


SRI SAIRAM ENGINEERING COLLEGE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

1. Name : Dr . P.Shanmugapriya	
2. Designation:	Associate Professor
3. Qualification :	M.E.Ph. D
4. Area of Specialization :	ELECTRICAL
5. Experience :	Teaching : UG: 16years PG: 10 years Industry : nil
6. No. of workshop : FDP attended :	No. of workshops attended : 7 No. of FDP/STTP attended : 30 No. of workshops organized : 3
7. Publication :	Journal National : - International : 8 Conference National : 8 International : 7

8. Staff Achievements:	<ul style="list-style-type: none">• Delivered Lecturer during Anna University sponsored 7 days FDP on EE6503 –Power Electronics on June 4th 2015 on the topic “Forced commutated Chopper”
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Professional Experience: 16 Years

Total Teaching Experience: 16 years

- Associate Professor in Sri Sai Ram Engineering College from 1.10.22 to till date
- Assistant Professor in Sri Sai Ram Engineering College from 01.10.2010 to 30.09.22
- Lecturer in Sri Sairam Engineering College from 13.6.2008 to 31.9.2010.
- Lecturer in Panimalar Engineering College from 01.6.2006 to 15.5.2008
- Lecturer in S.A Engineering College from 26.6.2003 to 14.4.2004.

Areas of Interest

- Power Electronics
- Microprocessor and Microcontroller
- Embedded systems
- Power Electronics for Renewable Energy Systems
- Wind Energy Conversion Systems
- Power Quality
- Microcontroller Based System Design
- Design of Electrical machines

Research Title

Performance Enhancement of Power System Network by optimal Coordination of Distributed Generation Parameters – OCT 2022 ANNA UNIVERSITY

Society Membership

1. Indian Society for Technical Education (ISTE) LM131481
2. IEEE Senior member -94403969
3. International Association of Engineers(IAENG)- 321183

STARTUP

TECH QUEST CONSULTANCY-MSME REGISTERED (UDYAM-TN-08-0045380)

Under SRI SAIRAM TECHNO INCUBATOR FOUNDATION (start date:09/09/22)

PUBLICATIONS

International Journal

1. **Shanmugapriya, P.,** Kumaran, M.S., Baskaran, J. et al. Flexible Dispatch Strategy Adopted by Optimizing DG Parameters in a Real Time Power System Distributed Network. J.Electr.Eng.Technol. 17, 847–861(2022). <https://doi.org/10.1007/s42835-021-00938-8>
2. **P.Shanmugapriya** published a paper titled “Optimization of DG parameters in the distributed network in the presence of Battery Powered Energy Source using Differential Evolution algorithm” in Solid State technology vol 63,issue 6 **2020**
3. **P.Shanmugapriya** published a paper titled “**Comparative Study on Performance analysis of SEPIC/Modified SEPIC Converter with PI Controller**” **Test engineering and Management May - June 2020 ISSN: 0193-4120 Page No. 16863 - 16867**
4. **P.Shanmugapriya** published a paper titled “**Analysis of Variable Speed Micro Wind Energy Generator Using SEPIC Converter**” **International Journal of Emerging Trends in Engineering Research Volume 8. No. 4, April 2020**
5. **P.Shanmugapriya** published a paper titled “**Overcurrent and Earthfault Relay Coordination for Microgrid with Numerical Relay Features**” in **IJITEE ISSN: 2278-3075, Volume-9 Issue-3, January 2020**

6. **P.Shanmugapriya published a paper titled “IoT Based Approach in a Power System Network for Optimizing Distributed Generation Parameters”** [Computer Modeling in Engineering & Sciences, Volume 119, Number 3, June 2019, pp. 541-558\(18\)](#)
7. **P.Shanmugapriya published a paper titled “A Novel Control Technique of Bridge less Interleaved Boost Converter with Time Domain Parameters”** in IJARIE ISSN(O):2395-4396 in 2017.
8. **P.Shanmugapriya published a Paper titled “Analysis and Design of Soft Switching based Interleaved Fly back Converter for Photovoltaic Applications”** in International Journal of Engineering Science Invention Research & Development, e- ISSN: 2349 – 6185 Volume 2, Issue 8, February 2016.
9. **P.Shanmugapriya published a Paper titled “Design and Analysis of Three-Port SEPIC & Zeta Converter for Photovoltaic Applications”** in the International Journal of Novel Research in Electrical and Mechanical Engineering, ISSN: 2394-9678(online), Vol 03, issue 02, Jun 20 2016, Novelty journals
10. P.Anitha and P.Shanmugapriya (2012) **“Design and Simulation Of Pulse Density Modulation Based Series Resonant Inverter System”**, in International Journal of Communication Engineering Application, ISSN : 2230-8504;e-ISSN-2230-8512,Vol 03,Issue 01,Feb 2012, © 2011-Technical Journals Publishing,

International Conference

1. P.Shanmugapriya ,Presented a paper titled, “ Smart Parking using IOT” in IEEE International Conference On Power ,Energy ,control and Transmission Systems” on 8th and 9th December 2022.
2. P.Shanmugapriya ,Presented a paper titled, “ Hybridization of Supercapacitor and battery for fast charging of electric vehicles” in IEEE International Conference On Power ,Energy ,control and Transmission Systems” on 8th and 9th December 2022.
3. P.Shanmugapriya ,Presented a paper titled “Energy Saving through optimal DG dispatch with DSM for Residential Consumers” in IEEE International Conference On Power ,Energy ,control and Transmission Systems” on 8th and 9th December 2022.
4. P.Shanmugapriya, “Automatic switching of Hybrid Peltier Module for Electronic Application “ , in IEEE Technically sponsored First International Conference on Computational Science & technology held on 9th and 10th November 2022.

5. P.shanmugapriya, "A novel approach for image restoration using convolution network-based image denoising technique", AIP Conference Proceedings 2527, 040003 (2022); <https://doi.org/10.1063/5.0108299> Published Online: 14 October 2022.
6. P.Shanmugapriya, "Myocardial Prediction and Identification using Convolution Neural Networks" 2022 International Conference on Communication, Computing and Internet of Things, IC3IoT 2022 - Proceedings, 2022..DOI: 10.1109/IC3IOT53935.2022.9767935
7. P.Shanmugapriya, "Power Plant Automation Using SCADA in a Gas Insulated Substation 2022 International Conference on Communication, Computing and InternetofThings,IC3IoT2022 Proceedings, 2022DOI: 10.1109/IC3IOT53935.2022.9767890
8. P.Shanmugapriya, "IoT Based Warning System from the Threat of Wild Animals", 6th International Conference on Communication and Electronics Systems, ICCES 2021, pp. 550–553, 9489181DOI: 10.1109/ICCES51350.2021.9489181
9. P. Shanmugapriya, M. S. Kumaran, J. Baskaran, C. Nayanatara and P. Sharmila, "Optimal Placement of Distribution Generator by Incorporating Demand Response Strategy for Residential and Industrial User," *2021 4th International Conference on Computing and Communications Technologies (ICCCT)*, 2021, pp. 403-409, doi: 10.1109/ICCCT53315.2021.9711824.
10. M. SureshKumar, M. P. Shanmugapriya, A. Ramesh and M. Parthasarathy, "A Novel Recommended Approach for Optimized Smart Electricity using Deep Learning," *2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA)*, 2021, pp. 1-5, doi: 10.1109/ICAECA52838.2021.9675747.
11. M. Suresh Kumar, G. Janaki, S. Hariharan and **P. ShanmugaPriya**, "IoT Based Warning System from the Threat of Wild Animals," *2021 6th International Conference on Communication and Electronics Systems (ICCES)*, 2021, pp. 550-553, doi: 10.1109/ICCES51350.2021.9489181.
12. **P.Shanmugapriya** Presented paper on "IOT enabled temperature sensing system of molten metal in welding" *Materials Today: Proceedings*, 2021, 45, pp. 2514–2517
13. **P.Shanmugapriya** Presented paper on "Scheming Electrical Wheel Chair by Sensing Brain GDTAB Waves of Physically Challenged & Hamstrung People" in *ICPECTS 2020* held during 10th and 11th December 2020 .
14. **P.Shanmugapriya** Presented paper on "Optimization of Renewable Energy

Parameters for Maximizing Power Output” in ICPECTS 2020 held during 10th and 11th December 2020 .

15. P.Shanmugapriya Presented paper on “GA based Simultaneous Optimization of hybrid Distributed Generation in the Power System Network’ in ICPECTS 2020 held during 10th and 11th December 2020 .
16. P.Shanmugapriya Presented paper on the theme Water Crisis and Conservation (theme for special poster session titled “ADVANCED METHOD OF WATER TREATMENT BY NANO PARTICLES” in YOUNG SCIENTIST CONFERENCE at India International science Festival 2019 ,Kolkata.
17. **P.Shanmugapriya**, J.Baskaran, C.Nayanatara published paper titled “ **A Control Strategy adopted for improving Transient Stability in EESG based Wind Turbines**” in International Conference on Power, Energy, control and Transmission systems-2019 held during 27nd and 28th March 2019
18. **P.Shanmugapriya** Presented paper titled “**Gesture Controlled Bomb Deployer Bot**” in International Conference on Power, Energy, control and Transmission systems-2018 held during 22nd and 23rd February 2018.
19. P.Devipriya, T.Sneha, **P.Shanmugapriya** presented paper titled “**Design of Numerical relay For Over Flux and Over current protection in Transformers**” in International Conference on Power, Energy, control and Transmission systems-2018 held during March 2018
20. **P.Shanmugapriya** Presented paper titled “A Comparative Analysis on Different Control Techniques of Bridgeless Interleaved Boost Converter with Time Domain Parameters” International conference on Computational Power, Energy, Information and Communication-2017 held on March 22nd 2017
21. P.Shanmugapriya Presented paper titled “**Asymmetric Topology For Cascaded Sub- Multilevel Inverter Using Staircase Modulation Technique**” International conference on recent innovation in engineering & technology on 13th and 14th Feb 2015.
22. P.Shanmugapriya Presented Paper titled “ **Hybrid PWM based Z-source inverter applied to high power three level inverter fed induction motor**” in the international conference on Computation of power, energy, information and communication at Adhiparasakthi Engineering College on 17th and 18th April 2013.

23. P.Shanmugapriya Presented Paper titled “**Bridgeless Sepic Power Factor Correction rectifier for unity power factor**” in the International Conference on Computational Intelligence and advanced manufacturing Research” at Vel’s University on 5th and 6 th April 2013.
24. P.Shanmugapriya Presented Paper titled “Obtaining Unity power factor using two Quadrant shunt active filter” in the International Conference on Computing Techniques, Embedded System and Drives at PPG Institute of Technology on 7-9th march 2012.
25. P.Shanmugapriya Presented paper titled “**Design and Simulation of Pulse Density Modulation based Series Resonant Inverter System**” in the International Conference on ICICES-2012, at Coimbatore Institute of Technology

National Conference

- a. Presented paper titled “**Comparative study Between 2-D Method & Ferrari method to Control Torque of IPMSM**” in National conference on Innovation & challenges in Electrical and Electronics Engineering at Sri Sairam Engineering College on 18th Feb 2014.
- b. Presented Paper titled “ **Hybrid PWM based Z-source inverter applied to high power three level inverter fed induction motor**” in the national conference on Recent trends in renewable energy technology at RRASE college of engineering on 23 Feb 2013
- c. Presented Paper titled “ **Comparative Analysis of SEPIC Power Factor Correction Rectifier for Unity Power Factor and Conduction loss**” in National Conference on Recent Trends in renewable energy Technology at RRASE college of engineering on 23 Feb 2013
- d. Presented Paper titled “**Improving the efficiency of series resonant inverters by pulse density modulation**” in the National Conference on Technological Advancement in Power system and Power Electronics Engineering at Eswari Engineering College on 2012
- e. Presented Paper titled “**Study of two Quadrant active Power Filters using Voltage Source PWM converters for harmonic compensation**” in the National conference on Innovative Techniques in Power Engineering and Drives at Vellammal engineering college on 22nd March 2012

- f. Presented paper titled **“Power Factor Correction of Single Phase Rectifier Based On Two Quadrant Shunt Active Filter”** in the National Conference On Technological advancements in Power system and Power Electronics Engineering at Sri Venkateshwara College of Engineering on 17th and 18th Feb 2012
- g. Presented Paper title **“A Novel Technique for power factor correction using Active Filter”** in National conference On Modern Trends in Electrical and Electronics System on 22nd and 23rd march 2006

Seminar & Training attended

1. Participated in the AICTE Recognized Faculty Development Programme on **MATLAB - Artificial Intelligence and Optimisation Techniques** 21/11/2022 to 25/11/2022 (One Week) at NITTTR, Chandigarh.
2. Participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online Elementary** FDP on **" Nature Inspired Optimization Techniques"** from **2021-7-19** to **2021-7-23** at **National Institute of Technology Delhi**.
3. Participated in the Faculty Development Programme (FDP) on **“Interactive Approaches in Handling Renewable Energy Systems Laboratory for the New Normal”** organized by Sri Sivasubramaniya Nadar College of Engineering during **June 29 – July 02, 2021**.
4. Participated in the Online AICTE Recognized Faculty Development Programme on **Development of Residential Micro grid (in collaboration with Typhoon)** from **07/06/2021** to **11/06/2021** Conducted by NITTTR, Chandigarh
5. Participated & completed successfully AICTE Training And Learning(ATAL) Academy **Online FDP** on **" Electrical & Computer Engineering"** from **2021-1-4** to **2021-1-8** at **Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur**.
6. Participated & completed successfully AICTE Training And Learning(ATAL) Academy **Online FDP** on **" Learning Management Systems”** from **15-3-2021** to **19-3-2021** at **NITTR, Chennai**.
7. Participated & completed successfully AICTE Training And Learning

(ATAL) Academy Online FDP on "Artificial Intelligence" from 04-05-2020 to 08-05-2020 at MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABA.

8. Attended Five days FDP on RENEWABLE ENERGY SYSTEMS from 8th June to 12th 2020 at Panimalar Institute of Technology through online mode .

9. Participated & completed successfully AICTE Training And Learning

(ATAL) Academy Online FDP on "Artificial Intelligence" from 04-05-2020 to 08-05-2020 at MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABA

10. Successfully completed the ARPIT Course for Career Advancement Scheme (CAS) promotion Big Data Analytics For Smart Grid with a "B" Grade in the proctored examination held on 16.02.2020 NITTTR Chandigarh

11. Completed a course on an online learning initiative of Indian Institute of Technology Bombay. LaTeX101x: LaTeX for Students, Engineers, and Scientists an online course conducted from 24 September 2019 to 2 December 2019 secured grade A+

12. Participated & completed successfully AICTE Training And Learning (ATAL) Academy FDP on "Artificial Intelligence" from 04-12-2019 to 08-12- 2019 at IIITDM Kancheepuram.

13. Two weeks AICTE Sponsored FDP on “Challenges of Integrating Wind and Solar into the Electricity Grid using information Communication Technology”
Department of Electrical and Electronics Engineering, RMK Engineering College, from 14th June to 27th June 2019.

14. Three days TEQIP-III Sponsored Workshop on “Energy Conclave 2018”
Department of Electrical and Electronics Engineering Thiagarajar College of Engineering, Madurai during 17-19, Dec 2018.

15. “Two days International level Hands on Workshop on Smart Microgrids And Energy Storage using HOMER” organized by School of electrical Engineering (SELECT), Vellore Institute of Technology ,Chennai from 9th to 10th March 2018

16. AICTE Sponsored “Two Week Faculty Development Programme on Smart Grid and Internet of things (IOT): The Future Energy Delivery Systems”
organized by Sri Ramakrishnan engineering college from 27th Nov to 10th Dec 2017.

5. National level Faculty development program on Electrical Simulation Software
organized by Sri Sairam Engineering college on 6th to 10th Nov 2017.

6. **Simulation workshop on Power Electronics & Electric drives** organized by SSN college of Engineering on 5th and 6th Aug 2016.
7. Workshop on **Simulation of Power Electronic Circuits** from 21-4-15 to 23-4-15 at Sri SaiRam Engineering College
8. National Level **Seminar on Sustainable energy for all ideas and approaches with the focus on smart micro grid** Organized by VIT –Chennai on 22nd Mar 2014
9. AICTE sponsored **National Seminar on Current Trends and Future role of Renewable energy** at SSEC on 8& 9 Oct 2013
10. National **Workshop on” Advanced Power Electronics Interface for Distributed Energy”** at SSN college of engineering on 20 &21st Sep 2013
11. **FDP on Applications of FACTS in Power Electronics & Power Systems** on 27th Feb 2013 at SSEC.
12. National Level **Workshop on Smart Grid Technologies : Opportunity and Challenges Organized** by VIT –Chennai on 5th Nov 2012
13. Faculty Development Programme on **Power Flow Solution and Demo on CYME Power Engineering Software** at SSEC on 27th Jan 2010.
14. National Workshop on **Advance in Design and control for Performance Enhancement In Permanent Magnet Motors** Conducted by Pondicherry Engineering College and DRDO on April 20th and 21st 2011
15. Internal Quality Auditor Training Programme on Quality Management System and Audit Training ISO 9001-2008 Creative Management Consultants, Chennai, 11th and 12th October 2011
16. National Seminar On **Research Methodologies In Next Generation Using OPNET** at SSEC from 19-8-10 to 21-8-10
17. Workshop on Recent Trends In **Evolutionary Computation In Electrical Engineering** Organized by B.S Abdur Rahman University On 2nd Nov 2010
18. AICTE Sponsored Staff Development Programme (SDP), **Mobile Networks**, Sri SaiRam Engineering College, Chennai – 19th to 30th Jan 2009.
19. Attended Faculty Development Program on **Control System** at SSEC on 13th Feb 2009
20. Participated in **Mission 10X Workshop** at Sri SaiRam Engineering College, Nov 2- Nov 6 2009 conducted by WIPRO.
21. Workshop on **Power Electronics and Drives** organized by Vi Microsystems Pvt Ltd, Chennai on 23rd Dec 2009

22. Faculty Development Program on **BioMedical Instrumentation** at Sri Sairam Engineering College from 3rd to 15th Dec 2007.

23. Faculty Development Program on **Non-Linear Control System** at College Of Engineering, Guindy From 4th to 16th Dec 2006

24. Faculty Development Program on **VLSI Design and Application** at Panimalar Engineering College in Sep 2006

Industrial Training attended

1. Undergone 6 days industrial training program at Kasa Anlagen India Pvt.Ltd Chennai from 02.03.22 to 8.03.22.

2. Industry Powered Faculty development program on EMERGING SMART TECHNOLOGIES during 28&29th Sep 2022 at L&T, Chennai

Outside world-Programs

1. Acted as Judge for TOYCATHON 2021 under AICTE
2. Volunteered as proctor to guide and oversee competing teams for the IEEEExtreme 15.0 programming competition that hosted +12,900 participants 23rd October 2021.
3. Conducted UI/UX program for IX std students of Sairam Vidhyalaya on 10th Oct 2022 through a STARTUP
4. Acted as Pre-scanning evaluator in Smart India Hackathon 2022

Other Activities

- Dept NBA Coordinator and Test Co-ordinator
- Microprocessor and Microcontroller Lab Incharge, Sri Sairam Engg College,
- Department Placement Co-ordinator for 2 years in Sri Sairam Engg College,
- Organizing – National Conference on , Sri Sairam Engg College
- Examiner in Anna University, other Universities.
- Guiding Students Projects (internal and external).
- Presented AICTE MODROB project at AICTE, New Delhi.

- Actively involved in all Departmental Activities like Technical Symposium, Industrial Visit, Educational Tours, Workshops and Seminars

No. of Projects Completed / On-going as Chief Coordinator / co-investigator in the Following format:

S.No.	Name of the Funding Agency(AICTE/ Others)	Name of the Scheme	Programme Title	Year of Funding	Duration	Amount Sanctioned	Status Completed /Ongoing
1	AICTE	MODROB	MODERNISATION OF CONTROL SYSTEMS LABORATORY	2012	1YEAR	10,00,000	completed

Patents:

Faculty Name	Title Of Invention	Inventors	Application Name	Date of Filing	Publication Date(U/S 11A)	Status
	ENHANCED DESIGN OF AUTOMATED STILL BASED ON STEAM GENERATION	P.SHANMUGAPRIYA J.AISHWARYA S.SHIVA RANCHANI	201741027973	7/08/2017	11/8/2017	Request for Examination
	HEURISTIC WINDMILL STRUCTURE CONSIDERING BLADE DESIGN TO OBTAIN THE MAXIMUM POWER OUTPUT	P.SHANMUGAPRIYA C.NAYANATARA P.SHARMILA	202041045363 A	19/10/2020	30/10/2020	PUBLISHED
	IOT BASED AUTOMATED TOILBOTS	P.SHANMUGAPRIYA C.NAYANATARA P.SHARMILA	202041045363 A	19/10/2020	30/10/2020	PUBLISHED

P.Shanmugapriya		D.ARULSELVAM PUTHLIBAIG				
	POWER PRODUCTION FROM WASTE WATER USING MICROBIAL FUEL CELL HAVING CONDUCTIVE POLYMER ELECTRODES	1.DR.G.PUTHILIB AI 2.MS.P.SHANMU GAPRIYA 3.MS.R.JEYASHRI 4.DR.S.VASUDHE VAN	202041054209	14/12/202 0	18/12/2020	Published

Programmes Organized

- 15 days AICTE Sponsored and Faculty Development Program on Transmission and Distribution at Sri SaiRam Engineering College, Chennai in association with IEEE PES society
- Conference Co-Chair for IEEE Sponsored International Conference on Power, Control and Transmission Systems (ICPECTS) in the year 2020.
- Conducted awareness program in association with IEEE MS for 3 days as alumni talk on 1st June to 3rd June 2020 for EEE students
- Organised Knowledge Sharing Session on “DESIGNING PCB USING AUTODESK” on 29th April 2021 in association with IEEE PES society
- Organized Knowledge Sharing Session on “DESIGNING & SIMULATION OF ARDUINO PROJECTS (IoT)” on 08.05.21 in association with IEEE PES society.
- Inaugrated IEEE EDS society as Chapter Advisor and arranged a key note talk on “Micro to Nano Semiconductor devices and Application
- Sri Sairam Engineering College with IEEE EDS student branch organized SAIRAM MUN 2.0 for School students to promote awareness about Model United Nations .
- Sri Sairam Engineering College EEE department with IEEE EDS student branch organized “SIH awareness program “ for Smart India Hackathon 2022.
- . Sri Sairam Engineering College EEE department with IEEE EDS student branch proudly presents Poster presentation and Quiz on 7.5.22