# FACULTY PROFILE

| | |
|---|---|
| Name of the Staff | : **Dr. B. VIGNESHWARAN** |
| Official Address with E-mail ID | : Assistant Professor (Senior Grade) |
| | EEE Department, |
| | National Engineering College |
| | vigneshwaran@nec.edu.in |
| Mobile Number | :+91 9894414572 |

## 1.Personal Details

| | |
|---|---|
| Age | :34 |
| Date of Birth | : 06/10/1989 |
| Sex & Marital Status | :Male / Married |
| Citizenship | : Indian |

### 1.1. Qualification

| Degree | Specialization | Class /CGPA | Month &Year of Passing | Institute/University |
|---|---|---|---|---|
| Ph.D | High Voltage Engineering | December 2019 | | Anna University, Chennai |
| M.E | High Voltage Engineering | I Class with Distinction/ 9.1 | July 2013 | National Engineering College, Kovilpatti. |
| B.E | Electrical and Electronics Engineering | I Class/82 | April 2011 | P.S.R Engineering College, Sivakasi. |

### 1.2. Professional Experience:

| Designation | Institution/Organization | Period | Nature of Duties |
|---|---|---|---|
| Assistant Professor (Senior Grade) | National Engineering College | 15.07.2019 to Present | Teaching and Research |
| Assistant Professor | National Engineering College | 13.05.2013 to 14.07.2019 | Teaching and Research |

## 2. Academic Achievements

### 2.1Short term Courses / Seminars / Conference/ WorkshopsAttended:

| S.No | Title | Period | Venue |
|---|---|---|---|
| 1. | FDP on Python for Data Science | Jul – Aug 2022 | NPTEL Course, IIT Madras |

| | | | |
|---|---|---|---|
| 2. | ATAL FDP on Artificial Intelligence: Applications of AI in Research and Development | 05.07.2021 to 09.07.2021 | Council of Scientific and Industrial Research (CSIR), Bhopal-462026 |
| 3. | ATAL FDP on Artificial Intelligence | 09.11.2020 to 13.11.2020 | National Institute of Technology, Calicut |
| 4. | AICTE – Margdarshan Scheme sponsored one week faculty development programme on Perspectives and Challenges in Outcome | 13.07.2020 to 17.07.2020 | National Institute of Technology, Trichy |
| 5. | AICTE – Margdarshan Scheme sponsored one week faculty development programme on Empowering Teachers in 21st Century | 27th April to 03rd May 2019 | National Institute of Technology, Trichy |
| 6. | TEQIP – III sponsored one-week faculty development programme on Free/open source software for AI and Machine | 01st – 06th October 2018 | Thiagarajar College of Engineering, Madurai |
| 7. | AICTE sponsored short term course on Recent trends in condition monitoring of power apparatus and systems | 19th – 24th February 2018 | Indian Institute of Technology, Madras |
| 8. | Two Weeks AICTE sponsored faculty development programme on "Recent trends and Applications of High Voltage Engineering" | 6th - 19th November 2017 | National Engineering College, Kovilpatti |
| 9. | Training on protection relay – P14D | 24th and 25th October 2017 | National Engineering College, Kovilpatti |
| 10. | Three days Quality improvement Programme on "Instructional design and delivery systems" conducted by NITTTR, | 22nd - 27th May 2017 | National Engineering College, Kovilpatti |
| 11. | Three days Quality improvement Programme on "Technology Enabled Teaching Learning Process" conducted by | 27th – 29th May 2017 | National Engineering College, Kovilpatti |
| 12. | Five days QIP-AICTE sponsored short term course on "Recent Advances in UHV transmission and distribution" | 19th – 23rd December 2016 | Indian Institute of Science (IISc), Bangalore |
| 13. | Two Days National Workshop on "Image Processing using MATLAB" | 16th and 17th September 2016 | KPR Institute of Engineering and Technology, Coimbatore |
| 14. | Anna University sponsored 7 Days FDTP Programme on "Applied Soft Computing Techniques" | 7 Days 09th – 15th June 2016 | MIT, Anna University, Chennai |
| 15. | Workshop on "Hands on training on MATLAB toolboxes" – HTMT'16 | 2 days 03. 03. 2016 & 04. 03. 2016 | National Engineering College, Kovilpatti |
| 16. | IEEE CIS Sponsored Three days workshop on "Implementation of Soft Computing Techniques" ISCT'15 | 3 Days 5th to 8th August 2015 | National Engineering College, Kovilpatti |
| 17. | Two Weeks ISTE STTP Conducted by IIT Bombay "Pedagogy for Effective use of ICT in Engineering Education" | 5th – 7th & 19th – 21st Jan 2015 | Anna University of Technology, Tirunelveli |

| 18. | DST sponsored "Empowering Indian Engineering Education for Global Expectations" | 2 Days 7th& 8th November | National Engineering College, Kovilpatti |
|---|---|---|---|
| 19. | Anna University sponsored 7 Days FDP Programme on " Electromagnetic Theory" | 7 Days 12th – 19th June 2014 | Kamaraj College of Engineering and Technology, Virudhunagar |
| 20. | AICTE sponsored on day CD-Cell workshop on "Research Themes on High Voltage Technology" | 1 Day 8th February 2014 | Indian Institute of Technology, Madras |
| 21. | CSIR Sponsored One day National level Technical Seminar on "Recent Advancements in the field of High Voltage Testing Techniques" | 1 Day 27th December 2013 | National Engineering College, Kovilpatti |
| 22. | Three day workshop on "Implementation of Soft Computing Techniques Using MATLAB 2013" | 3 Days 23rd to 25th October 2013 | National Engineering College, Kovilpatti |
| 23. | One day workshop on "High Voltage Insulation Testing, Measurement and Simulation Techniques" | 1 Day 28th September 2013 | SASTRA University, Thanjavur. |
| 24. | Three days workshop named " Nuances of Support Vector Machine" | 3 Days 5th to 7th October 2012 | National Institute of Technology, Trichy |
| 25. | National Level Seminar titled " Speech and Audio Signal Processing" | 2 Days 14th and 15th September | MepcoSchlenk Engineering College, Sivakasi |
| 26. | 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 29th August 2012 | National Engineering College, Kovilpatti. |
| 27. | Two Days National Level Technical Seminar on "Application of Artificial Intelligence Techniques in Renewable Energy Systems" | 2 Days 20th and 21st January 2012 | National Engineering College, Kovilpatti. |
| 28. | Two Days National Level Technical Seminar on "Design, Modeling and Control of Electrical Machines using Artificial | 2 Days 28th and 29th October 2011 | National Engineering College, Kovilpatti. |

## 2.2 Expert Lecture Delivered:

| S.No | Title | Date | Venue | Participants |
|---|---|---|---|---|
| 1. | Startup Ideas for Green Energy Technology | 31thMarch 2022 | Karpagam Institute of Technology, Coimbatore | 80 |
| 2 | Innovative Research in Condition Monitoring of High Voltage Insulator using Deep Learning Algorithm | 11th March 2021 | Karpagam Institute of Technology, Coimbatore | 30 |
| 3 | Recognition of High Voltage defective | 06th February | Dept of EEE, National Engg. College, Kovilpatti | 60 |

| | Insulator using Deep Learning Algorithm | 2021 | | |
|---|---|---|---|---|
| 4 | Flashover characteristics on High Voltage Insulator | 20th February 2019 | Dept of EEE, National Engg. College, Kovilpatti | 30 |
| 5 | Characterization of Solid Insulation, Simulation Tools for Field Computation and Partial discharge characterization and recognition | 6th – 19th November 2017 | Dept of EEE, National Engg. College, Kovilpatti. | 35 |
| 6. | Introduction to COMSOL | 1st September 2015 | Dept of EEE & Mechatronics, Kamaraj College of Engineering and Technology, Virudhunagar. | 30 |
| 7 | Introduction to High Voltage Laboratory | 8th December 2014 | Dept of EEE, National Engg. College, Kovilpatti. | 19 |
| 8 | Electric field computation using ANSYS | 11th December 2014 | Dept of EEE, National Engg. College, Kovilpatti. | 19 |
| 9 | Breakdown in Solid and Composite Dielectrics | 12th December 2014 | Dept of EEE, National Engg. College, Kovilpatti. | 19 |
| 10 | Electric field computation using COMSOL | 14th December 2014 | Dept of EEE, National Engg. College, Kovilpatti. | 19 |

### 2.3 Industrial Training Attended:

| S. No | Training Details | Period | Company Details |
|---|---|---|---|
| 1. | Faculty Internship Training on Partial Discharge characteristics | 24th February – 01st March 2022 | Mohan Power Infrastructure Private Limited, Tirunelveli |
| 2. | Faculty Internship Training on condition Monitoring of Insulator | 01st – 05th March 2021 | TANGEDCO/M.E.D.C, Kallikudi, Madurai Division |
| 3. | Faculty Internship Training on Transformer Manufacturing and Testing | 19th – 23rd November 2018 | Shree AbiramiEnggineering works, Chennai |
| 4. | Faculty Internship Training on High Voltage Testing Techniques | 05th – 09th June 2017 | Global Power Research Institute, NABL Certified Lab, Cuddalore |

### 2.4 Online Certification Completed:

| S. No | Certification | Period | Organizers | Remarks |
|---|---|---|---|---|
| 1. | NPTEL Online Certification on " Python for Data Science" | July – August 2022 (4 Weeks) | Indian Institute of Technology (IIT), Madras | Elite |

| 2. | Data Processing and Feature Engineering with MATLAB | June 2022 | Coursera | |
|---|---|---|---|---|
| 3. | Exploratory Data Analysis with MATLAB | July 2021 | Coursera | |
| 4. | Neural Network and Deep Learning | Feb 2021 | Coursera | |
| 5. | MATLAB Online Certification on "MATLAB Programming Techniques" | June 2020 | Mathworks Training Services | |
| 6. | MATLAB Online Certification on "Machine Learning with MATLAB" | Apr 2020 | Mathworks Training Services | |
| 7. | Coursera Online Certification on "Electric Power Systems" | Mar 2020 | The State University of Newyork | |
| 8. | Coursera Online Certification on "Python Data Structures" | Dec 2019 | University of Michigan | |
| 9. | MATLAB Online Certification on "Deep Learning with MATLAB" | Oct 2019 | Mathworks Training Services | |
| 10. | Coursera Online Certification on "Programming for Everybody (Getting Started with Python)" | Oct 2019 | University of Michigan | |
| 11. | MATLAB Online Certification on "Deep Learning Onramp" | Sep 2019 | Mathworks Training Services | |
| 12. | NPTEL Online Certification on "Recent Advances in Transmission Insulators" | August – September 2018 (4 Weeks) | Indian Institute of Science (IISC), Bangalore | Elite |
| 13. | NPTEL Online Certification on "Advances in UHV Transmission and Distribution" | July-September 2018 (8 weeks) | Indian Institute of Science (IISC), Bangalore | Elite |
| 14. | NPTEL Online Certification on "Introduction to Research" | January-February 2016 (10 Hours) | Indian Institute of Technology (IIT), Madras | Elite |

### 2.5. Event Organized:

| S. No | Title of the Webinar/ Event | Date | Participants |
|---|---|---|---|
| 1 | Application of Artificial Intelligence Techniques in High Voltage Engineering | 5.02.2021 and 6.02.2021 | 60 |
| 2 | Condition Monitoring and Diagnosis Techniques for High Voltage Power Apparatus using Soft Computing Approaches | 11.03.2022 and 13.03.2022 | 60 |

# 3. Research Achievements

## 3.1 International Journal Publication – SCI (With Impact Factor)

| S.No. | Title of the Paper | Name of the Journal | Vol. No & Page No. | Year |
|---|---|---|---|---|
| 1. | Development of Sustainable poly benzoxazine based organic-inorganic hybrid composites for high voltage insulator applications | Journal of Material Science: Materials in Electronics **IF = 2.779** | Accepted for Publication | 2023 |
| 2. | Deep Learning Based Monitoring of High Voltage Transformer Using Partial Discharge Patterns | Intelligent Automation & Soft Computing **IF = 2.334** | Vol. 34, Issue 3 | 2022 |
| 3. | Statistical Reliability Analysis on Flashover Characteristics of Ceramic Disc Insulator and Polymeric Insulators | Arabian Journal for Science and Engineering **IF = 1.647** | Vol. 47, pp14627–14639 | 2022 |
| 4. | Enhanced Particle Swarm Optimization based Convolution Neural Network hyperparameters tuning for Transformer failure diagnosis under Complex Data Sources | Electrical Engineering – Springer **IF = 1.836** | Vol. 104, pp2621–2636 | 2022 |
| 5. | Recognition of Shed damage on 11kV Polymer Insulator using Bayesian Optimized Convolution Neural Network | Soft Computing – Springer **IF = 3.643** | Vol. 26, pp6857–6869 | 2022 |
| 6. | Recognition of pollution layer location in 11 kV polymer insulators used in smart power grid using dual-input VGG Convolutional Neural Network | Energy Reports – Elsevier **IF = 3.595** | Vol. 7 pp. 7878–7889 | 2021 |
| 7. | Partial discharge pattern analysis using multi class support vector machine to estimate cavity size and position in solid insulation | Soft Computing – Springer **IF = 2.784** | Vol. 24 pp. 10645–10656 | 2020 |
| 8. | Recognition of multiple partial discharge patterns by multi-class support vector machine using fractal image processing technique | IET Science, Measurement & Technology **I.F = 1.336** | Vol. 12, Issue 8, November 2018, pp. 1031 – 1038 | 2018 |
| 9. | Genetic Algorithm Based Automated Threshold Estimation in Translation Invariant Wavelet Transform for De-noising PD Signal | International Journal for Computation and Mathematics in Electrical and Electronic Engineering **I.F = 0.440** | Vol.34, No.4.: pp. 1252 - 1269 | 2015 |

| 10. | Analysis of Stress Control on 33kV Non-Ceramic Insulators using FEM | Taylor & Francis Electric Power System & Components **I.F = 0.690** | Vol.43, No.5. : pp. 566-577 | 2015 |
|---|---|---|---|---|
| 11. | Support Vector Machine Based Denoising Technique for Removal of White Noise in Partial Discharge Signal | Taylor & Francis Electric Power System & Components **I.F = 0.690** | Vol.42, No.14. : pp. 1611-1622 | 2014 |
| 12. | Non Linear Support Vector Machine Based Partial Discharge Patterns Recognition Using Fractal Features | Journal of Intelligent and Fuzzy System **I.F = 0.939** | Vol.27, No.5.: pp. 2649-2664 | 2014 |
| 13. | Partial Discharge Signal Denoising using Adaptive Translation Invariant Wavelet Transform – Online Measurement | Journal of Electrical Engineering and Technology (JEET) **I.F = 0.725** | Vol.9, No.2: pp. 695-706 | 2014 |

**3.2 International Journal Publication – (Without Impact Factor)**

| S.No | Title of the Paper | Name of the Journal | Vol. No & Page No. | Year |
|---|---|---|---|---|
| 1. | Pollution Severity Diagnose on Solid Insulators using the Partial Discharge and Flashover Characteristics | International Journal of Innovative Technology and Exploring Engineering | Volume-9 Issue-4, | February 2020 |
| 2. | Development of Partial Discharge Signal in Ester Oil Impregnated Paper | International Journal of Innovative Technology and Exploring Engineering | Volume-9 Issue-4, | February 2020 |
| 3. | Measurement and Denoising of Partial Discharge Signal in High Voltage Cables using Wavelet Transform | International Journal of Engineering and Advanced Technology (IJEAT) | Volume-9 Issue-2, | December, 2019 |
| 4. | Influence of Electric field distribution on 33KV Non-ceramic Insulator with different shed configurations using 3D finite element Method | International Journal of Recent Technology and Engineering | Volume-8 Issue 4 | November 2019 |
| 5. | Analysis of Partial Discharge Characteristics on Aged Mineral Oils | International Journal of Applied Engineering Research | Vol.10, No.20.: pp. 18260 - 18264 | 2015 |
| 6. | Extraction of Wave Parameters for Classification of Partial Discharge Signal Using Pearson Cross Correlation Method | Australian Journal of Electrical & Electronics Engineering (AJEEE) | Vol. 11, No. 1: pp. 105-118 | 2014 |

## 3.3 International Conference Publication

| S.No | Title of the Paper | Name of the Conference | Organizer | Month & Year | Publication |
|------|--------------------|------------------------|-----------|--------------|-------------|
| 1. | Computation of Electric Field distribution on 110 kV Polymer Insulator for Different Corona Ring Positions | International Conference on Artificial Intelligence and Smart Systems (ICAIS 2023) | JCT College of Engineering and Technology, Coimbatore | 02 - 04, Feb 2023 | Published in IEEE Xplore Digital Library. |
| 2. | Transformer fault diagnosis based on the rule-based Duval method using Semi-Supervised Learning Approaches | International Conference on Computer Communication and Informatics (ICCCI 2023) | Sri Shakthi Institute of Engineering and Technology, Coimbatore | 25-27, January 2023 | Accepted for Publication |
| 3. | Optimized Parameter selection of Induction Motor using Finite Element Method | International Conference on Computer Communication and Informatics (ICCCI 2023) | Sri Shakthi Institute of Engineering and Technology, Coimbatore | 25-27, January 2023 | Accepted for Publication |
| 4. | Recognition of Partial Discharge Signatures using Convolution Neural Network | International Conference on Circuits, Communication, Control, and Computing (IC4 2022) | Ramaiah Institute of Technology, Bengaluru | 21 - 23 Dec 2022 | Published in IEEE Xplore Digital Library. |
| 5. | Fuzzy Logic-Based Fault Recognition in HV Transformer | International Conference on Circuits, Communication, Control, and Computing (IC4 2022) | Ramaiah Institute of Technology, Bengaluru | 21 - 23 Dec 2022 | Published in IEEE Xplore Digital Library. |
| 6. | Fuzzy Based Pollution Severity Prediction In Polymer Insulator Using Harmonic Analyzer | International Conference on Automation, Computing and Renewable Systems (ICACRS 2022) | Mount Zion College of Engineering and Technology, Pudukottai | 13 - 15, Dec 2022 | Published in IEEE Xplore Digital Library. |
| 7. | Fuzzy Logic-Based Efficient Blending of Mineral and Vegetable Oil as Alternate Liquid Insulation | International Conference on Electronics, Communication, and Aerospace Technology (ICECA 2022) | RVS Technical Campus, Coimbatore | 01 – 03 Dec 2022 | Published in IEEE Xplore Digital Library. |
| 8. | Recognition of Power Transformer Defect | International Conference on Electronics, | RVS Technical Campus, Coimbatore | 01 – 03 Dec 2022 | Published in IEEE Xplore Digital |

| | | | | | |
|---|---|---|---|---|---|
| | Identification Based on Dissolved Gas Analysis using Support-Vector Machine | Communication, and Aerospace Technology (ICECA 2022) | | | | Library. |
| 9. | Deep learning-based condition monitoring of insulators in overhead power distribution lines using Enhanced Cat Swarm Optimization | International Conference on Artificial Intelligence: Advances and Applications (ICAIAA 2022) | Poornima College of Engineering, Jaipur | 23 & 24 April 2022 | https://link.springer.com/book/9789811970405 |
| 10. | Recognition of Electrocardiogram Signal using Multi-class Kernel Support Vector Machine | International Conference on Artificial Intelligence and Smart Systems (ICAIS 2022) | JCT College of Engineering and Technology, Coimbatore | 23-25, February 2022 | Published in IEEE Xplore |
| 11. | Transformer oil quality assessment using Machine learning techniques | International Conference on Computer Communication and Informatics (ICCCI 2022) | Sri Shakthi Institute of Engineering and Technology, Coimbatore | 25-27, January 2022 | Published in IEEE Xplore |
| 12. | Investigation and Performance of Pollution Layer Location on 11kV Polymer Insulator | International Conference on Computer Communication and Informatics (ICCCI 2022) | Sri Shakthi Institute of Engineering and Technology, Coimbatore | 25-27, January 2022 | Published in IEEE Xplore |
| 13. | Support Vector Machine based Recognition of cavity size and location in High Voltage Cable | International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT 2022) | K. Ramakrishnan College of Engineering, Tiruchirappalli | 16-18, February 2022 | Published in IEEE Xplore |
| 14. | Recognition of Single and Multiple Partial Discharge patterns using Deep Learning Algorithm | International Conference on Artificial Intelligence and Smart Systems (ICAIS 2021) | JCT College of Engineering and Technology, Coimbatore | 25-27, March 2021 | Published in IEEE Xplore |
| 15. | Investigation of properties of short-term aged liquid dielectrics | International Conference on Smart Grids, Structure and materials (ICSGSM2021) | KoneruLakshmaiah Education Foundation | 19th& 20th April 2021 | Published in Springer Book Series |
| 16. | Dimensionality | RTU TEQIP-III | Rajasthan | February | Springer |

| | | | | | |
|---|---|---|---|---|---|
| | Reduction and Feature Extraction using Image processing techniques for classification of Single Partial Discharge Patterns | Sponsored, 3rd International Conference on Communication and Computational Technologies (ICCCT 2021), | Institute of Engineering and Technology, Jaipur | 27th& 28th 2021 | Book Series, 'Algorithms for Intelligent Systems' |
| 17. | Investigation of Pollution severity and dry and characteristics on 11KV composite Insulator | 2020 IEEE International Conference on Advances and Developments in Electrical and Electronics engineering (ICADEE 2020) | Karpagam College of Engineering, Coimbatore | December 10th& 11th 2020 | Published in IEEE Xplore |
| 18. | A Comprehensive Study and Prediction of Flashover Voltage of 11kV Bushing with Various Pollutions Using Support Vector Machine | IEEE International Conference on Innovation in Power and advanced computing technologies IPACT'19 | VIT Vellore | 22th& 23rd March 2019 | Published in IEEE Xplore Digital Library. |
| 19. | Experimental Study of Electrical Characteristics of High Voltage Bushing under Single Dry Band Conditions | IEEE International Conference on Electrical Energy systems ISEES'19 | SSN College of Engineering, Chennai | 21st and 22nd February 2019 | Published in IEEE Xplore Digital Library. |
| 20. | Prediction of flashover voltage on 11kV Composite Insulator using Kernel Support Vector Machine | International Conference on Soft Computing for Problem Solving – (Springer) | VIT Vellore | 17th – 19th December 2018 | Soft Computing for Problem Solving: SocProS 2018 |
| 21. | Investigation of Electrical characteristics of dielectric fluids using 3D finite element method | IEEE International Conference on Electrical Energy systems ISEES'18 | SSN College of Engineering, Chennai | 07th and 09th February 2018 | Published in IEEE Xplore Digital Library. |
| 22. | Electric Field Analysis of 11kV Socket End Fitting Composite Insulator | IEEE International Conference on Intelligent Systems and Control | Karpagam College of Engineering | 05th and 06th January 2016 | Published in IEEE Xplore Digital Library. |

| | | ISCO'16 | | | |
|---|---|---|---|---|---|
| 23. | Investigation on Electrical Characteristics of Dielectric Fluids under Aging Phenomena | IEEE International Conference on Communication and Signal Processing-ICCSP'15 | Adhiparasakthi Engineering College | 02nd – 04th April 2015 | Published in IEEE Xplore Digital Library. |
| 24. | Modeling and Behaviour of Partial Discharge in Nano Composite Materials | IEEE International Conference on Circuits, Power and Computing Technologies, ICCPCT-2014 | Noorul Islam Centre for Higher Education, Kumaracoil | 21st and 22nd March 2014 | Published in IEEE Xplore Digital Library. |
| 25. | Employing Mathematical Morphological filters for Partial Discharge Signal Denoising. | IEEE International Conference on Circuits, Power and Computing Technologies, ICCPCT-2014 | Noorul Islam Centre for Higher Education, Kumaracoil | 21st and 22nd March 2014 | Published in IEEE Xplore Digital Library. |
| 26. | An Improved Threshold Estimation for Partial Discharge Signal Denoising Using Wavelet Transform | IEEE International Conference on Circuits, Power and Computing Technologies, ICCPCT-2013 | Noorul Islam Centre for Higher Education, Kumaracoil | 21st and 22nd March 2013 | Published in IEEE Xplore Digital Library. |

### 3.3 National Conference Publications

| S.No | Title of the Paper | Organizer | Year |
|---|---|---|---|
| 1 | Modeling of Nano Composite polymer Dielectrics and Electrical Stress | AlagappaChettiar College of Engineering and Technology | 2014 |
| 2 | Analysis of Partial Discharge Signal using Advanced Wavelet Transform Techniques | Government College of Engineering, Tirunelveli. | 2013 |
| 3 | Enhancement the Electrical Properties of High Voltage Composite Insulators Using Grading Materials | Government College of Engineering, Tirunelveli. | 2013 |

### 4. Membership in Professional bodies :

| Name of Society | Grade of Membership |
|---|---|
| ISTE | Life Member |

## 5. Courses taught:

| Course Title | U.G. or P.G. |
|---|---|
| Circuit Theory, Electromagnetic Theory, AC Rotating Machines, Basic Electrical and Electronics Engineering, High Voltage Engineering, Bio Medical Engineering, CAD of Electrical Apparatus, Linear Integrated Circuits and its Applications and Principles of Management, DC Machines and Transformer, Insulation Technology | U.G |
| Pollution Performance of High Voltage power Apparatus, Advanced Electromagnetic Fields, High Voltage Testing Techniques, Field computation and modeling of power apparatus | P.G |

## 6. Project Grants and Funding – Received:

### 6.1. Research Projects:

✓ Sanctioned a fund of **Rs. 18, 90, 960/-** under the scheme of **Respond Basket 2022** from Indian Space Research Organization (**ISRO**), Department of Space, Government of India for the academic Year (2022 – 2023) - Ongoing.

**Title:**Denoising Algorithm for Noise reduction in MEMS Sensors
**Role**: Co-Principal Investigator
**Duration**: 2 Years

### 6.2. Student Projects:

| S.No. | Name of the Project | Student and Mentor | Project ID & Funded Year | Amount Received |
|---|---|---|---|---|
| 1 | Computer Vision based Meat quality Checker | **EEE STUDENTS** 1.RAJA SEKARAN. E 2.MOHAMED ALTHAF WAHID. T.S 3.MOHAMED MUSAB. V.M 4.SUDALAIMANI. G 5.SUNDAR RAJ. P **Mentor(s):** Dr.B.Vigneshwaran M.E., Ph.D., Asst. Prof. (SG), EEE Dept. Mr.M.Sivapalanirajan, M.E., Asst. Prof., EEE Dept. | ID: NewGen IEDC /2022-23/01/ 13.07.2022 | Rs. 2,50,000/- |
| 2 | IoT Based Chick Incubator | **EEE STUDENTS** 1. JAGADISH.L 2. JEKHAN.J.S 3. PON SARAVANA KUMAR.S 4. ARIF NAUSHATH.M **Mentor(s):** Dr.R.V.Maheswari M.E., Ph.D., Professor, EEE Dept. Dr.B.Vigneshwaran M.E., Ph.D., Asst. Prof. (SG), EEE Dept. | ID: NewGen IEDC /2021-22/01/ 06.10.2021 | Rs. 2,50,000/- |

| 3 | Electrocardiogram Based Human Authentication (ECG-HA) | **EEE STUDENTS**<br>1. GOMATHI ARASU.A<br>2. GANESHKUMAR.M<br>3. NAVEEN KUMAR.P<br>4. SELVAKUMAR.A<br>**Mentor(s):**<br>Dr.N.B.Prakash M.E., Ph.D., Asso. Prof., EEE Dept.<br>Dr.M.WilljuiceIruthayarajan M.E., Ph.D.,<br>Professor and Head, EEE Dept.<br>Dr.B.Vigneshwaran M.E., Ph.D., Asst. Prof. (SG), EEE Dept. | ID:<br>NewGen IEDC /2020-21/01/ 10.11.2020 | Rs. 2,50,000/- |

## 7. Patent Filed

| S.No. | Title of Invention | Application Number | Date of Publication |
|---|---|---|---|
| 1. | A device for Authenticating a Person | 202241010734 | 04.03.2022 |

## 8. Supervisor Status (Guiding Research Scholars)

- ✓ Received Supervisor status under Anna University, Chennai on 14.11.2022.
- ✓ Supervisor Reference Number: **4030017**
- ✓ Supervisor Department: **Electrical Engineering**

## 9. Additional Responsibilities held

- EEE Newsletter (I/C)
- EDC Cell (Co-coordinator)
- ICT/ Virtual Lab/ Online Course (In-Charge)
- IEEE Student Chapter (Dept In-charge)
- ERP (Dept In-charge)
- Class In-charge and Tutor (IV Year Students)