


# Sri Sai Ram Engineering College

## Department of Electrical and Electronics Engineering

<b>Name:</b> Dr. C. PRIYA <a href="mailto:priva.eee@sairam.edu.in">priva.eee@sairam.edu.in</a>	
Designation:	Associate Professor
Qualification:	M.E, Ph.D
Area of Specialization:	Controller Design, Optimization, Measurement and Instrumentation, Process Control
Experience:	Teaching- 8 Years 6 Months Awarded UGC Research Fellowship (JRF) Under <b>SCIENCE FOR MERITORIOUS STUDENTS SCHEME</b> for 2 Years. Research- 3.5 yrs  Obtained Guide ship in Anna University and currently a Recognized Supervisor in <b>Faculty of Electrical Engineering. Reference No: 3330016,</b> Date : 30.01.2019
Date of Joining the Institution	05.06.2017
Number of Workshops/ FDP Attended:	10/17
Publication:	Patent: 1(Published), 1 FER submitted Journal: International: 16 National:1  Google Scholar Link <a href="https://scholar.google.com/citations?view_op=list_works&amp;hl=en&amp;authuser=2&amp;user=YES3cb4AAAAJ&amp;gmla=AJsN-F786Kutjlu0NK4-ZnlVGvvGA2ceOEtSJMTxDfrnJhNfcHqCKS3gi-Bty_84prAvhdxynk8U_FZQyqi0PDfbqQwLeE97bub_FoN2CErZOcmS-QPsTKIvYPTIsYFZGMCRJWULur">https://scholar.google.com/citations?view_op=list_works&amp;hl=en&amp;authuser=2&amp;user=YES3cb4AAAAJ&amp;gmla=AJsN-F786Kutjlu0NK4-ZnlVGvvGA2ceOEtSJMTxDfrnJhNfcHqCKS3gi-Bty_84prAvhdxynk8U_FZQyqi0PDfbqQwLeE97bub_FoN2CErZOcmS-QPsTKIvYPTIsYFZGMCRJWULur</a>
	Conference: National: 02 International: 13

<p>General:</p>	<p>Life time member of Professional Bodies such as</p> <ul style="list-style-type: none"> <li>• Instrument Society Of India (ISOI),</li> <li>• The Indian Society for Technical Education (ISTE)</li> <li>• International Standard of Research and Development (ISRD)</li> <li>• Institute of Scholars (InSc)</li> <li>• IEEE</li> </ul> <p>Autonomous Coordinator, Smart India Hackathon Coordinator, Website Coordinator, Mini Project Coordinator, CII Coordinator, Video Class Coordinator, Class Coordinator</p>
<p>Staff Achievement</p>	<ul style="list-style-type: none"> <li>• Presented 2 papers in International Conference abroad and got the <b>Best Paper Award</b> for one of the papers in the International Conference WCEA-2019 at Bali, Indonesia.</li> <li>• Elite in NPTEL Online Certification for the course “Introduction to Soft Computing”</li> <li>• Obtained <b>TNSCST project grant 2 times</b> for the Academic Year 2018-2019 &amp; 2019-2020.</li> <li>• Contributed as a <b>Session Chair</b> in the International Conference. <a href="https://eie.sairam.edu.in/awards-achievements/#">https://eie.sairam.edu.in/awards-achievements/#</a></li> <li>• Acted as a Guide for the Team of students (2014-2018) who won the “Most Popular Project Award” In the National Level Quest Ingenium 2017. <a href="https://eie.sairam.edu.in/wp-content/uploads/sites/7/2019/05/special-achievements.pdf">https://eie.sairam.edu.in/wp-content/uploads/sites/7/2019/05/special-achievements.pdf</a></li> </ul>

S. No.	Degree	Year of passing	College	University	Specialization	% of mark s/ CGP A	Class obtained	Full Time/ Part Time
1.	Ph.D	<b>Viva-Voce held on 24<sup>th</sup> Jan 2017</b>	College of Engineering	Anna University, Chennai	<b>Faculty of Electrical Engineering (Process Control)</b>	-	-	Full time for initial 3.5 years (Awarded UGC JRF Under <b>Science for Meritorious Students Scheme</b> ), later converted to Part Time.
2.	M.E	2010	College of Engineering	Anna University, Chennai	Control & Instrumentation Engg.	8.53 CGPA	<b>First Class with Distinction</b>	Full Time
3.	B.E	2002	Bharath Institute of Science & Technology	Madras University, Chennai	Instrumentation & Control Engg.	77.11 %	<b>First Class with Distinction</b>	Full Time
4.	XII	1998	Fathima Basheer Mat. HSS	State Board	Maths, Physics, Chemistry, Computer Science.	91.08 %	-	Full Time
5.	X	1996	Adarsh Senior Sec. School	CBSE	--	75.6%	-	Full Time

**PhD Thesis Title:**

CONTROL OF NONLINEAR SISO AND MIMO SYSTEMS USING HYBRID OPTIMIZED CONTROLLERS

**Research Interests:**

System Identification, Controller Design and Optimization techniques for Process Control Applications, IOT, Measurement and Instrumentation.

**Funds Received from TNSCST, etc:**

- Obtained TNSCST grant for the project titled “ARGC- Automatic Railway Gate Controller Using Microcontroller for the Academic Year 2018-2019 in Feb 2019.

- Obtained TNSCST grant for the project titled “An IOT based Detection of chemical in fruits and vegetables”for the Academic Year 2019-2020.

**Patents:**

1. Title: Computation and Governance Of Driver’s Performance Using Machine Learning  
Filed on : 29.12.20  
Published on : 8.1.21  
Application No. :202041056851
2. Title: A Touchless Flushing Method in Corona Isolation Ward  
Filed on: 5.1.21  
Published on:8.1.21  
Application No.:202141000386

**Reviewer:**

International Journal of Electronics, Electrical and Communication Engineering

**Experience:**

S. No	Name of the Institution	Period of Experience
1.	Sri Sairam Engineering College, West Tambaram, Chennai	5.6.2017 to till date
2.	RMK Engineering College, Kavaraipettai, Chennai	14.5.2014 to 18.5.2017
3.	College of Engineering, Anna University.	05 Months (Jan 2011-May 2011)

**Theory Subjects Handled:**

- Applied Soft Computing
- Basic Electrical and Instrumentation Engineering
- Electronics Engineering
- Analytical Instruments
- Fiber Optics and Laser Instruments
- Environmental Science and Engineering
- Electrical Measurements
- Measurements and Instrumentation
- Computer Control of Processes
- Principles of Management
- Power Plant Instrumentation
- Industrial Instrumentation – II
- Process Control
- Micro-Electro Mechanical Systems
- Advanced Instrumentation System
- Embedded Systems
- Digital Logic Circuits
- Biomedical Instrumentation

**UG projects Guided:**

S. No	Title of the Project work	Period of Guidance
1.	Power Train Modeling of an Electric Vehicle	January to April 2022
2.	IoT BASED SMART HOME SECURITY	January to April 2020
3.	Brainwave Controlled Bionic Arm	January to April 2019
4.	A Smart Touch Based Instant Toxic Content Detection System	January to April 2019
5.	Mobile Microscope for the detection of Pathogenic Cells using Image processing	January to April 2018
6.	Overhead Cable Fault Detection System	January to April 2017
7.	Portable Band as Eaves Dropper of Human Activities with Notifier	January to April 2017
8.	A Real-Time Embedded System for Monitoring of Cargo Vehicles Using Controller Area Network (CAN)	January to April 2017
9.	Zigbee Based High Efficient Smart Metering System	January to April 2016
10.	Automatic Power Line Monitoring Safety System.	January to April 2016
11.	Automated Health Alerts Using In-Home Sensor Data For Health Assessment By Embedded System	January to April 2016

**SKILL DEVELOPMENT PROGRAMMES:****Workshop Attended**

S. No.	Programme	Period	Institution
1.	Workshop on Control Theory and its Applications to Practical Problems	October 16-18, 2008	Electrical and Electronics Engineering, Anna University, Chennai.
2.	Workshop on Application of Metaheuristics for Engineering Optimization	March 20-21, 2012	Industrial Engineering, Anna University, Chennai.
3.	Workshop on PSO and variants: concepts and basic implementation in Matlab	Feb. 21-22, 2013	Electrical and Electronics Engg. Dept, Anna University, Regional Centre, Coimbatore.
4.	Instrumentation Detail Engineering Workshop	23-25 July 2018	Sri Sairam Engineering College

5.	Ideation and Proposal Formulation Workshop	9, Nov 2018	IIT , Madras
6.	Workshop - Quality Management system and Audit Training	8, June 2018	Creative Management Consultants at SSEC
7.	Workshop on Intellectual Property Rights and Innovations	20, July 2019	Organized by SSEC in Association with Centre for Intellectual Property Rights (CIPR), Anna University, Chennai.
8.	Workshop on Introduction to IOT with Machine Learning	3 <sup>rd</sup> and 4 <sup>th</sup> , OCT 2019	Organized by DEEE, St. Peters Institute of Higher Education and Research, Chennai under the Aegis of Experts Hub Industry skill development centre.
9.	Workshop on Patent Searching, Drafting and Filing	29th, May to 2 <sup>nd</sup> , June 2020	Organized by Panimalar Institute of Technology in Association with Turnip Innovations and Exilyze Intellectual Services, IEEE Computer Society and Computer Society of India.
10.	AutoCAD Hands-on Training	3,4,10,11 Dec 20	Sairam Robotics club in Association with Dept. of Mechanical Engineering, SSEC.

### FDP Attended

S. No.	Programme	Period	Institution
1.	Special lecture on How to do a good Ph.D thesis	April 10-12, 2012	Centre for International Affairs, Anna University, Chennai.
2.	Faculty Development Training Programme on Power Electronics	June 4-10, 2015	College of Engineering, Anna University, Chennai.
3.	FDP on Internet of Things	5, May 2016	R.M.K. Engineering College
4.	FDP on Basic Electrical, Electronics, Measurement and Instrumentation Engineering.	Nov8-11, 2017	Rajalakshmi Institute of Technology
5.	FDP- Methodologies & practices for Profitable Research through patterns and IPR	4, Jan 2019	Conducted by Allinnov R&D Pvt Ltd, India at Sri Sairam Engineering College.
6.	FDP-Artificial Intelligence	5-11 December 2019	DEEE, SSEC

7.	Webinar on R&D Proposal Writing for Faculties	12.6.2020	DME, SSEC
8.	FDP on Electro Devices, Microprocessors an Image Processing	11 -15 May 2020	Dept. of EIE, SRM Valliammai Engineering College.
9.	IIC Online Sessions	28 April – 22 May 20	Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi
10.	Webinar on R& D proposal writing for Faculties	12 June 20	Dept. of Mechanical Engineerin, Sri Sairam Engineering College.
11.	FDP on Hardware-in-the-Loop Simulation:Learning and Teaching Tool from Typhoon HIL	31 Aug – 4 Sep 2020	School of Electrical Engineering, Vellore Institute of Technology, Chennai.
12.	AICTE Sponsored Six Days online Short Training Programme on Medical Image Analysis	2-7 Nov 20	V.S.B. Engineering College, Karur.
13.	ATAL FDP on Cyber Physical Systems	7-11 Nov 20	Indian Institute of Information Technology Pune.
14.	ATAL FDP on Internet of Things	24-28 Nov 20	Army Institute of Technology
15.	ATAL FDP on Artificial Intelligence	7-11 Dec 20	Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal
16.	ATAL FDP on Smart Grid – Key to a Sustainable Future	28.6.21 to 2.7.21	Dr. S.& S.S.Ghandhy Government Engineering College, Surat
17.	Inculcating Universal Human Values in Technical Education	12.7.21 to 16.7.21	AICTE

<b>Nptel Online Certification Course</b>			
<b>S.No.</b>	<b>Course Title</b>	<b>Period</b>	<b>Type of Certificate</b>
1.	Introduction to Soft Computing	8 Weeks Course, Feb March 2018	Elite
2.	Nonlinear and Adaptive Control	4 Weeks Course, Aug Sep 2018	Successfully Completed
3.	Enhancing Soft Skills and Personality	8 Weeks Course, April 2019	Elite
4.	Effective Engineering Teaching in Practice	4 Weeks Course Jan Feb 2021	Elite

### **Certificate Courses**

- Successfully Completed NITTT modules 1 to 5

- Successfully Completed 11 courses in Coursera.
- Successfully Completed 4 Udemey Courses.
- Successfully completed 2 courses in NASSCOM

### **Programs Organized:**

- Mini Project for the Academic Year 2017-2018
- Steering Committee member at the “International Conference on Computing, Communication and Control” Organized by SSEC held on 28.02.2020 and 29.02.2020.
- Contributed as a organizing Committee member for the International Conference ICSESCM-19, Chennai.
- Contributed as coordinator for Virtual Robotic Quiz organized by SAIRAM ROBOTICS CLUB.

### **Guest Lecture Delivered:**

- Delivered Guest Lecture on the Topic “General PID and Fractional Order PID controller” on 12<sup>th</sup> June 2019 in ISTE sponsored FDP on Process Modelling and Control from 11.6.19 to 15.6.19 at Department of Electronics and Instrumentation Engineering , Sri Sairam Engineering College, Chennai.
- Delivered Guest Lecture on the Topic “Enhancing Soft Skills and Personality” on 13<sup>th</sup> December 2019 in the ISTE and ISOI sponsored Five Days FDP on “Innovation in Teaching Pedagogy” from 10.12.2019 to 14.12.2019 at Department of Electronics and Instrumentation Engineering , Sri Sairam Engineering College, Chennai.
- Delivered Guest Lecture on the Topic “Insights of Cyber Physical System in Industry 4.O” on 21<sup>st</sup> January 2021 in the AICTE Sponsored six days virtual short term training Programme (STTP) on Applications of Artificial Intelligence towards Industry 4.O” from 18.1.2021 to 22.1.2021.



## Publications:

### International Journal

1. **Priya, C & Lakshmi, P** 2012, 'Particle swarm optimization applied to real time control of spherical tank system', Int. J. Bio-Inspired Computation, vol. 4, no. 4, pp. 206-216. **Impact factor (Clarivate Analytics) 2020- 1.914 (5 Year Impact Factor 2.771) (Listed in Anna University Annexure Journals 2021)(SCIE and Scopus Indexed Journal, UGC)**<https://doi.org/10.1504/IJBIC.2012.048065>
2. **Priya Chandrasekar & Lakshmi Ponnusamy** 2017, 'Research on variable area hybrid system using optimized fractional order control and passivity – based control', Computers and Electrical Engineering, vol. 57, pp.324-335. **Impact Factor 2.663 (Listed in Anna University Annexure Journals in 2018 journal list) (SCIE, Web of Science & Scopus Indexed Journal)**
3. **Priya Chandrasekar & Lakshmi Ponnusamy** 2015, 'Comparison of GSA and Hybrid PSO-GSA Tuned Controller for a Nonlinear System, International Journal of Enterprise Network Management, vol. 6, no. 3, pp. 175-184. **(Listed in Anna University Annexure Journals in 2018 journal list) (Scopus Indexed Journal, UGC).**
4. **Priya Chandrasekar & Lakshmi Ponnusamy** 2014, 'Comparative study of controllers for a variable area MIMO interacting nonlinear system', International Journal of Engineering and Technology, vol. 6, no. 1, pp. 227-235. **(Anna Univ. Annexure II 2013 Version) (Scopus Indexed Journal).**
5. **Priya Chandrasekar & Lakshmi Ponnusamy** 2014, 'Experimental Investigations on Hybrid PSO-GSA Optimised Passivity Controller for a Nonlinear System', International Journal of Applied Engineering Research, vol. 9, no. 25, pp. 8257-8231. **(Anna Univ. Annexure II 2014 Version) (Scopus Indexed Journal, UGC).**
6. **Priya Chandrasekar and Lakshmi Ponnusamy** (2018), 'Hybrid PSO-GSA Optimized Fractional Order Controller for a Variable Area TITO Interacting Nonlinear System in Real Time', Journal of Advanced Research in Dynamical and Control Systems, 10-special issue, 2018, pp.2164-2173.**(Scopus Indexed Journal)**
7. **Dr.C. Priya, G. Monisha, K. Kavitha, S. Suvetha and M. Vanmathi** (2019), A smart touch based instant toxin content detection system, Journal of International Pharmaceutical Research 46(1): 758-761.
8. **Dr Priya C., Lingeswaran K., Suryamegana P.S.** (2019), Mobile Microscope Supported by Whirling Centrifuge for the Effective Detection of Pathogenic Cells, International Journal of Research and Analytical Reviews (IJRAR), May 2019, Vol.6, Issue 2, pp:155-159. **(UGC Journal)**

9. **Priya C**, Lakshmi Ponnusamy, Ramya S, Aparna S, Rajeshwari M (2020), Investigations on Nonlinear TITO System using Passivity Based Control in Real Time, International Journal of Engineering Sciences, Jan 2020, Vol.12, No.4, pp.123-128, ISSN 0976 – 6693 (**UGC Approved Journal**) <https://doi.org/10.36224/ijes.120402>
10. **Dr. C Priya**, Devaharigharan B, Thamarai Kannan A, Lokesh M, Gokul Seshanth P (2020), IoT based Smart Home Security, International Research Journal of Engineering and Technology (IRJET), April 2020, Vol.7, No.4, pp.4606-4610. e-ISSN: 2395-0056, p-ISSN: 2395-0072 (**UGC Approved Journal**)
11. **Priya C** and Lakshmi Ponnusamy (2020), Passivity based Approach for the Level Control of Spherical Tank Process, International Journal of Engineering Sciences, April 2020, Vol.13, No.1, pp.1-6, ISSN 0976 – 6693 (**UGC Approved Journal**) <https://doi.org/10.36224/ijes.130101>
12. **Dr. C. Priya**, Aparnaa G, Deepthi E, Poornima Rao B (2020), Smart Irrigation System using Solar Power and Cost Effective Moisture Sensor, Test Engineering and Management, May 2020, Vol.83, pp. 13404.
13. **Priya C**, Lakshmi P (2020), DESIGN OF CONTROLLERS FOR SEXTUPLE TANK PROCESS, International Journal of Modern Agriculture, Volume 9, No.4, 2020 ISSN: 2305 – 7246, pp.417-427. <http://www.modern-journals.com/index.php/ijma/article/view/231>
14. **Priya C**, Sanjay B, Aniruthan M, Nishanth I (2020), Brainwave Controlled Bionic Arm, Studies in Indian Place Names (**UGC Care Journal**), Vol.40, Issue 3 (s1), ISSN: 2394-3114, pp.78-84. <http://archives.tpnsonline.org/vol-issue/vol40-issue3s1.pdf>
15. Dr. C. PRIYA, V.Chithra, Sanjay B, M.Aniruthan (2020), Design and Development of Holographic Fan, Ilkogretim Online - Elementary Education Online, Vol 19 (Issue 2): pp. 1809-1816, doi: 10.17051/ilkonline.2020.02.696764. (**UGC Care Journal**)
16. Dr. C. Priya (2021), THWART POWER FAILURE ATTACKER NODE IN DAIHAODV MANET WITH DIRECTIONAL ANTENNAS, Design Engineering, Issue 6, ISSN :0011-9342, pp. 7247-7259.

17. Dr. S. Anitha Kumari, **Dr. C. Priya** (2021), Current Sensor Fault Detection and Isolation in Doubly Fed Induction Generator, Journal of Physics: Conference Series, doi:10.1088/1742-6596/2007/1/012045, pp.1-10 (**SCOPUS**).

<https://iopscience.iop.org/article/10.1088/1742-6596/2007/1/012045/pdf>

## International Conference

1. **Priya C.**, Lakshmi P., 'Design of Fractional Order Controller for Nonlinear System', International Conference on Future Engineering Trends (ICFET) 2010, Saveetha University, April 29 & 30, 2010, pp. 127-131.
2. **Priya C.**, Lakshmi P., 'Fractional Order Controller Design and Particle Swarm Optimization Applied to a Nonlinear System', IEEE-International Conference on Recent Trends in Information Technology (ICRTIT 2011), MIT, Anna University, Chennai, June 3-5, 2011, pp. 959-964.
3. **Priya C.**, Lakshmi P., 'Design of Controllers for sextuple tank process', International Conference on Advances in Engineering, Science and Management (ICAESM 2012), E.G.S. Pillay Engineering College, March 30 & 31, 2012.
4. **Priya Chandrasekar**, Lakshmi Ponnusamy, 'Passivity based level controller design applied to a nonlinear SISO system' IEEE-International Conference on Green Computing, Communication and Conservation of Energy (ICGCE 2013), RMD Engineering College, Kavaraipettai, December 12-14, 2013.
5. **Priya Chandrasekar**, Lakshmi Ponnusamy, 'Comparison of GSA and Hybrid PSO-GSA tuned controller for a nonlinear SISO system', International Conference on Modeling, Optimization and Computing (ICMOC 2014), Noorul Islam University, Kumaracoil, April 10 & 11, 2014.
6. Surya Meghana P S, Kannan C, Lingeshwaran K, **Priya C.**, 'Detection of Malarial Parasites Using Cell Phone Microscope', Proceedings of International Conference on Computing, Communication and Drastic Innovations in Energy Thrive (IC3DIET-PP-104, University College of Engineering, Panruti, India, 28<sup>th</sup> February and 1<sup>st</sup> March, 2018.
7. **Priya Chandrasekar**, Lakshmi Ponnusamy, 'Hybrid PSO-GSA Optimized Fractional Order Controller for a Variable Area TITO Interacting Nonlinear System in Real Time, 6<sup>th</sup> International Conference on Chip, Circuitry, Current, Coding, Combustion & Composites (i7c-2018), Organized by Sri Sairam College of Engineering & Institute for Engineering Research and Publication (IFERP), Bengaluru, Karnataka, 28<sup>th</sup> – 29<sup>th</sup> November 2018, pp.30.
8. **C Priya**, G Monisha, K Kavitha, S Suvetha, M Vanmathi, 'A Smart Touch Based Instant Toxin Content Detection System', Proceedings of the International Conference on Science and Innovative Engineering 2019, Jawahar Engineering College, 24<sup>th</sup> March 2019, pp.131.

9. **Priya C**, Lakshmi Ponnusamy, Ramya S, Aparna S, Rajeshwari M (2020), Investigations on Nonlinear TITO System using Passivity Based Control in Real Time, Proceedings of 4<sup>th</sup> World Congress on Engineering and Applications (WCEA-2019), Bali, Indonesia, pp.16.
10. **Priya C** and Lakshmi Ponnusamy (2020), Passivity based Approach for the Level Control of Spherical Tank Process, Proceedings of 4<sup>th</sup> World Congress on Engineering and Applications (WCEA-2019), Bali, Indonesia, pp.19.
11. **Dr. C. Priya**, Aparna G, Deepthi E, Poornima Rao B (2019), Smart Irrigation System using Solar Power and Cost Effective Moisture Sensor, International Conference on Science Engineering and Supply Chain Management (ICSESCM-19), 22nd - 23rd November' 19, Chennai, India, pp.8.
12. Dr. S. Anitha Kumari, **Dr C. Priya**, Current Sensor Fault Detection and Isolation in Doubly Fed Induction Generator, Second International Conference on Instrumentation, MEMS and Biosensing Technology (ICIMBT-2021), 18-20 Feb 2021, SRM Institute of Science and Technology, Kattangulathur.
13. V. Chithra; Jeyashri. R; Deepashri. R; K. Prathibanandhi; C. Priya, Smart Sprinkler System Using Raspberry Pi, 2022 **IEEE** International Conference on Communication, Computing and Internet of Things (IC3IoT), 10-11 March 2022, Sri Sairam Engineering College, Chennai.  
DOI: 10.1109/IC3IOT53935.2022.9767981

### **National Conference**

- 1. Priya C.,** Lakshmi P, 'Experimental Investigations on Hybrid PSOGSA Optimized Passivity Controller for a NonLinear System', National Conference on Emerging Trends in Medical Electronics, Sensors and Instrumentation, Jeppiaar Engineering College, January 23 & 24, 2015.
- 2. Priya Chandrasekar,** Lakshmi Ponnusamy, 'Hybrid PSOGSA Tuned Controller for a Variable Area MIMO Interacting Non-Linear System', CSIR sponsored National Conference on Computing and Communication (NCCC 2015), Anna University, Tirunelveli, May 4 & 5 2015.