

Faculty Profile



Dr. S. Rajalingam , M.E., Ph.D.,
Associate Professor – EEE

HIGHLIGHTS:

- Number of Journal Publications:20
- H-Index:9
- i10 index: 9
- Project Funding Received: -
- Patents Published:11
- Patents Granted:2

PROFESSIONAL LINKS:

- Scopus ID: 57885491000
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57885491000>
- Google Scholar
ID: https://scholar.google.com/citations?hl=en&authuser=2&user=f2_ack4AAAAJ
- Anna University Faculty ID: 2614381985
- AICTE Faculty ID:1-32209694041
- Anna University Supervisor ID: -
- LinkedIn: <https://www.linkedin.com/in/rajalingam-sakthivelsamy-a2533494>

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 16 years
- Industrial Experience: -

INTERNATIONAL EXPOSURE:

- Worked as Senior Lecturer and HOD in the Department of EEE, Sunyani Technical University, Ghana-West Africa.

AREA OF SPECIALIZATION:

- Power Electronics and Drives
- Energy Management
- Electric Vehicles
- Renewable energy

SPONSORED RESEARCH / FUNDING APPLIED / CONSULTANCY:

Funding Agency	Title	Cost	Year/ Status
ISRO	Field Oriented Control (FOC) based BLDC/Stepper Motor Drive Electronics	12,83,760	2024 Applied
DST-TIDE	"Smart Eyeglass for visually impaired persons"	7,57,500	2023 Applied
SERB SURE	Design and Development of dual hybrid Electric Vehicle with Energy management strategies for personal and commercial applications	10,32,000 INR	2022 Applied
Ghana National Gas Company Limited	Center for EV Technologies	500,000 GHC	2021 Applied
SIFA-Skills Initiative for Africa	Skill development approaches for smart farming and sustainable agriculture.	3,000,000 Euros	2019 Applied
SDF- Skills development Fund	Smart crop monitoring and farm management system for sustainable agriculture	500,000 GHC	2019 Applied
Advanced Research and Development, K.L.N. College of Engineering.	IoT Based Security and Energy Management System in Buildings	25,000 INR	2018 Won
AICTE – Research Promotion Scheme	IoT Based Energy efficient green building	1,075,000 INR	2017 Applied

PATENTS PUBLISHED/GRANTED:

- Patent titled “ SYSTEM FOR SMART GARBAGE BIN FOR POWER GENERATION” published on 24/03/2023

- Patent titled “ SYSTEM FOR SOLAR-POWERED SMART WHEELCHAIR” published on 31/03/2023
- Patent titled “ A SYSTEM TO DETECT HUMAN MOTION IN SURVEILLANCE VIDEOS” published on 29/09/2023
- Patent titled “ INTELLIGENT EXTENSION BOARD WITH MULTIPLE HARVESTERS” published on 06/10/2023
- Patent titled “ HYBRID MULTI ENERGY HARVESTING SYSTEM” published on 06/10/2023
- Patent titled “ VERTICAL FACADE SOLAR PANEL INSTALLATION APPARATUS FOR HIGH-RISE STRUCTURES” granted on 03/10/2023
- Patent titled “ SMART EYE GLASS FOR VISUALLY IMPAIRED PEOPLE” published on 01/03/2024
- Patent titled “ ARTIFICIAL INTELLIGENCE BASED BRAIN TUMOR DETECTION DEVICE” granted on 21/02/2024
- Patent titled “ WIRELESS POWER TRANSFER SYSTEM FOR ELECTRIC VEHICLES WITH DYNAMIC CHARGING” published on 28/03/2025
- Patent titled “ REAL-TIME ENERGY HARVESTING AND STORAGE SYSTEM FOR WEARABLE APPLICATIONS” published on 28/02/2025
- Patent titled “ WIRELESS INDUCTIVE CHARGING SYSTEM WITH INTELLIGENT CONTROL FOR ELECTRIC VEHICLES” published on 28/02/2025
- Patent titled “ENERGY EFFICIENT WATER PUMPING SYSTEM FOR SUSTAINABLE AGRICULTURE” published on 22/08/2025
- Patent titled “SMART ENERGY MANAGEMENT SYSTEM FOR BIDIRECTIONAL CHARGING IN ELECTRIC VEHICLES WITH GRID SYNCHRONIZATION CAPABILITY” published on 22/08/2025

PUBLICATIONS:

1. **S. Rajalingam** and S. Kanagamalliga, “Modelling and performance analysis of free body dynamics of electric vehicles,” International Journal of Power Electronics and Drive Systems, vol. 15, no. 1, March 2024, doi: <http://doi.org/10.11591/ijpeds.v15.i1.pp1-7>. (**Scopus indexed**)
2. **S. Rajalingam**, S. Kanagamalliga, G.Kamal, J.R. Gopala Krishnan and K.Sakthivel, “IoT Based Nano Device for Monitoring Induction Motor for Electric Vehicle Applications,” Nano World Journal, 9(S5): S101-S105.doi: <https://doi.org/10.17756/nwj.2023-s5-020>.
3. **S. Rajalingam**, S. Kanagamalliga, K. S. Priya, and N. Karuppiyah, “Optimizing Drone delivery: An efficient design for shipper applications,” Journal of Autonomous Intelligence, vol. 7, no. 1, Oct. 2023, doi: 10.32629/jai.v7i1.875. (**Scopus indexed**)
4. **S Rajalingam**, S Kanagamalliga, and M Pandi Maharajan, “Design, Development and packing of Lithium Ion Battery Pack for Electric Vehicles Section A-Research paper Design, Development and packing of Lithium Ion Battery Pack for Electric Vehicles,” Eur Chem. Bull, vol. 12, no. 4, pp. 10829–10839, 2023, doi: 10.48047/ecb/2023.12.si4.979.
5. S Kanagamalliga, **S Rajalingam**, Renugadevi, Gunapati Teja, Pothala Srikanth, and Bynagari Abraham Ron Clayton, “Anomalous Activity Recognition In Video Scenes Using Artificial Intelligence,” Eur Chem. Bull, vol. 12, no. 4, pp. 9552–9558, 2023, doi: 10.48047/ecb/2023.12.si4.857.
6. M. Pandi Maharajan, J. Barsana Banu, **S. Rajalingam**, P. Kannan, M. M. Vijay, and K. Malarkodi, “A Novel Method to Identify the Fault in Transmission Line Using Discrete Wavelet Transform (DWT),” Eur. Chem. Bull, vol. 12, no. 4, pp. 9585–9595, 2023, doi: 10.48047/ecb/2023.12.si4.860.

7. Renugadevi R, S Kanagamalliga, **S Rajalingam**, and Parimala V, “Design process and performance evaluation of Lithium ferro Phosphate battery for the application to transport sector,” 2023.
8. **Rajalingam S**, Karuppiah N, Muthubalaji S, Shanmugapriyan J. (2022) Power quality improvement in the distribution system by interconnecting PV using hybrid DSTATCOM. International Journal of Advanced Technology and Engineering Exploration. 9(88):310-325. ISSN:2394-5443, DOI:10.19101/IJATEE.2021.875154. (UGC Listed care/Scopus indexed)
9. Puoza, J. C., & **Rajalingam S. (2021)**. Ultrasonic Motors Structural Design and Tribological Performance-A Review. Tribology Online, 16(4), 286-298. ISSN:1881-2198, <https://doi.org/10.2474/trol.16.286> (UGC Listed care/ESCI)
10. **Rajalingam, S.**, Kanagamalliga, S., Karuppiah, N., & Puoza, J. C. (2021). Peer Interaction Teaching-Learning Approaches for Effective Engagement of Students in Virtual Classroom. Journal of Engineering Education Transformations, 34, 425-432. ISSN:2394-1707, DOI: 10.16920/jeet/2021/v34i0/157191 (Scopus indexed)
11. Samuel Jonas Yeboah, **Rajalingam S**, Matthew Tawiah, (2021). Design and development of RFID based Multi-User Smart Energy Distribution System at Sunyani Technical University, Ghana. Turkish Journal of Computer and Mathematics Education, 12(3), 4596-4603. ISSN:1309-4653, DOI: <https://doi.org/10.17762/turcomat.v12i3.1852>
12. Samuel Jonas Yeboah, Solomon Nunoo, **Rajalingam S, (2021)**. Gravitational Search Algorithm Based Automatic Load Frequency Control for Multi-Area Interconnected Power System. Turkish Journal of Computer and Mathematics Education, 12(3), 4548-4568. ISSN:1309-4653, DOI: <https://doi.org/10.17762/turcomat.v12i3.1845>
13. Adane godfred, **Rajalingam S**, Gyimah Kopri, (2020). Testing and analysis of biogas development using cow dung for rural areas in northern Ghana. Journal of Nuclear Engineering & Technology, 10(3), 38-44. ISSN: 2321-6514, DOI: <https://doi.org/10.37591/jonet.v10i3.4134>
14. Abitha, E., Gayathri, C., & **Rajalingam S. (2020)**. Non-conventional Energy Sources for Rural Electrification—a Review. Journal of Nuclear Engineering & Technology, 10(1), 8-14. ISSN: 2321-6514.
15. **Rajalingam, S.**, Haripreethy, R., Booma, M., & Gayathri, R. (2018). Intelligent pollutant tracking system in vehicles. Journal of Applied science and computations, vol 5 (6), pp.285-289. ISSN 1076-5131, DOI:16.10089.JASC.2018.V5I6.453459.14480. (UGC Listed care)
16. **Rajalingam, S. & Malathi, V. (2016)**. HEM algorithm based smart controller for home power management system. Energy and Buildings, vol 131 (1), pp.184-192. ISSN 0378-7788 <https://doi.org/10.1016/j.enbuild.2016.09.026> (SCIE/UGC Listed care/Scopus indexed)
17. Sakthideepa, N. & **Rajalingam, S. (2015)**. Compensation of Reactive power and Non-linear loads for Power Quality Improvement using DSTATCOM, International Journal of Applied Engineering Research, vol 10 (20), pp 19150-19154. ISSN 0973-4562. (UGC Listed care/Scopus indexed)
18. **Rajalingam, S.**, Malathi, V. (2015). Augmented Current Controller with SHC Technique for Grid Current Compensation in the Distribution System. In: Panigrahi, B., Suganthan, P., Das, S. (eds) Swarm, Evolutionary, and Memetic Computing. SEMCCO 2014. Lecture Notes in Computer Science, vol 8947. Springer, Cham. pp 328-338, ISSN: 0302-9743, https://doi.org/10.1007/978-3-319-20294-5_29 (UGC Listed care/Scopus indexed)
19. **Rajalingam, S. & Malathi, V. (2014)**. Simple Augmented Current controller with OHC Technique for grid current compensation in the Distribution system, International journal of Engineering and Technology, Vol 6(2), pp.789-795. ISSN 0975-4024, DOI:10.1007/978-3-319-20294-5_29. (Scopus indexed)
20. **Rajalingam, S. & Karelmarx, V. (2014)**. Modelling of Power Electronic controller using incremental conductance algorithm for solar cell based Distributed Generation, International Journal of Innovative Research in Science, Engineering and Technology, vol 3 (3), pp 485-491. ISSN 2347-6710.

COURSES CERTIFIED:

Professional Courses

S. No	Name of the course	Issuing authority	Duration
1.	Effective Engineering Teaching in Practice	IIT Madras. India. (NPTEL)	4 weeks (Jan-Feb 2026)
2.	Accreditation and Outcome based Learning	IIT Madras. India. (NPTEL)	8 weeks (Aug-Oct 2025)
3.	Outcome based pedagogic principles for effective teaching	IIT Kharagpur. India. (NPTEL)	4 weeks (Aug-Sep 2018)
4.	Introduction to Smart grid	IIT Roorkee, India. (NPTEL)	8 weeks (Aug-Sep 2018)

Online Certification Courses

S. No	Name of the course	Issuing authority	Duration
1.	Electric Vehicle Powertrain Engineering (Advanced)	DIYguru Education & Research, Bengaluru, Karnataka, India.	15 th August to 15 th October 2023 (2 months)
2.	AICTE Evaluated 2-week Patent Course	Turnip Innovations, Kolkata, India.	15 th August to 28 th August
3.	Online training on optoelectronic technology	Shenzhen Institute of Information Technology, China.	May 2021
4.	Masterclass on Electric Vehicle Design using MATLAB	Pantec Prolabs India Pvt Ltd, India	29 th Mar – 2 nd Apr 2021
5.	Online training on Machine Learning with Artificial Intelligence & IoT using AWS	Finland Labs in association with IIT Roorkee.	19 th Oct – 13 th Nov 2020
6.	Master class on MATLAB Simulink	Pantec Prolabs India Pvt Ltd, India	23 rd Nov – 22 nd Dec 2020
7.	Course on Electric and Hybrid vehicle Engineering	Haritha Techlogix, India.	3 rd -7 th Aug 2020
8.	FDP on “Electric Vehicles: Exploring inside the box”	MEA Engineering College, Kerala, India	8 th – 12 th June 2020

ACHIEVEMENTS AND AWARDS:

- BEE Certified Energy Manager.
- Received **Gold medal** for being first in B.E - Electrical and Electronics Engineering (EEE) at Kamaraj College of Engineering and Technology in the year 2008.
- **Certified “Sustainable Energy Audit Professional (SEAP)”** to undertake Energy audit in buildings certified by Energy commission and MIDA, 2020.

- **Certified Electrical Wiring Professional (CEWP)** to undertake electrical wiring and installations of Industrial facilities in Ghana-West Africa, Certified by Energy Commission, 2019.
- **Appreciation award** for establishing Texas Instruments Innovation Laboratory at K.L.N College of Engineering, Sivagangai in the year 2017.
- Received certificate of honor for serving as an **expert member** in Future Skills Camp 2020 in Internet of things, Russia.
- **Appreciation award** for organizing DrishTI online contest under Texas Instruments University Program in the year 2017.
- **Appreciation award** by Rotary Club of Puliangudi for scoring **200/200** in 12th Standard Physics, 2004.

SPECIAL SESSIONS DELIVERED:

- Served as the **Resource Person** for the Faculty Development Programme on the topic Linear Integrated circuits at K.L.N College of Engineering, Sivagangai on 23-06-2017.
- Delivered **Guest Lecture** at Faculty Development Programme on the topic Circuit theory at K.L.N College of Engineering, Sivagangai on 11-01-2016
- Delivered **Guest Lecture** at the Anna University approved Faculty Development Training Programme on Linear Integrated Circuits and applications at KLN College of Engineering, Pottapalayam on 16.06.15 and 19.06.15.
- Delivered **Guest Lecture** on Linear Integrated Circuits at K.L. Nagaswami Polytechnic College, Madurai on 02.03.15.
- Delivered a **Seminar** on Grid Management in power system at K.L.N. College of Engineering, Sivagangai.

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

1. Energy Literacy training (12 modules) by Swaraj Energy Foundations during July 2023.
2. Train the Trainer program on Powering IoT using Arduino/Raspeberry Pi at MIT Chennai from 19.09.22 to 23.09.22.
3. Industrial training at Dharani sugars and chemical limited, Vasudevanallur, Tirunelveli, Tamil Nadu, during 12th June to 14th June 2017.
4. Short term course on “Advances in solar energy technologies” at IIT Delhi, 09-15, December’2014.
5. Short term course on “Application of renewable energy sources” at IIT Delhi, 11-17, December’2013.
6. Workshop on “Realization of Control System Concepts using MATLAB and Simulink” at VIT University, Vellore, 13th September’2013.
7. Workshop on “Simulation and prototype model of power electronics circuits using PSPICE” at VIT University, Vellore, 20-21, September’2013.
8. Seminar on “MATLAB and Embedded systems applications in solar PV and wind energy systems” at PSG College of Technology, Coimbatore, 09-10, August’2013.
9. CSIR Sponsored workshop on “Smart Grids” at Anna University of Technology, Madurai, 27-28, July’2012.

10. Faculty development program on “Research Methods and Techniques” at K.L.N College of Engineering, 17th -19th March 2012.
11. MNRE Sponsored Seminar on “Soft energy technology for rural electrification” at Kongu Engineering College, Erode, 10-11, February’2011.
12. Workshop on “R&D project Proposals- Awareness, Needs and Benefits” organized by Anna University on 28th June 2013.

PROFESSIONAL MEMBERSHIPS:

S. No	Name of the Professional body	Membership Number	Year
1.	The Institution of Engineers (India) (IEI)	AM -149336-4	2013 to till date
2.	Institute of Electrical and Electronics Engineers (IEEE)	96931247	(2020 to 2024) 2027