

CURRICULUM VITAE



Dr. RAJENDRAN SOMASUNDARAM, M.E., Ph.D., MISTE,

Professor & Head,

Department of Electrical and Electronics Engineering,

Dhirajlal Gandhi College of Technology,

Salem – 636309, Tamil Nadu, INDIA

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Educational Qualifications

Ph.D., (Faculty of Electrical Engineering)		Year: Nov 2014
• University	:	Anna University, Chennai, INDIA.
• Faculty	:	Electrical Engineering
• Area of Research	:	Power Electronics applications in renewable energy
• Title	:	Non-linear Controller based Boost DC-AC Inverter for Grid Connected Solar Power Generation

M.E., (Power Systems)		Year of Pass: June 2007
• University	:	Anna University, Chennai, INDIA.
• Course	:	Power Electronics and Drives
• Grade/Class	:	First Class

B.E., (Electrical and Electronics Engineering)		Year of Pass: May 2001
• University	:	Bharathiar University, Coimbatore, INDIA.
• College/Institution	:	Government College of Technology, Coimbatore, Tamil Nadu, INDIA.
• Grade/Class	:	First Class

Specialization and Research Areas of Interest

Renewable Energy with special interest in Solar Energy, Grid Integration of Renewable Energy Systems, Control System esp. in soft computing techniques, State Space Approach and Power Electronics applications in Renewable Energy.

Funded/Sponsored Projects/Laboratory Development/Consultancy Work

- I. Funding Agency : G5 Switch Gears, Salem, T.N, India
Consultancy work Title : Design and Development of Battery Packed Power Supply for Switchgear Units
Budget : Rs. 1,00,000.00
Status : Ongoing & Fund Received on 06 – 02 – 2017.
Role : Principal Investigator

- II. Funding Agency : Mega Tech Scientific Instruments, Coimbatore, T.N., India
Lab Title : Centre of Excellence for Industrial Drives and Renewable Energy
Budget : Rs. 71,000.00
Status : Completed & Fund Received on 29 – 06 – 2016.
Role : Principal Investigator

- III. Funding Agency : Department of Science & Technology (DST)
Project Scheme : Technology Systems Development Programme (TSDP)
Project Title : Design and Development of Dry (Multipurpose) Electrical discharge Machine
Investigator : Co-Principal Investigator
Industry Collaboration: Mukesh & Associates, Salem, T.N., INDIA
Budget : Rs. 40 Lakhs,
Status : Submitted

- IV. Funding Agency : Indian Society for Technical Education
Funding Scheme : Workshop / Conference / Seminar
Program Title : PCB Designing and Manufacturing Techniques
Role : Coordinator
Budget : Rs. 40,000.00, 22-02-2016 & 23-02-2016
Status : Completed & Sanctioned Rs 5,000.00.

V. Funding Agency : GVD Electrical, Coimbatore, T.N., India
Funding Scheme : Workshop / Conference / Seminar
Program Title : Conference on "Emerging Trends in Renewable Energy"
Role : Coordinator
Budget : Rs. 50,000.00 on 04-04-2016
Status : Completed & Sanctioned Rs 5,000.00.

Award

- Received Award "Innovative Academic Research & Dedicated Teaching Faculty Professional Award" from the Engineering Today organized by the Society of Engineers and Technicians, Kuala Lumpur, Malaysia on 12th March 2017.
- Received Award "Best Outstanding Researcher Award" from the Honorable Chief Minister of Puducherry, organized by the Top Engineers, Puducherry, INDIA on 26th March 2017.

Teaching/Research/Industrial Experience (14 Years)

Professor & Head	<i>03 August 2015 – Till date</i>
Department of Electrical and Electronics Engineering, Dhirajlal Gandhi College of Technology, Salem, Tamil Nadu, INDIA.	
<ul style="list-style-type: none">• Nature of Work: Head of the Department, NAAC Coordinator & Overall Dept. Coordinator• Subject Handling: Transmission & Distribution, Circuit Theory and Electronic Devices & Circuits.	

Lecturer	<i>02 September 2013 – 31 July 2015</i>
Department of Electrical and Electronics Engineering, Faculty of Engineering, MAHSA University, Kuala Lumpur, MALAYSIA.	
<ul style="list-style-type: none">• Subjects Handling: Electrical & Electronic Engineering Principles & Circuit Analysis• Lab Conducted: Electrical and Electronic Engineering Lab	

Asst. Professor	<i>25 June 2012 – 24 May 2013</i>
Department of Electrical and Electronics Engineering Vivekanandha College of Technology for Women, Namakkal, Tamil Nadu, INDIA.	
<ul style="list-style-type: none">• Subjects Handling: Power Quality Engineering, Special Electrical Machines• Lab Conducted: Power Electronics Lab.	

Asst. Professor*11 June 2010 – 17 May 2012*

Department of Electrical and Electronics Engineering

Adhiyamaan College of Engineering (Autonomous), Hosur, Tamil Nadu, INDIA.

- Subjects Handled: Electromagnetic Theory, Electrical Drives and Control, Network Analysis and Synthesis, Electrical Machine Design and Control Systems.
- Lab Conducted: Electrical Machines and Control systems Lab.

Asst. Professor*11 June 2007 – 31 May 2010*

Department of Electrical and Electronics Engineering

Kuppam Engineering College, Kuppam, Andhra Pradesh, INDIA.

- Subjects Handled: Power Electronics, Computer Methods in Power Systems, Network Analysis, Basic Electrical Engineering, Electrical Measurements and Non-Conventional Energy Sources, HVDC Transmission.
- Lab Conducted: Simulation of Electrical Systems lab (PSpice), Power Electronics Lab, Electric Circuits and Simulation Lab.

Lecturer*18 June 2001 – 30 June 2005*

Department of Electrical & Electronics Engineering

Annai Mathammal Sheela Engineering College, Namakkal, Tamil Nadu, INDIA.

- Subjects Handled: Basic Electrical Engineering, Power System Protection and Switch Gear, Electric Circuit Analysis, A.C and D.C Machines and Control Systems.
- Lab Conducted: Measurements and Control Engineering Lab, Electrical Machines-I Lab and Electric Circuits Lab.

Guest Lecture/ Seminars Delivered

1. Delivered the Guest Lecture on the topic “**Distributed Generation**” on 20 – 12 – 2016 in the TEQIP sponsored Faculty Development Programme on “ Integration of Renewable Energy, Energy Storage and System Operation” Organized by the department of Electrical and Electronics Engineering, Government College of Engineering, Salem, T.N., India.
2. Delivered the Guest Lecture on the topic “**Transformers**” Organized by the department of Electrical and Electronics Engineering, Dhirajlal Gandhi College of Technology, Salem, T.N., India on 28– 08 – 2018.

Publications

International Journal

1. R.Manikandan, S.Rajendran & R.Arulmozhiyal, "DSPACE Real-time Implementation of Fuzzy PID Position Controller for Vertical Rotating Single Link ARM Robot using Four Quadrant BLDC Drive", ACTA Scientiarum. Technology, ISSN: 1807-8664, Vol. 39, Issue 3, pp.: 301-311, 2017. **(SCI & Scopus)**
2. S.Rajendran & S.Senthilkumar, "A Fuzzy Logic Control based Standalone Regulated Solar Power Generation Using Boost Inverter by Sinusoidal Pulse Width Modulation", Accepted to publish in Journal of Computational and Theoretical Nanoscience, ISSN: 1546-1955, 2016. **(SCI & Scopus)**
3. S.Shanmuga Priyan, T.Hariharan & S.Rajendran, "Simulation Modelling of Photovoltaic fed DC/DC Cuk Converter", International Journal of Modern Trends in Engineering and Science, ISSN: 2348-3121, Vol.3, Issue 4, 2016, pp.: 79 – 83.
5. S.Shanmuga Priyan, T.Hariharan & S.Rajendran, "An Innovative Approach For Managing Residential Energy Demand Using Mini Hydro Dynamo Electric Generator", International Journal of Advanced Technology in Engineering and Science, ISSN: 2348-7550, Vol.3, Issue 1, 2015, pp.: 213 – 220.
6. S.Rajendran and S.Senthil Kumar, "A Solar Power Generation for Single Phase AC Grid using Boost DC – AC Inverter with Non-Linear State Variable Structure Control", U.P.B. Sci. Bull., Series C: Electrical Engineering and Computer Science, ISSN 1454 – 234X (Old), 2286 – 3540 (New), Vol. 76, Issue: 4, pp.: 73-84.2014. **(Scopus)**
7. S.Rajendran and S.Senthil Kumar, " A Standalone Solar Power Generation using Boost Inverter by Fuzzy Logic Controller", Research Journal of Applied Sciences, ISSN 1815932X, Vol. 9, Issue: 6, pp.: 361-368.2014. **(Scopus)**
8. S.Rajendran & S.Senthil Kumar, "A Single Phase AC Grid Tied Solar Power Generation using Boost DC – AC Inverter with Modified Non-Linear State Variable Structure Control", Australian Journal of Basic and Applied Sciences, ISSN 1991-8178, Vol.1, pp.: 140-148. 2013. **(Scopus)**

Conference Publication

1. S.R.Viknesh, P.Venkattappan R.Manikandan and S.Rajendran, "Modeling and Analysis on PWM Techniques for AC Voltage Controllers", International Conference on Computer

Communication and Informatics (*ICCCI* -2018), 978-1-5386-2238-4/18/\$31.00 ©2018 IEEE, 2018.

2. R.Monisha, S.Vigneswari, R.Manikandan and S.Rajendran, "Modeling and Analysis on Coupling of Electrical Machines", 2017 Innovations in Power and Advanced Computing Technologies (i-PACT), IEEE: doi: 10.1109/IPACT.2017.8245198, Vellore, 2017, pp. 1-7.
3. S.Vigneswari, B.Priyadharshini, R.Monisha and S.Rajendran, "The Case Study – Energy Hub", Conference proceedings of NCETRE 2016, International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, Special Issue Vol.4, ISSN 2321 – 2004, 2016.
4. S.Rajendran, "Double Loop Controlled Boost DC-AC Inverter," Proceeding of the National Conference on Power Electronics and Drives, PEDC'07, Organized by Department of Electrical and Electronics Engineering, A.C. College of Engineering & Technology, Karaikudi, Tamil Nadu, INDIA., 14 march 2007, pp.191-196.

International Conference

1. S.R.Viknesh, P.Venkattappan R.Manikandan and S.Rajendran, "Modeling and Analysis on PWM Techniques for AC Voltage Controllers", Presented in the 2018 International Conference on Computer Communication and Informatics (*ICCCI* -2018), Jan. 04 – 06, Coimbatore, INDIA, 2018.
2. M.Muthukumar, S.Shanmuga Priyan and S.Rajendran, "Design of Half Bridge Inverter with Transformer Assisted Zero Voltage Switching Topology Using Pspice Orcade Simulation", Presented in the 1st International Conference on Innovations in Engineering, Technology and Science (ICIETS – 2017), K.Ramakrishnan College of Engineering, Tiruchirappalli, T.N., INDIA, 24-25 Feb 2017.
3. S.Rajendran and Dr.S.Senthil Kumar, "A standalone solar power generation using boost inverter by fuzzy logic controller", accepted to present in the 5th International conference on intelligent and advanced systems-ICIAS2014 organized by Universiti Teknologi Petronas and ieee-signal processing society, Malaysia section, KLCC, Kuala Lumpur, MALAYSIA, 3-5 June 2014, Paper id: #1569887177
4. S.Rajendran and Dr.S.Senthil Kumar, "A single stage boost DC – AC inverter using simple variable structure closed loop control for single phase AC Grid and Solar cell", accepted to present in *IET-Renewable Power Generation Conference 2013 (IET-RPG2013)* organized by north china electric power university, Beijing, CHINA, 9-11 Sep'2013, Paper id: 007.

National Conference

1. S.Rajendran, Dr.S.Senthil Kumar, "PWM Techniques for Voltage Source Inverters", in *National Conference on Advanced Technologies in Computing Communication and Electrical Engineering – NCATCCEE'16*, The Kavary Engineering College, Salem, T.N., INDIA, 30th Sep 2016.
2. S.Vigneswari, B.Priyadharshini, R.Monisha and S.Rajendran, "The Case Study – Energy Hub", in *National Conference on Emerging Trends in Renewable Energy NCETRE 2016*, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA, 4th April 2016.
3. S.Rajendran, Dr.S.Senthil Kumar, "Solar Power Generation for Domestic Appliances using Boost DC-AC Inverter," in *National Conference on Advances in Power Electronics and Industrial Drives*, Government College of Engineering, Salem-11, T.N., INDIA, 7th March 2013.
4. S.Rajendran, "Solar Cell Integrated with Single Phase AC Grid by using Boost and Buck Converter," in *National Conference on Recent Advancements in Engineering & Technology*, NCRAET 2010, Organized by ISTE Chapter & ISTE Students Chapter, SSM College of Engineering, Komarapalayam, T.N., INDIA., 9 April 2010.
5. S.Rajendran, "Double Loop Controlled Boost DC-AC Inverter," *Proceeding of the National Conference on Power Electronics and Drives, PEDC'07*, A.C. College of Engineering & Technology, Karaikudi, T.N., INDIA., 14 march 2007.

Short-term Course/ Seminars/Workshops Attended

1. Attended 5 days QIP sponsored short term course on "Real-Time Simulation for Power Electronics and Power Systems", IISc Bangalore, INDIA, July 10th, 2017 to July 14th, 2017.
2. Attended 5 days QIP sponsored short term course on "Pulse Width Modulation Technique for Voltage Source Inverter", IISc Bangalore, INDIA, Nov 21st, 2016 to Nov 25th, 2016.
3. Participated in the Three days training in "MAHSA Staff Development Program", MAHSA University, Kuala Lumpur, MALAYSIA, 5, 12 & 13 July 2014.
4. Participated in the Two days Seminar on "Learning Outcomes and Student Learning Time in Outcome Based Education", MAHSA University, Kuala Lumpur, MALAYSIA, 11 – 12 January 2014.
5. Participated in the one day workshop on "Fuzzy Systems and Applications", National Institute of Technology, Tiruchirappalli, T.N., INDIA., 13th June 2013.
6. Participated in the short-term training program on "Solar PV Electric Conversion Systems (SPVECS)", National Institute of Technology, Tiruchirappalli, T.N., INDIA. 18 January 2013 to 19 January 2013.
7. Participated one week Staff Development Program on Applications of digital image processing & neural networks in MATLAB, Adhiyamaan College of Engineering, Hosur, T.N., INDIA, 12th March 2012 to 17th March 2012.

8. Participated in the one day workshop on “8051, ARM and RISC Architecture with KEIL”, SNS College of Technology, Coimbatore, T.N., INDIA., 4th February 2012.
9. Attended Five days MISSION10X workshop on High Impact Teaching Skills organized by MISSION10X - Wipro at Adhiyamaan College of Engineering, Hosur, T.N., INDIA., 21June 2011 to 25June 2011.
10. Attended 10 days ISTE Workshop on “ Solar Photovoltaic: Fundamentals, Technologies and Applications ” under the National Mission on Education through ICT and Ministry of New and Renewable Energy, Conducted by IIT Bombay and Organized by Department of Electrical and Electronics Engineering, Govt. College of Engineering, Salem, T.N., INDIA., Dec 10th, 2011 to Dec 22nd, 2011.
11. Attended the one day seminar on “ Emerging Trends in Electrical and Electronics Engineering” Trichy Engineering College, Trichy, T.N., INDIA., 25 March 2011.
12. Attended the one day workshop on “Application of mi-power software for simulation of electrical systems” Kuppam Engineering College, Kuppam, Andhra Pradesh, INDIA., 12 and 13 Aug 2010.
13. Attended the one day workshop on “Wireless Sensor Networks” Kuppam Engineering College, Kuppam, Andhra Pradesh, INDIA., 17 Jan 2009.
14. Participated in one day workshop on “Student Counselling” Organized by Ministry of Human Resource Development, National Institute of Technical Teachers Training & Research (NITTTR), Chennai, T.N., INDIA, 29 March 2008.
15. Attended the AICTE-QIP sponsored short-term course on “Electrical Machines and Power Electronics in Renewable Energy Systems” National Institute of Technology, Tiruchirappalli, T.N., INDIA, 28 jan’08 to 1 Feb’08.

National Conference / Workshop / Value Added Course / Guest Lecture Organized

1. Conducted Value Added Course on “MATLAB Simulink with ARDUINO Programming”, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA, 19–06–2017.
2. Organized **IEEE-PSES sponsored** One-day hands-on Workshop on “**LED Luminaires, Fabrication and Testing**”, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA, 15–04–2016.
3. Organized ISTE Sponsored National Conference on “Emerging Trends in Renewable Energy”, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA, 04–04–16.

4. Organized one day Special Lecture on LED Luminaires Design, Fabrication and Testing, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA, 01-03-2016.
5. Organized ISTE sponsored two days National Level Workshop on PCB Design and Manufacturing Techniques, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA from 22 – 02 – 2016 to 23 – 02 – 2016.
6. Introduced a Value Added Course and conducted on MATLAB / Simulink – Programming and Simulation of Electrical Systems, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA from 26 – 08 – 2015 to 31 – 09 – 2015.
7. Identified a Resource Person Dr.A.Jeevanandham and Organized Guest Lecture on Electromagnetic Theory, Dhirajlal Gandhi College of Technology, Salem, T.N., INDIA on 28 – 08 – 2015.
8. Organized National level students technical symposium “EVOLUTION 2K09 & EVOLUTION 2K10”, Kuppam Engineering College, Kuppam, A.P., INDIA.

Simulation Tools Knowledge / Software Skills

- Working knowledge in circuit simulation tools like Matlab-Simulink and Pspice
- MS Office

Membership of Professional Bodies

- Life Member (LM 60123) in Indian Society for Technical Education- **ISTE**, INDIA.
- Member in Confederation of Indian Industries (**CII**), India
- Life Member (171819) in International Association of Engineers (IAENG), Hong Kong.

Personal Details

<i>Father's Name</i>	Mr.S.Somasundaram
<i>Sex</i>	Male
<i>Date of Birth</i>	30.05.1979
<i>Marital status</i>	Married
<i>Religion</i>	Hindu
<i>Nationality</i>	Indian
<i>Communication Address</i>	<u>Resident Address:</u> 264/1, Kulalar Street, Aanai Gounder Vattam, Jagir Reddypattyi, Salem – 636 302, Tamil Nadu.
<i>Linguistic Ability</i>	Tamil (Read, Write, Speak) English (Read, Write, Speak)

Hindi (Read, Write)
Telugu (speak)

Declaration

I hereby declare that the above written particulars are true to the best of my knowledge and belief.

Place: Salem

Yours Truly,



Date: 18.09.2018

Dr. RAJENDRAN SOMASUNDARAM