

## Dr.S.SENTHIL KUMAR

Assistant Professor (Sr.Gr) & Head Incharge  
Electrical and Electronics Engineering Department  
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### ➤ Research Area:

Analog and Digital Design  
Power Electronics  
Solar power systems

### ➤ Educational Qualifications:

Qualification	Department	Year (From -To)	Percentage	Class
Ph.D	ELECTRICAL	2011 - 2018	nil	nil
M.E	VLSI DESIGN	2005 - 2007	72	FIRST
B.E	ELECTRICAL AND ELCTRONICS ENGG.	1993 - 1997	67	FIRST

### ➤ Experience: ( Years )

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
		DD-MM-YYYY	DD-MM-YYYY	
UNIVESITY COLLEGE OF ENGINEERING ARIYALUR	ASSISTANT PROFESSOR	03-09-2009	TILL DATE	12 years 08 months
KONGU ENGINEERING COLLEGE	LECTURER	09-08-2007	02-09-2009	2 YEARS 1 MONTH
SRI VENKATACHALA- PATHY POLYTECHNIC COLLEGE	LECTURER	14-07-2004	16-07-2005	1 YEAR
SHRI NATRAJ CERAMIC AND CHEMICAL INDUSTRIES	ELECTRICAL ENGINEER	23-06-2000	20-02-2004	3 YEARS 8 MONTHS
ELECTRICITY DEPARTMENT PONDICHERRY	GRADUATE APPRENTICE TRAINEE	28-01-1999	27-01-2000	1 YEAR
KUMAR & CO	ELECTRICAL ENGINEER	10-09-1997	18-12-1998	1YEAR 3 MONTHS

➤ **Additional / Academic Responsibilities at University:**

1. Acting as Coordinator-Maintenance (Electrical) from 03-10-2012 to TILL DATE.
2. Acting as Co-ordinator for Entrepreneurship Development cell (EDC)
3. Acting as Co-Ordinator for Industry Institute Partnership cell (IIP)
4. Acted as Exam cell co-ordinator from 29-10-20 to 07-10-21
5. Acted as Executive Warden from 03-10-2012 to 07-08-2014.

➤ **Professional Activities:**

- 1.Served as Project Co-ordinator for the INNOVAUTT club for Ariyalur campus inaugurated by Anna University Tiruchirappalli.
- 2.Acting as Board of Study Member for B.VocProgramme-SSDE-DDU KAUSHAL Centre at ICED-Bharathidasan University.
- 3.Acted as Co-ordinator for the CFD, Anna University sponsored Faculty Development Training Programme on “EE8251-Circuit Theory” organized by EEE Department, University College of Engineering Ariyalur , from 20-11-2017 to 26-11-2017.
- 4.Acted as Co-ordinator for the CFD, Anna University sponsored Faculty Development Training Programme on “EE8353-Electrical Drives and Controls” organized by EEE Department, University College of Engineering Ariyalur , from 17-05-2021 to 22-05-2021.

**Patent:**

Title of the invention: INTELLIGENT IMAGING TECHNIQUE FOR  
PRECISION FARMING.

Application No.202041029267 A

Date of filing of Application: 10/07/2020

Patent Application Publication Date: 31/07/2020

**Awards and Certifications:**

1. Guided the project entitled “REMOTE CONTROL OF TAP CHANGING WELDING TRANSFORMER” which secured second place in regional level and third place in state level competition during the year 2004-2005
2. Passed the national examination for certification of energy manager held in the month of September 2015 and qualified as CERTIFIED ENERGY MANAGER from 1<sup>st</sup> June 2016

➤ **Completed B.E/M.E Projects:**

- Number of ME Projects Completed: 2 Nos
- Number of BE Project Completed: 21Nos

➤ **Guest lecture delivered:**

- Delivered guest lecture in ISTE Sponsored national level one day workshop on 05-03-2011 titled “ Low Power Design in VLSI” conducted by V.R.S. College of Engineering and Technology , Villupuram
- Delivered guest lecture on 08-12-2012 titled “Advanced System Design and Testing” conducted by EEE Department, Angel. College of Engineering and Technology, Tirupur.
- Delivered guest lecture on 15-09-2017 titled “Electrical Machines -II” conducted by EEE Department, Annai College of Engineering and Technology, Kumbakonam.
- Delivered guest lecture on 20-11-2017 titled “Analysis and Synthesis of Circuits” in the Anna University Sponsored one Week FDP on Circuit Theory, conducted by EEE Department, University College of Engineering Ariyalur , Ariyalur.
- Delivered guest lecture on 24-11-2017 titled “Simulation of Series and Parallel Resonance Circuits-Practical Session” in the Anna University Sponsored one Week FDP on Circuit Theory, conducted by EEE Department, University College of Engineering Ariyalur , Ariyalur.
- Delivered guest lecture on 15-07-2020 titled “Workshop on Aurdino” conducted by ECE Department, SRM TRP Engineering College, Trichy.
- Delivered guest lecture on 27-10-2020 titled “Conservation and Judicial usage of Energy for the Future” conducted by EEE Department, Nandha Engineering College, Perundurai Erode.
- Delivered guest lecture on 25-02-2022 titled “Energy saved is Energy earned” conducted by EEE Department, Nandha Engineering College, Perundurai Erode.
- Delivered guest lecture on 04-02--2022 titled “Design of Controllers” in the Anna University Sponsored one Week FDP on Solid State drives, conducted by EEE Department, University College of Engineering Thirukkuvalai , Thirukkuvalai.

➤ **NPTEL courses completed:**

<b>S.No</b>	<b>Name of the Course</b>	<b>Conducted by</b>	<b>Duration</b>
1.	Op-Amp Practical Applications: Design, Simulation and Implementation	Department of Electronic Systems Engineering, Division of Electrical Sciences, IISc Bangalore	12 Weeks
2.	Control System Design	Department of Instrumentation and Applied Physics, IISc Bangalore	12 Weeks
3.	Electrical machines -II	Indian Institute of Technology Kharagpur	12 Weeks
4	Patent Law for Engineers and Scientist	Indian Institute of Technology Madras	12 Weeks
5	Power Electronics	Indian Institute of Science, Bangalore	12 Weeks

➤ **List of Seminar / Short Term Course /FDP/ Workshop attended: (Within India)**

- Completed the industrial Automation Training course in PLC and SCADA held from 16-06-2003 to 21-06-2003 at Prolific Systems And Technologies Pvt. Ltd.
- Participated in the orientation programme in “Microcontrollers” organized by Elumalai Polytechnic College, Villupuram from 17-12-2004 to 18-12-2004.
- Participated in the VLSI Education Workshop organized by National Institute of Science and Technology, Berhampur from 19-10-2005 to 23-10-2005.
- Participated in the National seminar on embedded systems, organized by SASTRA University Thanjavur, from 26-10-2006 to 28-10-2006.
- Participated in the TEQIP sponsored FDP on Embedded systems, organized by EEE Department, Government College of Technology, Coimbatore. from 22-01-2007 to 24-01-2007.
- Participated in the TEQIP sponsored Tribal Development Programme “Assembling Practice of low Power LED Lighting System”, organized by ECE Department, Government College of Technology, Coimbatore. from 26-04-2007 to 28-04-2007.
- Participated in the CSIR Sponsored National seminar on “Modern Trends in Instrumentation and Controls for Industrial Automation”, organized by Dept. of Mechanical Engineering, Kongu Engineering College ,Erode, from 22-05-2008 to 23-05-2008.
- Participated in the CSIR Sponsored seminar on “Research Issues in Image Processing”, organized by Department of EEE, Kongu Engineering College , Erode, from 20-06-2008 to 21-06-2008.
- Participated in the CSIR Sponsored National seminar on “PLC based Industrial Applications”, organized by Department of EIE, Kongu Engineering College, Erode, from 24-07-2008 to 25-07-2008.
- Participated in Workshop on “FPGA based System Design Using ALTERA EDA Tool”, organized by Department of ECE, Kongu Engineering College, Erode, on 21-11-2008 .

- Participated in the DST Sponsored seminar on “Wavelets for Data and Information Analysis”, organized by Department of EEE, Kongu Engineering College, Erode, from 01-12-2008 to 03-12-2008.
- Participated in the MHRD-AICTE Sponsored SDP on “Recent Research on Fuzzy Logic and Neural Networks”, organized by Department of EEE and Mathematics, NITT, Trichy, from 21-06-2010 to 03-06-2010.
- Participated in the two days workshop on “Networking Simulator Tools”, organized by Department of ECE, Anna University, Trichy, from 17-07-2010 to 18-07-2010.
- Participated in the two days workshop on “Embedded Engineering Solutions for Automation”, organized by Department of EEE, Anna University, Trichy, from 14-10-2010 to 15-10-2010.
- Participated in the two days national seminar on “Research Issues on PID Controllers and Soft computing Techniques” conducted by Department of Instrumentation and control Engineering held on 17-02-2012 and 18-02-2012 at Tamilnadu College of Engineering, Coimbatore.
- Participated in Two days National Workshop on “Research Methodology for Engineering and Management”, organized by Department of EEE & ECE, Kongu Engineering College, Erode, from 31-08-2012 to 01-09-2012.
- Participated in the AICTE Sponsored two weeks FDP on “Avenues for Advanced Research in Modern Power Electronics and Hybrid Energy Systems”, organized by Department of EEE, Government College of Technology, Coimbatore, from 15-05-2013 to 28-05-2013.
- Participated in the TEQIP Sponsored short term course on “Low Power controller Design Using MSP-430 Microcontroller”, organized by Department of EEE, NIT, Trichy, from 20-05-2014 to 21-05-2014.
- Participated in Two week ISTE workshop on Control systems, organized by Indian Institute of Technology, Kharagpur, from 02-12-2014 to 12-12-2014.
- Participated in one day workshop on ETAP software and its applications, organized by University College of Engineering Ariyalur, , on 03-03-2015.
- Presented a paper entitled “Enhancing the Efficiency of Solar Panel by reducing the Environmental Temperature” in the national workshop on Recent Advances in Engineering Materials and Chemical Sciences, organized by University College of Engineering Villupuram, , on 26-02-2016
- Participated in the TEQIP Sponsored short term course on “Role of Power Electronics in Power Engineering”, organized by Department of EEE, NIT, Trichy, from 04-03-2016 to 05-03-2016.
- Participated in the short term course on “Photovoltaic Module Interconnection Schemes and MPPT Implementation”, organized by Department of EEE, NIT, Trichy, from 27-05-2016 to 28-05-2016.
- Participated in FDP on “Graphical System Design Platform-Labview for Engineering Applications”, organized by School of EEE, SASTRA University, Thanjavur from 30-05-2016 to 04-06-2016.

- Participated in FDP on “VLSI Design Flow from Front End to Back End”, organized by School of EEE, SASTRA University, Thanjavur, from 13-06-2016 to 18-06-2016
- Participated in FDP on “EE-6603- Power System Operation and Control”, organized by University College of Engineering Thirukkuvilai, , from 21-11-2016 to 27-11-2016.
- Participated in FDP on “MA-6351- Transforms and Partial Differential Equations”, organized by University College of Engineering Ariyalur, , from 25-05-2017 to 31-05-2017.
- Participated in FDP on “ARM Processor for Power Electronics”, organized by School of Electrical Engineering, VIT University, Vellore from 13-10-2017 to 15-10-2017.
- Participated in AICTE sponsored FDP on “Digital Energy Network: Internet of things and Smart Grid Technologies”, organized by Department of Electrical and Electronics Engineering, Coimbatore Institute of Technology ,Coimbatore from 29-12-2017 to 11-01-2018.
- Participated in AICTE sponsored FDP on “Future automation on Protection in Indian power sector”, organized by Department of Electrical and Electronics Engineering, University College of Engineering-BIT campus ,Trichy from 26-11-2021 to 09-12-2021.
- Participated in AICTE sponsored FDP on “Universak Human Vaules-1”, organized by All India Council of Technical Education, New Delhi from 06-06-2022 to 10-06-2022.

## ➤ **Publications :**

### **a. International Journals:**

1. **S.SenthilKumar**.et.al (2021), “Power Efficient VLSI Architecture of 4X4 Modified Column Bypassing Multiplier”, Journal of Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 4, 2021, Pages. 2116 – 2122
2. **S.SenthilKumar**, S.Rajarajacholan & M.Margabandhu (2021) “Modelling of MSVPWM for Single Phase H-bridge Five-level Inverter with PV and FPGA Implementation”, Solid State Technology Volume: 64 Issue: 2.
3. **S.SenthilKumar**.et.al(2017), “Efficient Implementation of MESVPWM in FPGA for Single Phase Cascaded H-Bridge Multilevel Inverter in VLSI”, Journal of computational and theoretical Nanoscience,Vol.14 PP 4634-4640.
4. M.Margabandhu, S.Sendhilmathan, **S.SenthilKumar**, K.Hirthana (2016), “Experimental Investigation on Heat Transfer rate of Co-MnFerrofluid in External Magnetic field”, Material Science-Poland, Vol 0048.
5. **S.Senthilkumar**, B.karthikeyan et.al (2015), “Efficient Implementation of ESVPWM for Single Phase H-Bridge Multilevel Inverter”, Australian Journal Basic and Applied Science, Vol 9(27),ISSN 1991-8178,PP448-456.

6. S.Rajarajacholan, **S.Senthil Kumar** (2016) “Analysis of Buck –Boost Converter with an Auxiliary Resonant Circuit”, J Electr. Eng. Technol. ,ISSN 2093-7423, Vol. 11(3),PP 781-789.
7. M.Margabandhu, S.Sendhilynathan, **S.Senthil Kumar**, K.Hirthana (2016), “Investigation of Structural Morphological and Magnetic properties and Biomedical Applications of Cu<sup>2+</sup> Substituted Uncoated Cobalt Ferrite Nanoparticles” Brazilian Archives of Biology and Technology, Vol 59.e16161046,PP. 1-10
8. **S.Senthilkumar**, B.karthikeyan et.al (2015), “Automatic Positioning and Optimal Inclination Angles of Photovoltaic Panels for Maximum Power output”, International Journal of Applied Engineering Research, Vol 10,ISSN 0973-4562,PP34779-34784.

## ➤ **Conferences**

### **a. International Conferences:**

- Presented a paper titled “Simultaneous Perturbation Learning Rule for Hopfield Neural Networks” in the international conference on Advanced Communication Systems, organized by Department of ECE, Government College of Technology, Coimbatore, from 10-01-2007 to 12-01-2007.
- Presented a paper titled “Analysis of Buck-Boost converter with an Auxiliary Resonant Circuit” in the international conference on Recent Trends in Electronics, Communication and Computation Technologies, organized by Department of ECE, Sri Ramanathan Engineering College, Tirupur, from during 05-03-2015 to 06-03-2015.
- Presented a paper titled “ Intelligent LDR Positioning Based Solar Tracking Systems Using microcontroller AT89S51” in the international conference on Innovations and Research in Marine Electrical and Electronics Engineering, organized by Department of EEE(Marine), AMET University, during 10-04-2015 to 11-04-2015
- Presented a paper titled “ Analysis of impact of switching off light event on indian grid frequency” in conference on ICIRMCT 2021

### **b. National Conferences:**

Presented a paper entitled “Remote controlled Tap changing Welding Transformer” in DRDO sponsored national conference on Control Communication and System Engineering held on 14-09-2012 at Tamilnadu College of Engineering, Coimbatore

### EVENTS CONDUCTED AT DEPARTMENTAL LEVEL

<b>S.No</b>	<b>Conducted/ Organised</b>	<b>Title</b>	<b>Period</b>
1	National Level one day Workshop	Modelling and Control of Electrical machines & Power Electronics Converters	13 March 2014
2	National Conference	Advanced Computing Technologies on power conversion and Control Systems	16 March 2016
3	National level Technical Project Exhibition	POWERSPEC-2K16	17 March 2016
4	One Week FDP programme	Circuit Theory	20-11-17 to 26-11-17
5	One Day Webinar	SCOPE AND OPPORTUNITIES OF WEBSERVICES IN ELECTRICAL DOMAIN	15th June 2020