



# Sai SAI RAM INSTITUTE OF TECHNOLOGY

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## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Name : **RATHNAVEL P**

Designation : ASSISTANT PROFESSOR

Email : rathnavel.eee@sairamit.edu.in

Qualification : B.E., M.E.,( Ph.D)

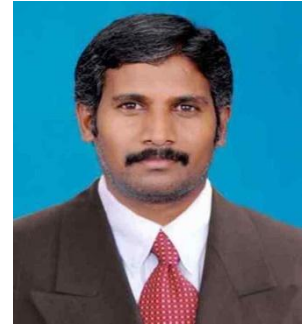
Specialization : Power Electronics and Drives

Research Interest : Power Electronics, Renewable Energy

Experience in years : **Teaching** UG  PG  **Industry**

No. of Workshop/Conferences/  
FDP attended : Workshop  Conferences  FDP

No. of Workshop/Conferences/  
FDP Organized : Workshop  Conferences  FDP



Professional Membership	IEEE – 93507356 ISTE – LM18069 IAENG - 190458 AICTSD - 50694
Publications	National: JOURNAL-0, CONFERENCE-5
	International: JOURNAL 15-,CONFERENCE- 4
	Books – 0
Research Funded Projects	-
Patents	Published – 1

Achievements	100% RESULT IN 1. SOLID STATE DRIVES 2. BASIC ELECTRICAL AND ELECTRONICS ENGINEERING 3. ELECTRICAL ENGINEERING AND INSTRUMENT 4. MEASUREMENT & INSTRUMENTATION 5. POWER PLANT ENGINEERING 6. ELECTRICAL ENERGY GENERATION, UTILIZATION AND CONSERVATION 7. POWER ELECTRONICS
Any Other Information	1. Department Admission Coordinator 2. Renewable Energy Systems lab Incharge 3. Internship and Industrial Visit Coordinator 4. College Level YRC Program officer 5. Class Committee Chairman, Class Coordinator, etc.

## List of Publications:-

### Journals

#### Papers published in International Journals:

1. M Jagadeesh Kumar, T Muthamizhan, **P Rathnavel**, G Ezhilarasan “Performance and Analysis of Voltage Compensation in Transmission Line Using SMES-Based IDVR”, Proceedings of International Conference on Power Electronics and Renewable Energy Systems, pp 613–623
2. T. Muthamizhan; M.Jagadeesh Kumar; **P. Rathnavel**; Md. Aijaz “ A Photovoltaic fed High Gain Bidirectional DC/DC Converter on EV Charging stations Applications” 2021 2nd Global Conference for Advancement in Technology (GCAT), DOI: 10.1109/GCAT52182.2021.9587699.
3. P Rayavel, A Sivakumar, P V Gopirajan, S Surenderanath, **P Rathnavel** “Real time Machine Learning Approach for a Smart Door Unlocking Using Face recognition System”IOP Conference Series: Materials Science and Engineering 1130 (2021) 012080 IOP Publishing doi:10.1088/1757-899X/1130/1/012080
4. Baldwin Immanuel T, **Rathnavel P**, “PV Powered Standardised Irrigation System Using Soil Moisture Sensor”, 2020 6th International Conference on Advanced Computing & Communication Systems (ICACCS) 978-1-7281-5197-7/20/\$31.00 ©2020 IEEE.
5. Baldwin Immanuel T, **Rathnavel P**, M.Rajavelan, “PV Fed Seven-Level Inverter using Fuzzy Control Technique”, International Journal of Engineering and Advanced

Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-2, December 2019

6. **Rathnavel P**, Baldwin Immanuel T, Rayavel P, “Road Tyre Friction Used to Generation of Electrification”, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-9, Issue-2, December 2019
7. **Rathnavel P**, Baldwin Immanuel T, Rayavel P, “Energy saving light monitoring and control architecture using Arduino”, International Journal of Innovative Technology and Exploring Engineering, 2019.
8. **Rathnavel P**, Baldwin Immanuel T, Rayavel P, “Energy efficient light monitoring and control architecture using embedded system International Journal of Recent Technology and Engineering, 2019.
9. Rayavel P, **Rathnavel P**, Bharathi M, Siva Kumar T, “Dynamic Traffic Control System Using Edge Detection Algorithm”, ICSNS 2018 - Proceedings of IEEE International Conference on Soft-Computing and Network Security, 2018
10. Rayavel P, Surenderanath S, **Rathnavel P**, Prakash G, “ Emergency automatic signalling system using time scheduling”, Journal of Physics: Conference Series , Vol.1000 pp.1-7 (SJR Rating: 0.24, SCOPUS-H Index-59),2018
11. Surenderanath S, **Rathnavel P**, Prakash G, “ Simultaneous DC and three phase output using hybrid converter”, Journal of Physics: Conference Series , Vol.1000 pp.1-7 (SJR Rating: 0.24, SCOPUS-H Index-59),2018
12. **P. Rathnavel**, S. Surenderanath, S. Saravanan, ”An Interleaved High-Power Flyback Inverter for Standalone Application Using MPPT Algorithm”, Journal of Advance Research in Dynamical & Control Systems, 11-Special Issue, November 2017, pp 628 – 637.
13. G.Prakash, K.Dhineshkumar, **P.Rathnavel** ,” *Design and Simulation of Synchronous Buck Converter for Permanent Magnet Generator in Low Power Applications* ”, International Journal of Engineering Management and Research , Vol.5(5) pp.280-285, 2015.
14. **P.Rathnavel**, Baldwin Immanuel, G.Prakash,” *Road Tyre Friction Electrical Potential Utilization in Electrical Potential* ”, International Journal of Engineering Management and Research , Vol.5(5) pp.246-251, 2015
15. C.Banusri, **P.Rathnavel**, G. Ezhilarasi, “Simultaneous DC And Three Phase AC Output Using Hybrid Converter” International Journal of Applied Engineering Research Vol 10, AUG 2015, Page No. 300 – 303.

### **Books Published:**

NIL

## Conferences

### Papers published in International Conferences:

1. Presented a Paper Titled “Performance Analysis of Single Stage Inverter Employing Fuzzy Controller” **International Conference** on Sustainable Innovation in Science & Technology in G H Rasoni University, Saikheda, MP on 26<sup>th</sup> & 27<sup>th</sup> February 2021.
2. Presented a Paper Titled “Charging / Discharging in Dual Battery Bank Using Renewable Energy” **International Conference** on Innovation and Research in Marine Electrical and Electronics Engineering, AMET University on 17<sup>th</sup> & 18<sup>th</sup> June 2021.
3. Presented a Paper Titled ” An Interleaved High Power Flyback Inverter for Standalone Application Using MMPT Algorithm” **International Conference** on Innovation and Research in Marine Electrical and Electronics Engineering ICIRMEEE 2017 in AMET University, Chennai on 6<sup>th</sup> October 2017.
4. Presented a Paper Titled ” Simultaneous DC and three phase AC output using hybrid converter” **International Conference** on Computing and Information Technology in Sri Sai Ram Institute of Technology on 13<sup>th</sup> & 14<sup>th</sup> August 2015.

### Papers published in National Conferences:

1. Presented a Paper Titled, “SMART SOLAR-WIND ENERGY SYSTEM IN FARMING WITH OFF-GRID MODE BY IOT CONTROL”, 3rd **National Conference** on Innovative Solutions in Electrical Engineering Science (NCISEES’21), 21st April 2021.
2. Presented a Paper Titled ”Automatic Detection of Potholes In Roads” **National conference** on Recent Advances In On–Board Ship Automation (RAOBSA-2019) in AMET University on 26<sup>th</sup> and 27<sup>th</sup> September 2019.
3. Presented a Paper Titled “ Cascaded Invertor Based Multilevel STATCOM” in the **National conference** on Innovative Strategies in Green & Soft Computing for Renewable Energies- ISGSCRE’17 Sona college of technology, on 31<sup>st</sup> March 2017.
4. Presented a Paper Titled ”ANFIS Based SEPIC converter for Renewable Energy System with MPPT Algorithm” **National Conference** on Innovative Techniques in Power Engineering and Drives ITPED’16 on 20<sup>th</sup> April 2016 at Velammal Engineering College.
5. AUTOMATED CHARGING/DISCHARGING IN DUAL BATTERY BANK USING RENEWABLE ENERGY RESOURCE

## List of Patent :

PRATHNAVEL, "INTELLIGENT CONNECTIVITY DRIVING USING VEHICULAR AD HOC NETWORKS FOR FUTURE TRANSPORTATION"  
Application No. 202111004715 A

## Workshop / Conferences / FDP Attended:-

1. Attended Six days **FDP** on "Control Engineering in Electric Vehicles" at SRM TRP Engineering College, Tiruchirappalli, on 7<sup>th</sup> & 12<sup>th</sup> February 2022.
2. Attended 10 days **FDP** on "APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN DIGITAL MANUFACTURING" at Sri Sai Ram Engineering College, Chennai, Tamilnadu, India association with NIT-Warangal from 21.02.2022 to 03.03.2022.
3. Attended One Week **FDP** on "Integration of Renewable Energy with Smart Grid for Electric Vehicle" in AMET University, from 06<sup>th</sup> December to 11<sup>th</sup> December 2021.
4. Attended **ATAL FDP** on "Edge computing technologies for Smart Factory Automation and Industry 4.0" from 16/08/2021 to 20/08/2021 at Kongu Engineering College.
5. Attended **ATAL FDP** on "Electric Vehicles" from 08/02/2021 to 12/02/2021 at KPR Institute of Engineering and Technology.
6. Attended **ATAL FDP** on "Artificial Intelligence" from 31/08/2020 to 04/09/2020 at Sri Krishna College of Engineering and Technology.
7. Attended **ATAL FDP** on "Internet of Things (IoT)" from 05/10/2020 to 09/10/2020 at Government College of Engineering and Research Awasari.
8. Attended AICTE Six days **FDP** on "Recent Advancements in High Voltage Engineering" from 03/03/2021 to 09/03/2021 at SRM Valliammai Engineering College.
9. Two days **FDP** on "MATLAB & SIMULINK APPLICATIONS" at HINDUSTAN INSTITUTE OF TECHNOLOGY AND SCIENCE, on 4<sup>th</sup> & 5<sup>th</sup> July 2019.
10. Two weeks **FDTP** on "EE8402-Transmission and Distribution" in Sri Sai Ram Engineering College, on 3<sup>rd</sup> to 15<sup>th</sup> December 2018.
11. Two days **FDP** on "RECENT TRENDS ON RENEWABLE ENERGY & POWER ELECTRONICS USING MATLAB" in association with Pantech ProEd Pvt .Ltd at AMET University, on 15<sup>th</sup> & 16<sup>th</sup> September 2017.
12. Seven Days **FDTP** on " PROTECTION AND SWITCHGEAR" in G.K.M College of Engineering and Technology, on 22<sup>nd</sup> to 29<sup>th</sup> May 2017.
13. Seven Days **FDTP** on "HIGH VOLTAGE ENGINEERING" in St.Joseph's Institute of Technology, on 1<sup>st</sup> June to 8<sup>th</sup> June 2016.
14. Two Days **FDP** on "Electromagnetic Field Theory & Transmission Lines" in Sri Sai Ram Institute of Technology, on 25<sup>th</sup> & 26<sup>th</sup> June 2015.
15. One Week **FDP** on "Challenges And Opportunities In Indian Power Scenario" in

- GCE, Bargur, on 26<sup>th</sup> May to 1<sup>st</sup> June 2014.
16. Seven Days **FDTP** on "Power System Analysis" in Valliammai Engineering College on 9<sup>th</sup> To 16<sup>th</sup> Dec 2013.
  17. Attended three days online **workshop** on “ Design of Experiments: An Engineering Perspective” organized by Journal of advanced engineering research & Powered by hexacube India, on 25<sup>th</sup> , 26<sup>th</sup> and 27<sup>th</sup> April 2020.
  18. Attended one day **workshop** on “Short Circuit and Arcflash Safety and Reliability for Ship Power System” in AMET UNIVERSITY on 01<sup>st</sup> November 2019.
  19. Attended one day **seminar** for YRC program officer in Jeppiaar Institute of Technology on 24<sup>th</sup> January 2019.
  20. Attended Audit **Training** on " Internal Auditor ISO 9001:2015 " in Sri Sai Ram Institute of Technology On 23rd April 2018.
  21. Attended One Days **Training** on "Disaster Management" conducted by YRC in Sri Sai Ram Institute of Technology on 14th July 2017.
  22. Attended Two Days **Workshop** on "Integrated Electrical & Electronics Circuits Training using LabVIEW" in VIT UNIVERSITY on 28th & 29th April 2017
  23. Attended National **Workshop** on "Effective Writing Of Engineering Journal Paper And Thesis" in SRM University on 16th & 17th March 2017
  24. Attended Three Days **Workshop** on "TRAINING ON SOLAR PV SYSTEM DESIGN" in HINDUSTAN UNIVERSITY on 22nd to 24th June 2015
  25. Attended National Level **Seminar** on " Enegy Storage Techniques for Renewable Energy System” in Sona College of Technology, Salam, on 16<sup>th</sup> September 2015.
  26. Attended National Level **Seminar** on "Research Challenges In Micro Grid" In VIT, Chennai 9th May 2015.
  27. Attended One Day **Workshop** on "Recent Trends In Renewable Enrgy" in Sri Sai Ram Institute of Technology 31st March 2015
  28. Attended National Level **Seminar** on " Power Quality Issues Problems & Solutions" in Shree Motilal Kanhaiyalal Fomra Institute Of Technology On 21<sup>st</sup> December 2012.
  29. Attended Audit **Training** on " Internal Auditor ISO 9001:2008 " in Sri Sai Ram Institute of Technology On 11th December 2012.

### **Workshop / Conferences / FDP Organized:-**

#### **Conference / Symposium (National)**

1. Organizing Secretary, one day National level technical symposium “WARROS’13”, in Sri Sai Ram Institute of Technology, Chennai 600 044, on 17th August, 2013.
2. Organizing Secretary, 1<sup>st</sup> National Conference on” Innovative Solutions in Electrical Engineering Science (NCISEES’16)” in Sri Sai Ram Institute of Technology, Chennai 600 044, on 4th April 2016.
3. Organizing Coordinator, one day National Level Techfest “WARROS’21”, in Sri Sai Ram Institute of Technology, Chennai 600 044, on 2nd November, 2021.

### **Seminar/Guest Lecture/Workshop**

1. Organized **Guest Lecture** on "Industry Institute Knowledge Transfer Series (Electro Plates and G H Induction Pvt. Ltd, Thirumudivakkam ", in Sri Sai Ram Institute of Technology, Chennai 600 044, on 25<sup>th</sup> March 2022.
2. Organized **Guest Lecture** on "International Higher Education", in Sri Sai Ram Institute of Technology, Chennai 600 044, on 12<sup>th</sup> January 2022.
3. Organized **Workshop** on “Recent Trends in Power Electronics Applications” in Sri Sai Ram Institute of Technology, Chennai 600 044, on 16<sup>th</sup> December 2021.
4. Organized one days **Guest Lecture** on “REAL-TIME APPLICATIONS IN EMBEDDED SYSTEM” in Sri Sai Ram Institute of Technology, Chennai 600 044, on 11<sup>th</sup> December 2020.
5. Organized five days **Workshop** on “ORCAD-PSPICE AND EMBEDDED SYSTEM-PLC” in Sri Sai Ram Institute of Technology, Chennai 600 044, on 19.02.18 to 23.02.18.

### **Special Lectures Delivered**

1. A Lecture on the topic "Industry Institute Knowledge Transfer Series (G H Induction Pvt. Ltd, Thirumudivakkam)", in Sri Sai Ram Institute of Technology, Chennai 600 044, on 25<sup>th</sup> March 2022.
2. Presented the Expert Lecture in the FDP on”EE8005 Modern Power Converter” in SRM Valliammai Engineering College, Chennai 603 203, on 25<sup>th</sup> November 2020.

### **NITTT/NPTEL**

1. Course Completed in NITTT Module 4 for the subject of Instructional Planning and Delivery.
2. Course Completed in NPTEL for the subject of Stress Management
3. Course Completed in NPTEL for the subject of Advance power electronics and Control