

KINGS COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Name:Mr.R.Sundaramoorthi	
Designation:	Head of the Department
Qualification:	B.E.,M.E.,(Ph.D)
Area of specialization:	Power Electronics, Control systems, Electrical drives, Hybrid Energy Technology
Experience:	Teaching: 19.3 Yrs.
	Industry: -NIL
No. of workshop / Conferences / FDP attended :	3 /11 / 22
Publication :	Journal National: - NIL International: 07
	Conference National: 3 International: 9
Membership :	ISTE,IAENG

PAPERS PUBLISHED:

JOURNALS DETAILS:

1. **Sundaramoorthi, R & Chitraselvi, S 2024 "Integration of Renewable Resources in Electric Vehicle Charging Management Systems Using Deep Learning for Monitoring and Optimization"**, Iranian Journal of Science and Technology, Transactions of Electrical Engineering, **SPRINGER NATURE** <https://doi.org/10.1007/s40998-024-00767-1>, Volume 49, pages:313-335(2025) Impact Factor: 1.5. **(Citation:01)**

2. **R. Sundaramoorthi, "Implementation of Electric vehicle for Agricultural Purpose"** International Journal of Advances in Engineering and Management (IJAEM), Volume 3, Issue 4, April 2021, pp-473-479.

3. **R. Sundaramoorthi, R. Karthikeyan, R. Rajadurai, P. Ramkumar "Design and Analysis of Dual Inductor High Step-up DC -DC Converter based on Cock-croft-Walton Multiplier for Renewable Energy Applications"** International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST), Volume 5, Issue 3, March 2019, pp-37-41.

4. **K. Pradeepsagarraaj, R. Sundaramoorthi "Implementation and Control of Multiple Input Single Battery Charger for DC Nano Grid Applications"** International Journal of Advanced Research and Technology (IJARBEST) Volume 3, Special Issue 20, December 2016.

5. **R. Divya, R. Sundaramoorthi "A new pulse duty cycle control method with pulse frequency Modulation for Light load Applications"** International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Volume 3, Issue 3, March 2014.

6. **K. Ramya, R. Sundaramoorthi " Bidirectional power flow control using CLLC Resonant converter for DC distribution system"** in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Volume 3, Issue 4, 8716-8725. **(Citation:03)**

7. **R. Sundaramoorthi, S. R. Karthikeyan, J. Arokiaaraj "Analysis of Power Factor Correction through Wide Input Wide Output DC-DC Converter with Tapped Inductor"** CiiT, Volume 4, No 8, 2012.

CONFERENCES:(INTERNATIONAL/NATIONAL)

1. Presented paper titled **"Wireless control of a rectifier based PMDC Motor drive using FPGA control"** in International Conference on Engineering Trends and Science & Humanities (ICETSH-2015) ISSN: 2348 – 8379, PP(22-28)

2. Presented paper titled **" FPGA based PWM techniques with reduced harmonic distortion for VSI"** in international convention cum pre-conference workshop on innovations in engineering and technology for sustainable development. (IETSD-2012) 3-5 September 2012-volume 2, (Pages:EE-113-EE-121).

3. **R. Nithya, R. Sundaramoorthi "Design and Implementation of SEPIC converter with low ripple battery current for electric vehicle applications"** 2016 International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS). **(Citation:08)**

4. Presented paper titled **"Investigations on Hybrid Electric Vehicle using Ultra capacitor and Digital Controller"** in Research Support Conclave on RSC 2020 organized by Coimbatore Institute of Technology, Coimbatore during 08 to 10, January, 2020.
5. Presented paper titled **"A simulation study of Electric drive performance using Ultra capacitor and digital controller for battery operated vehicle systems"** at International Conference on ICSTEM'18 organized by Kalaingar Karunanithi Institute of Technology, Coimbatore during 23.3.18-24.3.18.
6. Presented paper titled **"Battery Management Systems Using Ultra Capacitor for Electric Vehicles and Energy Storage Applications"** in International e-conference on challenges and opportunities in renewable energy, smart systems and e-mobility (ICCORSE- 2020) "30.7.2020&31.7.2020.
7. Presented paper titled **"Study of Battery Electric vehicle performance using Ultra Capacitor and Digital Controller"** in International conference on Power Initiatives (ICPI-2020).
8. Presented paper in International E-Conference on Advanced Electrical drives ICAEVD-2022 titled **"SOC and SOH Estimation based on Adaptive systems for Electric Vehicle Applications"** organized by Navodaya Institute of technology at 11th and 12th April 2022
9. Presented paper in International Conference Emerging Trends in Electric Vehicles and Smart Technologies (ICETEVST-22) titled **"Overvoltage Protection and Harmonic Reduction for Electric vehicle Application"** organized by TRP Engineering College.
10. Presented paper on **"Artificial Intelligence Enabled Accident finding and observant System Using IoT and Deep Learning for Metropolitan Cities"** at National conference NCRGT 2024, organized by St. Mother Theresa Engineering College.
11. Presented paper on **"AI based Battery Management solutions for EV applications"** at International National conference Arasu Engineering College.

Membership in Professional Societies:

1.MISTE 2.IEEE 3.ISOE

AWARDS RECEIVED:

- ❖ Received Best teacher Award for the academic year 2023-24 during Annual day celebrations organized by Kings College of Engineering.
- ❖ Received financial assistance Rs.20,000 for organizing Impact Lecture series, sponsored by MoE, Institutions Innovation Council(IIC)-financial year 2023-24
- ❖ Received financial assistance Rs.12,000 for organizing Impact Lecture series, sponsored by MoE, Institutions' Innovation Council(IIC)- financial year 2021-22
- ❖ Received cash awards and certificates for centum results in university Examination.
- ❖ Received financial assistance Rs.7500 from TNSCST for students Project Scheme as Project Assistant Coordinator.

- ❖ Received financial assistance Rs.8000 from IEEE Students Project Scheme as Project Coordinator.
- ❖ Received Grant Rs.50,000 from Ministry of New and Renewable Energy(MNRE)Govt of India, to organize National level Conference at Kings College of Engineering.
- ❖ Received gold medal and academic excellence merit certificate during post Graduation.

TRAINING PROGRAMMES / SEMINARS / CONFERENCES ATTENDED:

1. Attended Winter course on “control systems “at RVS College of Engineering, Dindigul, from 5.12.2006 to 17.12.2006
2. Attended seminar titled”Teachers as a counsellor “at Adaikala matha arts and Science College from 20.11.2006 to 23.11.2006.
3. Attended FDP on “Soft techniques for measurement and automation” Noorul Islam College of Engineering from 5.12.2007 to 17.12.2007.
4. Participated FDP on “Embedded applications in power electronics”at Arulmigu Kalasalingam College of Engineering from 26.5.2008 to 31.5.2008.
5. Participated National workshop on Power electronics NIT, Trichy from12.11.2008 to 14.11.2008
6. Attended Course on “Intelligent systems and control” SSN College of Engineering - 18.12.2008 to 20.12.2008
7. Attended Course on Decision making in a fuzzy Environment NIT-Calicut-1.6.2009 to 5.6.2009
8. Attended two days Training Programme on “DRDO Sponsored Modern power simulation tools” Saranathan College of Engineering- 24.10.2010 to 25.10.2010
9. Attended Advanced control techniques in power electronics M.A.M College of Engineering- 16.5.2011 to 27.5.2011.
10. Participated Course on High Impact teaching skills (Mission10x) SASTRA University -6.6.2011 to 10.6.2011
11. Participated National seminar on “Research methodologies and issues in Electrical Engineering “at P.S.R.Engineering college- 8.6.2012 and 9.6.2012.
12. Participated Innovations in Engineering and Technology for Sustainable Development Bannari Amman Institute of Technology, Erode- 3.9.12 to 5.9.12
13. Participated TEQIP II Sponsored Faculty Development Programme on” Embedded Controllers for Power Converter Applications” Alagappa Chettiar College of Engineering and Technology,Karaikudi -22.5.13to 28.5.13.

14. Participated TEQIP II Sponsored Two day's hands on Training on "Power Electronics, System and Renewable Energy-Design Modeling and Simulation using PSIM Coimbatore Institute of Technology, Coimbatore jointly organized with Trident Tech labs Private Limited, Chennai- 9.8.2013 to 10.8.2013.
15. Attended Two days Workshop and Hands on Training on "Control Systems-Real time applications" AMACE IEEE Student Branch, IEEE India Council at Arulmigu Meenakshi Amman College of Engineering, adamavandal(Near Kancheepuram) – 21.11.2014 and 22.11.2014.
16. Attended Faculty Development Programme on "Embedded Systems-For a Connected Tomorrow" SASTRA University, Thanjavur- 14.11.16 to 19.11.16
17. Attended National level workshop on "Art of Writing and Publishing Effective Research Paper in Journals and Conferences" Kongu Engineering College on 07.10.2017
18. Attended Advanced process control and instrumentation system National Institute of Technical Teachers Training and Research Kolkata- 7.1.2019 to 11.1.2019.
19. Attended NBA Accreditation National Institute of Technical Teachers Training and Research Kolkata -22.4.2019 to 26.4.2019.
20. Attended FDP on "Energy Storage and its Applications" Jawaharlal Nehru College of Engineering- 5.10.2020 to 10.10.2020.
21. Attended Workshop on Electric Vehicles CIT, Coimbatore 5.12.2020& 6.12.2020.
22. Attended Online Training Programme on "Solar, Wind & Bio Energy Applications NITTR Chennai- 4.1.2021 -8.1.2021.
23. Attended National Webinar on "Renewable Energy Smart Micro grid" Mandsaur University, Madhya Pradesh on15.5.2021.
24. Attended National level online seminar on "Electrical vehicle technology 2025: Research and career development" on 23.2.2024 conducted by DIGI Skills center, A.C.T Academy, Kerala.
25. Attended AICTE Margadarshan FDP on Trends and challenges in EV train Design and control 19.6.23-23.6.23 at NIT Trichy.
26. Participated two days I&E Exposure visit cum training program under Mentor Mentee Program conducted on 20.8.2024&21.8.2024.

GUEST LECTURE DELIVERED:

- ❖ Delivered lecture on **"Control theory and its applications in Electrical Engineering"** at **Mahath Amma Institute of Engineering and technology, Pudukkottai.(as External Resource Person -Guest lecture)**
- ❖ Delivered lecture on **"Wind Energy technology "**organized by ISTE Staff chapter, Kings College of Engineering.
- ❖ Delivered lecture on **"Strategies for Effective teaching and learning"** organized by IQAC, Kings College of Engineering.
- ❖ Delivered lecture on **" Optimization techniques-classical and advanced techniques-review"** organized by ISTE Staff chapter(TN 205), Kings College of Engineering.
- ❖ Delivered lecture on **"Goal settings and career guidance for first year students"** organized by Kings College of Engineering.
- ❖ Delivered lecture on **"Controller and its application in Electrical Engineering"** Organized by Department of EEE, Kings College of Engineering.
- ❖ Delivered lecture on **"Software simulation tools for Electrical Engineering"** Organized by Department of EEE, technical seminar, Kings College of Engineering.
- ❖ Delivered lecture on **"Battery Management Systems"** Organized by Department of EEE, technical seminar, Kings College of Engineering.
- ❖ Delivered lecture on **"Hybrid Electric Vehicles-overview"** Organized by Department of EEE, technical seminar, Kings College of Engineering
- ❖ Delivered lecture on **"Battery Management Systems in Electric and Hybrid Vehicles-Research Perspective"** Organized by Department of EEE, technical seminar, Kings College of Engineering

INDUSTRIALVISITS/CONSULTANCY/R&D PROJECTS

- ❖ Submitted Proposals to organize National Conference, Faculty Development Programme from various Funding Agencies(MNRE,CSIR,DST,DIT,AICTE etc)
- ❖ Visited factory ISRO, CPRI, NLC, Kothari Sugar factory,230/110 KV Substation, SAIL STEPUP Control during 2018-22.
- ❖ Conducted consultancy projects at Kings chemical India corporation ltd(Mannargudi)
- ❖ Prepared proposal for **MODROBS** and Faculty Development Programme through AICTE Scheme.

SHORT TERM COURSES / SEMINARS / FDP / WORKSHOP / CONFERENCE ORGANIZED:

S.No	Title of the event	Organized by	Date	
			From	To
1.	National level Technical Symposium-ENIGMA'2008	Department of EEE Kings College of Engineering	16.9.2008	
2.	NACOFEE'2012	Department of EEE Kings College of Engineering	22.3.2012	
4.	National Conference on Energy conservation and control in Electrical Engineering Applications(NCEC'15)	Department of EEE Kings College of Engineering	12.3.2015	
5.	National level Technical Symposium-ENIGMA'2015	Department of EEE Kings College of Engineering	19.5.2015	
6.	One day workshop on Embedded Controllers in Internet of Things	Department of EEE Kings College of Engineering	15.2.2018	
7.	One day workshop on "Intelligent Devices Applications in Electrical Engineering"	Department of EEE Kings College of Engineering	31.8.2018	
8.	Two days FDP on "Research Issues and solution in sustainable Energy Conversion and Renewable Energy sources"	Department of EEE Kings College of Engineering	1.11.2019&2.11.2019	
9.	Recent Trends in Electrical Engineering	Department of EEE Kings College of Engineering	15.2.2019	
10.	One day workshop on Advanced Industrial Robotics and Automation	Department of EEE Kings College of Engineering	22.2.2019	
11.	"Emerging Trends in Computing, control and Communication Technology (ETCCCT'20)" Jointly organized by Department of CSE,ECE&EEE	Department of EEE Kings College of Engineering	13.3.2020	
12	National level Technical Symposium-ENIGMA'2022	Department of EEE Kings College of Engineering	17.08.2022	

ADMINISTRATIVE POST HELD:

- Head of the Department(From March 2024-till date)
- Institutions Innovation Council -Vice President(From 2018 to till date)
- Department Academic Coordinator (From 2019 to February 2024)
- Course Plan Co-ordinator at Institution level.(From 2016 to 2019)
- NAAC and ISO Coordinator.
- Deputy Controller of Examinations as Institution level.

PROFESSIONAL EXPERIENCE:

Total teaching experience: 19 years 3 months (BE classes)

Taught the subjects related to BE (Electrical Engineering)

1.Control systems.2.Modern control systems 3.Biomedical instrumentation 4.Power quality 5.Measurements and instrumentation 6.Electro magnetic theory.7.Solid state drives 8.Neural network and fuzzy logic control.9.Basic Electrical and Electronics Engineering.10.Electrical drives and controls11.Power electronics12.Hybrid energy Technology.

Handling the subjects related to ME (Power Electronics& Drives)

1.Analysis of Power converter 2. Power Electronics for Renewable Energy Systems 3. Power Quality4. Solid state drives.5.Systems theory6.Electric Vehicles and Power Management.