
| | antioxidants | Technologies, ICCPCT-2014 | | | Proceeding 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 Chandrasekh arendra Saraswathi Viswa Mahavidyala ya (SCSVMV University), Kanchipuram | 25 th march 2015 | Published in IEEE Xplore Digital Library |
| 4 | Enhancing the Properties of Used Mineral Oil by Regeneration Process | IEEE International conference on Advances in electrical, Electronics, information, communication and bio- informatics | Prathyusha Engineering college, Chennai | 27 th and 28 th Feb 2016 | Published in IEEE Xplore Digital Library conference preceding of 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 IEEE Explore Digital Library conference proceeding 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, Virudhunaga r. | 9 th March 2018 | Published in IEEE Explore Digital Library conference proceeding 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 IEEE Explore Digital Library conference proceeding 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 | 1st 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 | 2nd IEEE International conference on Nanoelectronics, Nanophononics, Nanomaterials, Nanoscience, & Nanotechnology | VISAT Engineering college, Kerala | 28 th and 29 th April 2023 | Accepted for the IEEE publication |
| 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 | Accepted for the IEEE publication |

4.2 International Journal Publication

| S. No | Title of the Paper | Name of the Journal | Vol. No & Page No. | Month & Year |
|----------|---|---|--|-----------------|
| 1 | Breakdown Voltage Prediction by Utilizing the Behavior of Natural Ester for Transformer Applications | IASC-Intelligence Automation and Soft Computing | Vol.35 & No.3 | 2023 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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:

- $\checkmark~$ International Journal of Electrical Power and Energy Systems Elsevier
- ✓ computers materials & continua, Tech Science Press

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