# RESUME

## SANTHOSHKUMAR R.

1/3070 Maruthi Nagar (Extn.), Near Child Jesus Church, No.1. Tollgate, Trichy. Phone: 8667535189, 9600217996 Email: santhoshkumarajendran@gmail.com Scopus Id: 58245368700 ORCID Id: 0000-0003-1660-1567

## **Career Objective**

Highly motivated and dedicated professional seeking a challenging faculty position to leverage extensive knowledge, research expertise, and a strong passion for teaching. Committed to creating an innovative and engaging learning environment, guiding students in research, and staying updated with industry advancements. Eager to contribute to academic growth by delivering up-to-date, industry-relevant education.

#### **Academic Qualifications**

- 1. PhD Electric Vehicle (Pursuing)
  - Status: Provisionally Confirmed
  - Research Area: Electric Vehicle.

"To develop a new Emergency Solar-to-Electric Vehicle Battery Charger (EBC) that utilizes Model Free non-linear integral control techniques to optimize the charging process, with low efficiency and cost-effectiveness. The proposed system would provide the user with a seamless, cost-effective and secure EV charging experience, and would enable the user to connect and charge their EV from any location, at any time."

- Research Progress: Research paper is accepted in Journal of Electric Power Components and Systems (Taylor & francis).
- 2. M.E Power Systems and Engineering (2014-2016)
  - KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore
  - Affiliated to Anna University
  - $\blacktriangleright$  1<sup>st</sup> class with CGPA of 7.72.
  - Project Title: Single Phase Photovoltaic Quasi-Z-Source Inverter with Extended Switched Inductor to Reduce Double- Frequency Ripple.

"The aim is to address the power mismatch between the DC input and AC output in photovoltaic (PV) systems. The conventional approach involves using electrolytic capacitors with high capacitance to buffer the DFR energy. However, my research paper suggests a more efficient strategy that reduces the required capacitance without the need for extra hardware components. The proposed control strategy achieves low input voltage DFR and improves PV energy harvest in the ESL-qZS network."

- 3. B.E Electrical and Electronics Engineering (2009-2013)
  - KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore
  - > Affiliated to Anna University
  - $\blacktriangleright$  1<sup>st</sup> class with CGPA of 7.43

- 4. Higher Secondary Course(2009)
  - Vedhha Vikass Higher Secondary School, Salem
  - $\blacktriangleright$  1<sup>st</sup> class with 61.83%
- 5. High School(2007)
  - St. Thomas Higher Secondary School, Nilgris
  - $\blacktriangleright$  1<sup>st</sup> class with 73.09%

#### **Professional Experience**

- 1. Working as Assistant Professor in Sri Ramakrishna Engineering College, Coimbatore from 15<sup>th</sup> June 2022 to till date.
- 2. Worked as Assistant Professor in Dhanalakshmi Srinivasan Institute of Technology, Trichy from 8<sup>th</sup> June 2018 to till date.
- 3. Worked as Assistant Professor in KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore from 6<sup>th</sup> July 2016 to 27 July 2017.
- 4. Worked as Maintenance Engineer in GVS Engineering Works, Coimbatore from June 2013 to April 2014.

## **Professional Memberships**

- 1. Member Board of studies at KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore
- 2. Indian Society of Technical Education (ISTE)
- 3. Institute for Engineering Research & Publication (IFERP)
- 4. International Society for Research & Development (ISRD)
- 5. International Association of Engineers (IAENG)

## **Editorial Activities**

- 1. Review member in "International Journal of Engineering Research in Africa" (JERA)
- 2. Review member in "Advanced Engineering Forum" (AEF)
- 3. Review member in "International Journal of Research and Analytical Reviews" (IJRAR)
- 4. Review member in "International Journal of Electrical and Electronics Research" (IJEER)

## **Professional Event Management Experience**

- 1. Organized a one day National Level Workshop on "Clean Coal Technologies for Sustainable Power Generation" for Polytechnic students, engineering colleges undergraduate and postgraduate students on 25.02.2023
- 2. Acted as Organizing Committee Member in "7th International Conference on Engineering Research and Innovations (Virtual Conference)", and Organized by Terna engineering college, Navi Mumbai held on 22/09/2023 and 23/09/2023.

## **Research Funding and Patents**

1. Received a Design Patent for "A Non – Contact Hot Water Dispenser with Solar Panel" issued by Government of India, 20/08/2022.

## **Professional Certifications**

- 1. Successfully certified in the Linguaskill Test with a B1 grade.
- 2. Successfully certified in the 12-week NPTEL Online Course "Academic Writing", Examination held in February 2023.
- 3. Successfully certified in the 12-week NPTEL Online Course "Smart Grid: Basics to Advanced Technologies", Examination held in April 2023.

## **Journal Publications**

- [1] R. Santhoshkumar, Dr. S. Suresh, B. Sridhar, P. Deepa, P. Balaji and B. Dhinesh, "RFID MATERIAL Based Electric Vehicle Charging Station," in Applied Mechanics and Materials, vol. 912, pp. 45-53, Feb. 2023. ISBN: 9783036412375.
- [2] R. Santhoshkumar, M. Anusuya, N. Anand and G. Ezhilarasan, "Advanced Smart Power Socket Using IoT," in International Journal of Scientific & Engineering Research, vol. 9, no. 8, pp. 1179-1187, Dec. 2019. ISSN: 2229-5518.
- [3] R. Santhoshkumar, Dr.R.Lal Raja Singh and A.Afsal Shafeer, "Fault Analysis in Transmission Line Using Continuous Wavelet Transformation," in International Journal of Science and Innovative Engineering & Technology, vol. 1, no. 1, pp.331-338, May 2017. ISBN: 978-81-904760-9-6.
- [4] R. Santhoshkumar and M. P. Mohan Das, "Single Phase PV Quasi Z-Source Inverter with Extended Switched Inductor to Reduce Double Frequency Ripple," in International Journal of Applied Engineering Research, vol. 10, special issue 88, pp. 16-22, Dec. 2015.
- [5] R. Santhoshkumar, R. Arun and B. Loganathan, "Particle Swarm Optimization Based Harmonic Reduction in Multilevel Inverter," in International Journal of Innovative Research in Science, Engineering and Technology, vol. 4, no. 6, pp.1360-1369, May 2015. ISSN: 2319-8753.
- [6] R. Santhoshkumar and B. Loganathan, "Sensor-Based Rescue Robot for Catastrophe Management," in International Journal for Scientific Research and Development, vol. 3, no. 2, pp. 1746-1749, April 2015. ISSN: 2321-0613.

## **International Conference**

- [1] Presented a paper titled, "Generating Electricity by Non-Biodegradable Waste", in IEEE International conference on Data Communication Technologies and Applications in Graphic Era Hill University, Dehradun from 14/03/2023 to 16/03/2023.
- [2] Presented a paper titled, "Smart Helmet for Coal Mine Employees: Enhancing Safety and Efficiency", in IEEE International conference on Data Communication Technologies and Applications in Graphic Era Hill University, Dehradun from 14/03/2023 to 16/03/2023.
- [3] Presented a paper titled, "Implementation of Programmable Logic Controller for AC Coaches in Railways", in IEEE International conference on recent trends in Engineering Technology and Management in Christ the king engineering college, Coimbatore from 06/05/2022 to 07/05/2022.
- [4] Presented a paper titled on "A Transformerless Single-Phase Symmetrical Z-Source HERIC Inverter with Reduced Leakage Currents for PV Systems", in International conference on ICSTEM'19 In KIT-Kalaignarkarunanidhi institute of technology, Coimbatore from 22/03/2019 to 23/03/2019.

- [5] Presented a paper titled on "Voltage Permeance Review of Reconfigured Radial Power network", in International conference on ICRAET'19 In Sri Krishna College of engineering and technology, Coimbatore from 08/02/2019 to 09/02/2019.
- [6] Presented a paper titled on "Near state PWM Technique to reduce leakage current in Transformer less coupled inductor", in International conference on ICETECH'18 In Rathinam Institute of technology, Coimbatore from 30/08/2018 to 31/08/2018.
- [7] Presented a paper titled on "Fault Analysis in Transmission Line Using Continuous WALET Transformation", in International conference of contemporary engineering in Madha College of engineering, Chennai from 24/03/2017 to 25/03/2017.
- [8] Presented a paper titled on "Modified modulation with reduced capacitance using extended switched inductor quasi Z source inverter for double frequency suppression control", in IEEE sponsored International conference on Innovations in information, embedded and communication systems in Karpagam college of engineering, Coimbatore from 17/03/2016 to 18/03/2016.
- [9] Presented a paper titled on "Single phase PV quasi Z-source inverter with extended switched inductor to reduce double frequency ripple", in International conference on Alternate energy technologies in Government college of technology, Coimbatore from 25/11/2015 to 26/11/2015.
- [10]Presented a paper titled, "Control design of smart home using Lab VIEW" in International Conference on competency building strategies in business and technology for sustainable development in Sri Ganesh School of business management, Salem, on 20/02/2015.
- [11]Presented a paper titled, "Low cost robot for disaster management" in International Conference on intelligent computing methods, optimization and robotics in Dhanalakshmi Srinivasan engineering college, Perambalur, on 05/04/2013.
- [12]Presented a paper titled, "Particle Swarm Optimization Based Harmonic Reduction in Multilevel" in International Conference on MULTICON'15 in Muthayamal Engineering College, Namakkal on 29/04/2015 & 30/04/2015.

#### **National Conference**

[1] Presented a paper in the National level conference on the topic "Solar-Wind power generation and monitoring using Lab VIEW" in SNS College of Technology, Coimbatore, on 19/02/2015.

#### Faculty Development Program

- 1. Successfully completed a highly regarded five-day Faculty Development Training Program on "Inculcating Universal Human Values in Technical Education," organized by AICTE. Acquired essential skills to foster an inclusive and valuedriven learning environment. (09/01/2023 to 13/01/2023)
- Participated in and successfully completed the prestigious 14-day AICTE Training and Learning (ATAL) Faculty Development Training Program on "Artificial Intelligence Techniques in Smart Grid enabled Restructured Power System – Practical Applications." Gained practical insights into leveraging artificial intelligence in shaping the future of the power industry. (07/11/2022 to 18/11/2022)

- 3. Engaged in a comprehensive ten-day online Faculty Development Program on "Applications of Artificial Intelligence in Engineering," conducted by NIT Warangal. Explored the latest advancements in applying AI to engineering practices. (08/08/2022 to 19/08/2022)
- 4. Actively participated in a five-day Faculty Development Training Program on "The Role of Artificial Intelligence in Renewable Energy Applications," organized by KPR Institute of Engineering and Technology, Coimbatore. Explored the potential of AI in driving sustainable energy solutions. (01/08/2022 to 05/08/2022)
- 5. Attended a dynamic one-day Faculty Development Training Program on "Recent Trends in E-Vehicles" organized by Krishnasamy College of Engineering & Technology, Cuddalore. Gained insights into the latest advancements in electric vehicle technology. (05/03/2022)
- Enrolled in a comprehensive six-day Faculty Development Training Program on "Solid State Drives," organized by University College of Engineering, Thirukuvalai, and sponsored by the esteemed Centre for Faculty Development, Anna University. Expanded knowledge in solid-state drive technology. (01/01/2022 to 05/02/2022)
- Actively participated in an enriching one-day AICTE workshop at PSG Institute of Technology, focusing on the latest trends and developments in the field. (07/05/2019)
- 8. Attended a two-day National Digital Security Conference, gaining valuable insights into safeguarding digital assets and data. (20/12/2018 & 21/12/2018)
- 9. Successfully completed a rigorous two-week ISTE Short-Term Training Program on Electrical Power Systems conducted by the renowned IIT Kharagpur. Developed a strong foundation in electrical power systems. (12/06/2017 to 15/07/2017).

## Seminars/workshops Attended

- 1. Actively participated in a transformative five-day workshop on "Incorporating Universal Human Values in Education," jointly organized by UGC and AICTE. Explored strategies to integrate essential human values into the educational ecosystem. (11/07/2022 to 15/07/2022)
- 2. Engaged in a comprehensive two-day workshop on "Programmable Logic Controller" at G-Engineering, Coimbatore. Developed practical skills in PLC programming and automation. (09/11/2018 to 10/11/2018)
- 3. Participated in a highly regarded two-day National Workshop on hands-on training in "Soft Computing Techniques is using MATLAB" at KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore. Acquired proficiency in utilizing MATLAB for soft computing applications. (04/03/2016 to 05/03/2016)
- 4. Actively participated in a two-day hands-on training workshop on "Image Processing Techniques using MATLAB" organized by the IIPC Association at Kongu Engineering College, Coimbatore. Explored advanced image processing techniques and their implementation in MATLAB. (19/02/2016 to 20/02/2016)
- 5. Attended a highly informative one-day workshop on "Power Quality and Energy Auditing" at KPR Institute of Engineering and Technology, Coimbatore. Gained

valuable insights into power quality analysis and energy auditing methodologies. (12/02/2016)

- 6. Participated in an IEEE-sponsored two-day workshop on "Programming in MATLAB/Simulink for Electrical Engineers" at Karpagam College of Engineering, Coimbatore. Enhanced proficiency in MATLAB programming and Simulink modeling for electrical engineering applications. (21/09/2015 to 22/09/2015)
- Actively engaged in a comprehensive two-day workshop on "Embedded Systems and Its Applications" at Maharaja Institute of Technology, Coimbatore. Acquired practical knowledge in designing and implementing embedded systems. (03/09/2015 to 04/09/2015)
- 8. Participated in a highly informative one-day workshop on "Microgrids for Renewable Energy Systems" at Sri Ramakrishna Engineering College, Coimbatore. Explored the intricacies of microgrid design and integration of renewable energy sources. (07/08/2015)
- 9. Attended a thought-provoking seminar on "Recent Trends and Research Methodologies in Engineering Science" at KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore. Gained valuable insights into emerging research methodologies and trends in engineering. (06/02/2013 to 07/02/2013)
- Actively participated and made significant contributions during Educators Day in Chennai, showcasing a commitment to professional growth and collaboration. (16/10/2012 to 17/10/2012)
- 11. Attended a comprehensive one-day workshop on "System Simulation using MATLAB R2010b" at KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore. Gained proficiency in MATLAB-based system simulation techniques. (02/02/2011)

## **Roles & Responsibilities**

- 1. Department Exam Cell Coordinator
- 2. Department NBA Coordinator
- 3. Admission team
- 4. Department Linguaskill Coordinator
- 5. Project guide for 8 batches of Under Graduate Students.

#### PERSONAL PROFILE

Father Name	: Mr.V.Rajendran
Date of birth	: 08/02/1992
Gender	: Male
Marital Status	: Married
Religion	: Hindu
Nationality	: Indian

I affirm the accuracy and integrity of the information provided in this resume, which reflects my qualifications and experiences. I welcome any necessary verification or background checks to validate the authenticity of my credentials.

Place : Coimbatore Date : 27/06/2023

[R. Santhoshkumar]