

**Dr. S.SATTHIYARAJ**

Teaching Fellow

Department of Electrical and Electronics Engineering

University college of Engineering Panruti,

(A Constituent College of Anna University Chennai)

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**CAREER OBJECTIVE:**

Seeking challenging job where my technical skill can contribute to the organization as well as benefits of me.

**QUALIFICATION:**

DEGREE	SPECIALIZATION	UNIVERSITY/BOARD	YEAR OF PASSING	CLASS OBTAINED
Ph.D	Electrical and Electronics Engineering	St.Peter's University, Chennai	May 2019	Commended
M.E	Power Electronics and Drives	Anna University, Chennai	June 2011	First Class
B.E	Electrical and Electronics Engineering	Anna University, Chennai	April 2006	First Class
Diploma	Electrical and Electronics Engineering	DOFE, Chennai	April 2003	First Class with Honours
SSLC	Language, Mathematics and Science	Department of School Education, Chennai	March 2000	First Class

**ADDITIONAL QUALIFICATION:**

- **PGDEAS** – Post graduate Diploma in **Educational Administration and Supervision** at **Annamalai University**, Chidambaram.

**Ph.D Thesis :** Power Quality Improvement using Power System Compensators on Distribution Network.

**M.E Thesis :** Fuzzy Controlled New Reference Current Generation for Shunt active filter under Distorted Voltage Conditions.

### **TEACHING EXPERIENCE:**

NAME OF THE INSTITUTION	EXPERIENCE	DESIGNATION
<b>University College of Engineering Panruti.</b> (A Constituent College of <b>Anna University</b> )	Aug 2013- Till date ( 7.9 Years)	Teaching Fellow
<b>Dr.Paul's Engineering College</b> , Pulichapallam, Vanur.	1 Year	Assistant Professor
<b>E.S.College of Engineering and Technology</b> , Villupuram	4 Years	Lecturer
<b>Chennai Orbit</b> , Hyderabad.	1 Year 9 Months	Design Engineer

### **HONOURS and AWARDS:**

- **Best Researcher Award** from **Indian Academicians and Researcher Association** on 21<sup>st</sup> April, 2019.
- **Best Paper Award** in the 2<sup>nd</sup> National Conference on Innovative & Emerging Trends in Engineering and Technology Organized by Panimalar Institute of Technology held on 14<sup>th</sup> May 2015.
- **Best Paper Award** for the paper entitled “Zero current zero voltage switching dual transformer based full bridge converter for medium voltage DC grids” at **International conference on Green Technologies for power generation, communication and health care ISBN. No- 978-93-5254-979-5** on 6<sup>th</sup> June, 2020, conducted by St.Peter’s Institute of Higher Education And Research, Avadi, Chennai.

### **INTERNATIONAL JOURNAL PUBLICATIONS:**

- **S.Satthiyaraj** and Dr.S.Sankar “Simulation of Unified Power Quality Conditioner for Mitigation of Voltage Sag and Swell”, **IJAER- International Journal of Applied Engineering Research**, ISSN: 0973-4562, Vol. 9, No. 22, 2014.

- **S.Satthiyaraj** and Dr.S.Sankar “Fuzzy Controller based Multi-level UPQC using Dq0 transformation to improve power quality in Distribution Systems”, **ARPN Journal of Engineering and Applied Sciences**, ISSN: 1819-6608, Vol. 10, No. 17 September 2015.
- **S.Satthiyaraj** and Dr.S.Sankar “Comparative Analysis of Power Quality Improvement using STATCOM and SSSC in Distribution systems” **International Journal of Control Theory and Applications**, ISSN: 2277-9655 Vol. 9, No. 6, May 2016.
- **S.Satthiyaraj**, Dr.S.Sankar and Anandhi “A Modified Unified Power Quality Conditioner for Power Quality Improvement in Distribution System” **International Journal for Research & Development in Technology**, ISSN: 2349-3585 Vol. 6, No. 1, August 2016.
- **S.Satthiyaraj**, K.K.Saravanan and Dr. N. Stalin “Analysis of Fault-Current Limiting Scheme for the Micro grid”, **International Journal of Applied Engineering Research**, ISSN 0973-4562, Vol.10, No.72, 2015.
- **S.Satthiyaraj** and Anandhi “Fuzzy Logic based Speed Control of Induction Motor using Pulse Width Modulation Technique”, **International Journal of Modern Trends in Engineering and Science**, ISSN :2348-3121, Vol. 3, No. 10, 2016
- **S.Satthiyaraj** and Anandhi “Embedded Visual Cryptography Schemes for Secret Images”, **International Journal of Computer Science & Network Security** ISSN: 1738 -7906, Vol. 12 No. 12, December 2012.
- **S.Satthiyaraj**, Anandhi and Dr. G.Gunasekaran “Visual Cryptography Using Lempel-Ziv- Welch Algorithm”, **International Journal of Engineering and Advanced Technology** ISSN No: 2249 -8958, Vol. 2, No.3, February 2013.
- Anandhi, Dr. M.S.Josephine, Dr. V.Jeyabalraja and **S.Satthiyaraj** “Iris Recognition Using Canny Algorithm for Human Recognition System” **EJSR – European Journal of Scientific Research** ISSN: 1450-216X/1450-202X. Impact factor: 0.736.

- Anandhi, Dr. M.S.Josephine, Dr.V.Jeyabalaraja and **S.Satthiyaraj** “Iris Segmentation and Detection System for Human Recognition using Canny Detection Algorithm”, **International Journal of Advances Research**, ISSN: 2320-5407, Vol. 4, No. 7, July 2015.
- Anandhi, Dr. M.S.Josephine, Dr.V.Jeyabalaraja and **S.Satthiyaraj** “Comparison of Canny and Sobel Edge in Detection Techniques”, **International Journal of Engineering Sciences & Research Technology**, ISSN: 2277-9655, Vol. 4, No. 7, July 2015.
- **S.Satthiyaraj** and Dr.S.Sankar “Enhancement of Power Quality using Unified Power Quality Conditioner with Kalman filter”, **International Journal of Advanced in Management, Technology and Engineering Sciences**, ISSN: 2249-7455.Vol. 7, No. 9, 2017.
- **S.Satthiyaraj** and Anandhi, “Fault Current Control and Voltage Stability Improvement Using Dynamic Voltage Restorer”, **Dr.R.K.Shanmugam International Journal of Science & Humanities**, ISSN: 9810-7291, Vol. 1, No.2, Impact Factor: 4.3478, March 2017.
- **S.Satthiyaraj, G.Vignesh and Vennila** “Digital Simulation of Unified Power Quality Conditioner with Kalman filter for mitigation of power quality disturbances” **Dr. R.K.Shanmugam International Journal of Science & Humanities**, ISSN: 9810-7291, Vol. 1, No.2, Impact Factor: 4.3478, March 2017.

#### **INTERNATIONAL CONFERENCES:**

- **S.Satthiyaraj** and Anandhi “Simulation of Unified Power Quality Conditioner For Power Quality Improvement in Distribution System using MATLAB” at **ICAME International Conference on Advances in Mechanical Engineering** at **UCEV** University College of Engineering - Villupuram on 15<sup>th</sup> October-2015.
- **S.Satthiyaraj** , Anandhi and Jishnu Jayaprakash, “Reduction Of Harmonics in Shunt Active Filter Under Distorted Voltage Conditions ” at **IEEE - International Conference on Research and Development Prospects in Engineering and Technology**

**(IEEE-ICRDPET-2013)** at E.G.S. Pillay Engineering College , Nagapattinam, India on 29<sup>th</sup> and 30<sup>th</sup> March 2013.

- Jishnu Jayaprakash, **S.Satthiyaraj** “Implementation of Series Resonant Inverter fed Induction Heater using Pulse Density Modulation” **Proceedings of International Conferences Emerging trends in Electrical Engineering (ETIEE’13)** at Department of EEE, Maria college of Engineering and Technology, Athoor on 21<sup>st</sup> and 22<sup>nd</sup> March 2013.
- **S.Satthiyaraj**, Anandhi “Comparison of Various Edge Detection Techniques”. **Proceedings of International Conference on Innovative Technologies of Computing Sciences** at Vel’s University, Chennai, Presented On 17<sup>th</sup> April 2015.
- **S.Satthiyaraj**, Dr.S.Sankar “Comparative Analysis of Power Quality Improvement Using STATCOM and SSSC in Distribution System”. **Proceedings of International Conference on Green Technologies for Power Generation, Communication& Instrumentation ICGPC 2016** at St.Peter’s University , Chennai Presented on 23<sup>rd</sup> and 24<sup>th</sup> March 2016.
- **S.Satthiyaraj**, “Comparison of Various Edge Detection Techniques”. **Proceedings of International Conference on Science, Engineering and Technology (SET) organized by School of Electrical Engineering** VIT University, Vellore, on 7<sup>th</sup> & 8<sup>th</sup> May 2015.
- Dr.P.Sathish Babu, **Dr.S.Satthiyaraj** “SOFC Supported Intelligent controlled DVR for mitigating power quality problems” **Proceedings of International Conferences on Computing Information Electronics and Electrical Engineering (ICCIEEE-2020)** at, Idhaya college of Engineering for Women, Chinnaselam on 21<sup>st</sup> February 2020.
- **Participated in an International Conference on Ethical Issues in Academic Research** at Syed Husainuddin Hall, Jamal Mohamed College, Trichirapalli, Tamilnadu on 21<sup>st</sup> April, 2019.

## NATIONAL CONFERENCES:

- **S.Satthiyaraj** and Jeraldine Viji “Fuzzy Controller based new reference current generation for shunt active filter under distorted voltage conditions” at **TECHON’10 Signal Processing & Wireless ADHOC Networks**, at IFET College of Engineering., Villupuram, Tamilnadu, India, 24<sup>th</sup> December, 2010.
- **S.Satthiyaraj** and L.U.Sudha “ A New reference current generation for shunt active filter under distorted voltage conditions using Intelligent control technique at **Optimization Techniques in Engineering Science and Technologies (OPTEST 2012)** at Bannari Amman Institute of Technology Sathyamangalam, 20<sup>th</sup> & 21<sup>th</sup> April , 2012.
- **S.Satthiyaraj** , P.S.SenthilKumar and J.Vijayalakshmi “A Three-Phase Reduced Switch High Power Factor Buck-Type Converter” at **NCESEE 2013 National Conference Emerging Scenario in Electrical & Electronics Engineering** at Mailam Engineering College – Mailam, Tamilnadu, India on March 23<sup>rd</sup> 2013.
- **S.Satthiyaraj**, V.Anandakumar & V.Vinothini “An Advanced Cascaded Multilevel Inverter with Renewable Energy System Employing Incremental Conductance By Using MPPT Algorithm” at **NCESEE 2013 National Conference Emerging Scenario in Electrical & Electronics Engineering** at Mailam Engineering College – Mailam, Tamilnadu, India on March 23<sup>rd</sup> 2013.
- **S.Satthiyaraj** and Dr.S.Sankar “Design and Simulation of Unified Power flow controller for power quality improvement”. Presented a paper in **National Conference (DIET 14)** at Department of Electrical & Electronics Engineering, University College of Engineering Panruti. (A Constituent College of Anna University Chennai).
- **S.Satthiyaraj** and Anandhi “PWM Based Speed Control of Induction Motor Using Fuzzy Logic” in **Second National Conference on Electrical Power and Energy Systems (EPES’2015)** at Kongunadu College of Engineering and Technology, Trichy , India on 25<sup>th</sup> March 2015.
- **S.Satthiyaraj** and Anandhi, “Design and Simulation of UPQC for Power Quality Improvement” in **National Conference on Xtreme Engineering and Technological Advancements (XETA- 2K15)** at Jayam College of Engineering and Technology,

Dharmapuri, Tamilnadu, India on 30<sup>th</sup> & 31<sup>st</sup> March 2015.

#### **FDP, SEMINARS, WORKSHOPS & SYMPOSIUM ATTENDED:**

- Participated in **International Conference** on Computing, Communication and Drastic Innovations in Energy Thrive (IC3DIET-18) held on 28<sup>th</sup> February & 1<sup>st</sup> March, 2018, at University College of Engineering Panruti. (A constituent college of Anna University, Chennai).
- Participated in Two days **Workshop** on “ **MATLAB Programming & Simulink to Power Engineering Applications**” organized by Department of Electrical and Electronics Engineering of Adhiparasakthi Engineering College, Melmaruvathur from 29<sup>th</sup> to 30<sup>th</sup> November 2012.
- Participated in one day **Workshop** on “**Nuclear Energy**” organized by Sri Aravindar Engineering College, Sedarapet in collaboration with Bharatiya Nabhiya Vidyut Nigam Limited (BHAVINI), Department of Atomic Energy, Kalpakkam on 28<sup>th</sup> July 2012.
- Participated in one day **Workshop** on “**Soft Computing Techniques & E- Journal Preparatory Process**” organized by Department of Electrical and Electronics Engineering of Dr.Pauls Engineering College, Villupuram on 17<sup>th</sup> October 2012.
- Participated in **Faculty Development Training Programme** on CIRCUIT THEORY at University College of Engineering Panruti, sponsored by Centre for Faculty Development, Anna University from 9<sup>th</sup> to 15<sup>th</sup> December 2015.
- Participated in one day **Faculty Development Programme** on **HAM RADIO** conducted by Department of Electronics and Communication Engineering of Dr.Pauls Engineering College, Villupuram in Association with IEEE on 4<sup>th</sup> August, 2012.
- Participated in one day **Faculty Development Programme** on 9<sup>th</sup> February 2013 by Dr.Jayaprakash Narayanan, Director (Retd) at Dr.Pauls Engineering College, Villupuram.
- Participated in two days program on **VISION ROBOTIC'12** held on 15<sup>th</sup> of October 2012 at Dr. Paul's Engineering College, Villupuram Sponsored by Blue Eminence in Association with **IIT Guwahati**.

- Participated in three days training program on **RIPE FACULTY DEVELOPMENT MODULE (RFDM)** conducted by RIPE Academy, Organized by Manakula Vinayagar Institute of Technology, Puducherry from 10<sup>th</sup> to 12<sup>th</sup> June 2013.
- Participated in TEQIP II Sponsored Two days **National Seminar** on POWER ELECTRONICS FOR RENEWABLE ENERGY SYSTEMS (PERES-2016 ) Organized by Department of Electrical and Electronics Engineering, Anna University-BIT Campus Tiruchirapalli from 18<sup>th</sup> to 19<sup>th</sup> August 2016.
- Participated in one day **International Seminar** RKS Techno Fest-2017 on 11<sup>th</sup> March, 2017, and presented a paper titled “Fault Current control and Voltage Stability” at Dr.R.K.Shanmugam College of arts and science, Indili, Kallakurichi.
- Participated in one day **National Seminar** on RENEWABLE ENERGY- ENERGY OF THE FUTURE 2005 by Ministry of Non- Conventional Energy Sources & Tamilnadu Energy Development Agency at Mailam Engineering College, Mailam on 20<sup>th</sup> August 2005.
- Participated in two days **National Seminar** on RECENT TRENDS IN HYBRID POWER GENERATION sponsored by Council of Scientific and Industrial Research (CSIR) and organized by Department of Electrical and Electronics Engineering, Manakula Vinayagar Institute of Technology, Puducherry from 30<sup>th</sup> June 2017 to 1<sup>st</sup> July 2017.
- Participated in one day **National Technical Seminar** on INTELLIGENT SYSTEM APPLICATIONS TO POWER ENGINEERING organized by Department of Electrical and Electronics Engineering Student’s Association (SCOPE- ELECTROVAGANZA 2K14) at University College of Engineering Panruti. (A constituent college of Anna University, Chennai) on 18<sup>th</sup> September 2014.
- Participated in one day workshop on “**Neural Networks & its Applications Using MATLAB**” – WONMAT ’13 on 9<sup>th</sup> October 2013 at University College of Engineering Panruti. (A constituent college of Anna University, Chennai) .
- Participated in four days National workshop on “**Quantitative Techniques in Financial Research**” held on 3<sup>rd</sup> to 6<sup>th</sup> April 2019 at Pondicherry University Sponsored by (**DST-FIST & UGC-SAP-DRS-I**).

- Attended one week National workshop on “**Computational Intelligent Techniques for Engineering Applications (CITEA)**” held on 5<sup>th</sup> to 11<sup>th</sup> December 2012 at University College of Engineering Panruti. (A constituent college of Anna University, Chennai).

#### **PATENT:**

- Applied and Filed an **Intellectual Property India Patent** on **Transformer Type Reactor** on 09.05.2019.

#### **ROLES AND RESPONSIBILITIES:**

- Served as External & Internal Examiner for both practical and theory examinations conducted by Anna University - Chennai.
- Acting as Anna University Representative in Theory Examinations.
- Guided UG students in the Department of Electrical and Electronics Engineering for their projects conducted in university examination.
- Served as Placement In Charge from January 2017 to September 2018 at University College of Engineering Panruti. (A constituent college of Anna University, Chennai).

#### **MEMBERSHIPS**

- Life Member of the **Indian Society for Technical Education (ISTE)**, India. Membership No: LM 62442.
- Member of IRED – **The Institute of research engineers and doctors & student member (UACEE)** Membership No: AM: 101000290.

## **PERSONAL PROFILE:**

Name : **Dr. S.Satthiyaraj**  
Father's Name : **A.N.Shanmugam**  
Wife's Name : **Dr.Anandhi**  
Date of Birth : 13.02.1985  
Age / Sex : 35 / Male  
Nationality : Indian  
Passport No/Validity : S2861360 / 13-08-2028  
Hobbies : Playing Cricket, Listening Music  
Languages Known : Tamil, English,  
Residential Address : No: 108A, Shri Shanmugar Illam,  
30 Feet Road, Sri Ram Nagar,  
(Behind JIPMER)  
Pattanur, Villupuram District,  
Tamilnadu, India  
Pin-605111

## **DECLARATION:**

I hereby declare that the details furnished above are true to the best of my knowledge and belief.

Place: Panruti

**Dr.S.Satthiyaraj**