

Name: Dr. S.Senthilkumar

Designation : Assistant Professor
Department : Electronics & Instrumentation Engineering
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Experience (in years): 14 years 04 months **Teaching: 13 years 05 months**
specify):
Industrial : 10 months

Others(if any,

1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	PhD	2018	Robotics and Automation
2	M.E	2009	Electronics and Instrumentation Engineering
3	M.B.A	2010	General
3	B.E	2006	Process Control and Instrumentation

2. Teaching and Learning:

2.1. Teaching Interests:

- Process Control
- Virtual Instrumentation
- Robotics
- Industrial Instrumentation
- Instrumentation System Design
- Analytical Instrumentation

2.2. Novel Teaching & Learning Techniques adopted:

- Information is correlated to the present trends in the industry
- Discuss with IIT professors and collect the information about the recent trends and deliver to the students.

2.3. Involvement in curriculum updating / Design:

- Collect the information from IIT and NIT professors
- Communicate to industrial people to update the curriculum
- Visit to industries to update the knowledge

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Interested in reviewing the research articles related to area of specialization
- Driving
- Reading books

3.2. CCA/ECA Organized :

3.3. CCA/ECA participated :

3.4. Counseling and Mentoring Activity :

3.5. Committees involved in :

Department level : Publication In charge, NBA Co-Coordinator

Institute Level : Autonomous Vehicle Research Group Lead.

4. Conference / Workshop / Seminar / Guest Lectures :

4.1 Conducted : 22

S.No	Name of the Programme	Title of the Programme	Date
1.	National Conference	Innovative Technologies in Electronics and Computer Networking (NCITECN'17)	04.04.17
2.	IEEE sponsored National level workshop	Recent Trends of Nano Technology in Electronics	08.02.16
3.	Technical Seminar	Nuclear power is the need of the hour	13.08.14
4.	Workshop	Basic Electrical, Electronics and Instrumentation	31.07.10
5.	Workshop	Real Time Applications of PLC and DCS	02.09.10
6.	National Level Technical Symposium	INSGLITZ'10	24.09.10
7.	Seminar	Basics of LabVIEW	10.01.11
8.	Guest Lecture	Stability analysis of Control System	11.01.11
9.	Workshop	Recent trends in Virtual instrumentation using LabVIEW	11.03.11
10.	Workshop	Recent trends in Process Control Automation	20.08.11
11.	National Level Tech. Symposium	INSGLITZ'11	21.09.11
12.	Workshop	Embedded system in Industrial Automation	10.01.12
13.	AICTE Sponsord Seminar	Recent trends in Virtual Instrumentation	21.05.12 & 22.05.12
14.	Workshop	Rapid Development of Embedded system using flow code	30.08.12 & 31.08.12
15.	National Level Tech. Symposium	INSGLITZ'12	28.09.12

16.	Workshop	PLC programming and Applications in Process Control	20.02.13
17.	Value added Course	Lab VIEW- Application to Industrial Automation	25.06.13 & 26.06.13
18.	Alumni Interaction	Over View of BIGDATA	02.09.13
19.	Certification Course	Printed Circuit Board Design & Fabrication Process	28.06.13 & 29.06.13
20.	National Level Tech. Symposium	INSGLITZ'13	06.09.12 & 07.09.12
21.	Guest Lecture	Embedded System Applications to modern Industries	08.03.14
22.	Alumni Interaction	What the Industries require?	08.03.14

4.2 Attended :

Work Shops & Seminars

- Attended One day workshop on “Ethical Hacking”, 3rd Dec 2015, Conducted by iSYSWAY Technologies, Thanjavur.
- Attended One day workshop on “Environmental Pollution and Control”, 21st November 2015, held at KarpagamCollege of Engineering, Coimbatore, Tamilnadu.
- Attended One day workshop on “Applications of GIS in Disaster Management”, 20th October 2012, held at KPR Institute of Engineering and Technology, Coimbatore, Tamilnadu.
- Attended technical seminar on “MEMS/ Nano Technology Integration for Bio-Medical Application”, 24th-25th May2012, held at Muthayammal Engineering College, Rasipuram.
- Attended International Workshop on “Emerging Trends in Technology”, 24th & 25th February 2012 held at Thakur College of Engineering and Technology, Mumbai.
- Attended National Workshop on ‘Industrial Automation’, 7th November 2011 held at Manipal University, Manipal,Karnataka.
- Attended Workshop on ‘RF-Wireless Communication System Design using LabVIEW’ 25th – 26th March 2010, Organized by ICT Academy of Tamilnadu held at Muthayammal Engineering College, Rasipuram, Tamilnadu.
- Attended International Workshop on ‘Development of Technical Education to Meet Millennium Development Goals’ 11th November 2011, Organized by National Institute of Technical Teachers Training and Research (NITTTR) held at Muthayammal Engineering College, Rasipuram, Tamilnadu.
- Attended UGC sponsored short term course on ‘Goal Oriented System Modelling and Identification’ (GOSMI'09), 7th –8th January 2009 held at Annamalai University, Chidambaram.

Title of the webinar	Date	Organized by
BIRAC Entrepreneurship Awareness webinar	28th April 2020 10.30am – 12.00pm	TiE, Delhi & BIRAC, Delhi

Improving research planning & writing skills at technical institute	29th April 2020 11.00am – 12.30pm	Elsevier
Work and Play, Together: Best Practices for Remote Working	30th April 2020 11.30am – 1.00pm	TiE, Delhi
A panel discussion on lock down Period- work life balance	2nd May 2020 5.00pm – 6.30pm	IEEE Hyderabad
Gas insulated substations and their benefits	3rd May 2020 5.30pm – 7.00pm	IEEE Hyderabad
How to fabricate projects in proteus simulation	15th May 2010 02.00pm – 03.00pm	Muthayammal Engg. College, Tamilnadu
Pattern Recognition and its Application	21st May 2020 02.00pm – 03.30pm	CVR College of Engineering
LaTeX - A Scientific Documenting Tool	21st May 2020 04.00pm – 06.00pm	IEEE VNR SB
Introduction to graphical programming using LabVIEW	25st May 2020 03.00pm – 05.00pm	E&I Dept., VNRVJIET
Simulation and Design of PCB in proteus simulator	5th June 2020 10.00am to 12.00pm	SNS College of Technology, Tamilnadu
Wise financial planning for faculty	4th June 2020	Sri Venkateswara College of Engg., Tamilnadu
Art of challenges of writing papers in IEEE transactions	8th June 2020	IEEE Bangalore Section
Teaching and understanding of control systems using open source software	13th June 2020	VNRVJIET
Factory automation using siemens TIA portal	19th June 2020	VNRVJIET
Introduction to patent writing and associated protocol	26th June 2020	VNRVJIET
Data Science & Machine Learning	4th July 2020	EGS Pillay Engg. College, Tamilnadu.
Limitations of linear controllers and introduction to intelligent controllers	6th July 2020	Karpagam college of engineering (Autonomous), Tamilnadu
Art of Teaching	7th July 2020	Gayatri Vidya Parishad College of Engineering, Visakhapatnam
Artificial Intelligence and Image processing	9th & 10th July 2020	EGS Pillay Engg. College, Tamilnadu.
"Embedded and IoT Based Real Time Project Development Using Arduino and MIT App Inventor	10th July 2020	St.Joseph college of Engg. & Tech
An International Webinar on Successful Research Papers: From Concept to Submission	13th July 2020	Kakatiya Institute of Technology and Science, Warangal
online teaching tips and tools	17th July 2020	Leading india.in (Bennett University)

Secure yourself from Cyberbullying	17th July 2020	EGS Pillay Engg. College, Tamilnadu.
Robotics : Connecting Engineering Minds	22nd July 2020	McGraw Hill
Challenges Vs Expectation – Entrepreneurship ecosystem	23rd July 2020	T-Hub Foundation
In House Training on Video Content Development	24th July 2020	VNRVJIET
How to write winnable research proposals	28th July 2020	VNRVJIET
Instrumentation in process industries	29th July 2020	VNRVJIET
PEDAGOGY – Case Based Study Learning	03rd Aug 2020	EGS Pillay Engg. College, Tamilnadu.
Reliability aspects in power system planning and operation	10th Aug 2020	VNRVJIET
Signal Processing And Computational image formation (SPACE)	11th Aug 2020	organized by the IEEE Computational Imaging Technical Committee (CI TC), sponsored by the IEEE Signal Processing Society (SPS), and run as a Michigan State University (MSU)
Climate Change and their Impacts	11th Aug 2020	EGS Pillay Engg. College, Tamilnadu.
Surface Plasmon Resonance based Biosensors	12th Aug 2020	Lakireddy Bali Reddy College of Engineering, Andhra Pradesh
Simulation of electronic projects using proteus software	14th Aug 2020	SSN College of Engineering, Chennai
Simulation of electrical and electronic projects using proteus software	17th Aug 2020	PSG Polytechnic College, Coimbatore, Tamilnadu
Virtual Teaching and OBE Software for Engineering Colleges	20th Aug 2020	Vmedulife software services, Hyderabad

Faculty Development Programme

- Attended Faculty Development Program on “Control Theory and Applications” 29th June to 3rd July 2020, organized by Vignan institute of Technology and Science, Hyderabad
- Attended Faculty Development Program on "Exploring the Nuances of Deep Learning for Research Applications - A Deeper Experience" 13th – 17th July 2020, organized by Karunya Institute of Technology and Sciences, Tamilnadu
- Attended Faculty Development Program on “Artificial Intelligence and Machine learning” 13th – 17th July 2020 organized by VNR Vignana Jyothi Institute of engineering and technology, Hyderabad.
- Attended Faculty Development Program on “Recent advances in renewable energy and energy efficiency technologies”, 21st – 25th July 2020, organized by Mahatma Gandhi Institute of technology, Hyderabad.
- Attended AICTE Sponsored Faculty Development Program on “Cyber physical systems design technologies and applications”, 03rd – 8th Aug 2020, organized by Kalasalingam Academy of Research and Education, Tamilnadu
- Attended Faculty Development Program on “3D printing for industrial and biomedical applications” 2nd – 5th December 2019, held at VNR Vignana Jyothi Institute of engineering and technology, Hyderabad.
- Attended Faculty Development Program on “Robotics and Artificial Intelligence” 24th – 28th June 2019, held at VNR Vignana Jyothi Institute of engineering and technology, Hyderabad.
- Attended Staff Development Program on “Multi-Objective optimization techniques for manufacturing processes” 16th – 28th April 2012, held at Muthayammal Engineering College, Rasipuram.
- Attended Staff Development Program on ‘LabVIEW with hands on Training’ 11th – 15th December 2010 Conducted by ICT Academy of Tamilnadu in Association with National Instruments held at Saveetha Engineering College, Chennai.
- Attended Staff Development Program on ‘Emotional Intelligence-A Need for Faculty Members’ 10th – 22nd May 2010, held at Muthayammal Engineering College, Rasipuram.

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures : 02

- Delivered lecture in National Level One-day Workshop on ‘ROBOTICS IN INDUSTRIAL AUTOMATION’ held at Karpagam College of Engineering, Coimbatore on 20th November 2015.
- Delivered lecture on ‘Impact of Automation Technology In Industrialized Electrical Building System’ Er.Perumal Manimekalai College of Engineering, Tamilnadu.

5.2. Articles / Chapters published in Books : Nil

5.3. Books published as single author or as editor : Nil

5.4. Projects Guided :

- a) UG : 22
- b) PG : 12

5.5. Research Interests : Robotics and Automation, Virtual Instrumentation, Process Control

5.6. Ph.D students : Nil

a) **Enrolled :** Nil

b) **Submitted :** Nil

c) **Awarded :** Nil

5.7. Papers published in reviewed journals:

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Citation Index	National/ International
1	Adaptive Control Based Electric Furnace Temperature Control Using Simulink	Turkish Online Journal of Qualitative Inquiry (TOJQI)	1309-6591		
2	Analysis and Implementation of DCS System in Bottle Filling Plant Using MATLAB	Journal of Engineering Sciences	0022-1945.		International
3	Analysis of Locomotion Robot in Non-Linear Surface using Intelligent Controller	Journal of Interdisciplinary Cycle Research	0022-1945		International
4	Performance analysis of DC-DC converter for robotic system	International Journal of Electrical, Electronics and Data Communication			
5	Design of MIMO ball and beam system using PID controller in Automation	Journal of Emerging Technologies and Innovative Research, Volume 5, Issue 11, pp.217-230, November 2018	ISSN 2349-5162		International
6	Analysis of tunable Fabry-Perot filter in micro electronics using squeezed-film damping method	Asian Journal of Research in social sciences and humanities, Volume 6, issue 09, pp 1296-1312, September 2016	ISSN 2249-7315		International
7	Analysis of Virtual Robot Movements for Performance Improvements in Personal Communication	Wireless Personal Communication, Springer. Volume 90, Number 02, pp 595-608, November 2015,	ISSN: 0929-6212 (Print) 1572-834X (Online)		International
8	Improving the Leg Movement in Locomotion	International Journal of Advanced	ISSN 0973-		International

	Hexapod Robot for Industrial Automation	Engineering Research. Volume 10, Number 20 (2015) pp 41377-41387	4562 (Print) , ISSN 1087-1090 (Online)		
9	Analysis of Locomotion Versatile Hexapod Robot System For Industrial Automation	International Journal of Engineering Research in Electronics and Communication Engineering, Vol 2, Issue 12, December 2015, pp-19-22	ISSN : 2394-6849		International
10.	A Novel dSPACE Based Identification and Control of DC-DC Boost Converter for open loop response using Neuro Controller	CIIT International Journal of Artificial Intelligent Systems and Machine Learning, Vol.3, No.4, April 2011, pp. 242-246	ISSN Number 0974-9667.		International
11.	Fuzzy Logic based Robot movement control in Industrial Automation', CIIT International Journal of Fuzzy Systems	CIIT International Journal of Fuzzy Systems, Vol.4, No.7, July 2012, pp.264-267	ISSN Number 0974-9721		International
12.	Performance Analysis of Six Leg Locomotion Robot Movement Control',	International Journal of Emerging Technology and Advanced Engineering, Volume 3, Issue 2, Feb 2013, pp. 522-526	ISSN Number 2250-2459.		International
13.	Analysis of Squeezed-Film Damping in Tunable Fabry-Perot Filter	International Journal of Research in Electronics and Computer Engineering, Vol.2 Issue 4 Oct-Dec, 2014. Pp.104-108	ISSN: 2393-9028 (PRINT) ISSN: 2348-2281 (ONLINE).		International
14.	Design of MIMO ball and beam system using PID controller in Automation	Journal of Emerging Technologies and Innovative Research, Volume 5, Issue 11, pp.217-230, November 2018,	ISSN 2349-5162		International
15.	PERFORMANCE ANALYSIS OF DC-DC CONVERTER FOR ROBOTIC SYSTEM	Journal of Interdisciplinary Cycle Research, Volume 12, Issue 07,	ISSN NO: 0022-1945		International

		pp. 494-502, July 2020			
16.	Analysis of Locomotion Robot in Non Linear Surface using Intelligent Controller	International Journal of Electrical, Electronics and Data Communication, Volume-8, Issue-2, pp.22-25 Feb.-2020,	ISSN(p): 2320-2084, ISSN(e): 2321-2950		International
17.	Analysis and Implementation of DCS System in Bottle Filling Plant Using MATLAB	Journal of Engineering Sciences (JES), Vol 11, Issue 7, pp.617-622, July 2020,	ISSN NO: 0377-9254.		International

5.8. Papers presented at National / International Conferences :

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Design and Analysis Of Water Surface Cleaning Robot Using DTMF Technology	International Conference on Artificial intelligence and machine learning enabled 5g networks : Recent advances and challenges (ICAMW-2021)"	International	16th & 17th December 2021
2	Analysis of DCS implementation in DC-DC Boost Converter for a Robotic System	IEEE International conference on "Smart Systems and Inventive Technology" [ICSSIT 2020]	International	20th & 21th Aug 2020.
3	Performance analysis of DC-DC converter for robotic system	International Conference on Smart technology, Electrical and Electronics Engineering (ICSEEE '2019)	International	24th Nov 2019.
4	Analysis of Increasing Energy Conversion Efficiency of Solar Cells Using Quantum Dots	International Conference on Modelling, Simulation and Control (ICMSC '2015) held at Karpagam College of Engineering, Coimbatore, Tamilnadu	International	15th & 16th Oct 2015
5	Improved Security in Smart Cards Using Palm Vein Biometric Crypto System	International Conference on Modelling, Simulation and Control (ICMSC '2015) held at Karpagam College of Engineering, Coimbatore	International	15th & 16th Oct 2015
6	Simulation analysis of torsional vibration analysis and control in an engine using LabVIEW.	International Conference on Electrical, Electronics and Computer Engineering, Tiruchengode, Tamilnadu,	International	11th & 12th March 2015.
7	Performance Analysis Of Multitank Monitoring And	International Conference on Electrical, Electronics and	International	11th & 12th

	Control System For Agri-Management System Using Labview	Computer Engineering , Tiruchengode, Tamilnadu,		March 2015.
8	Analysis of Locomotion Versatile Hexapod Robot System using Neuro Controller	International Conference on Electronics and Power Engineering held at Dubai, UAE	International	17th & 18th January 2015.
9	Analysis of Hexapod Robot Movement Control in Various Parameters	International Conference on Interdisciplinary Research and Development held at IMPACT Exhibition Center, Muang Thong Thani, Bangkok Metro, Thailand	International	May 31st 2012.
10	Design and Analysis of Robot Movement Control Using Intelligent Controller	International Conference on Computing and Control Engineering, Dr.M.G.R Educational and Research Institute University, Chennai	International	12th & 13th April 2012.
11	Performance and Analysis of MIMO Ball and Beam System using Intelligent Controller	International Conference on Emerging Trends in Technology (ICWET 2012) held at Thakur College of Engineering and Technology, Mumbai,	International	February 24th & 25th 2012
12	Performance Analysis of DC-DC Boost Converter using Intelligent Controller	International Conference on International Conference on Computer and Automation Engineering (ICCAE 2012) held at Mumbai	International	January 14th – 15th , 2012.
13	Design of fuzzy controller for MIMO Ball and Beam system using LabVIEW	International Conference on Control Instrumentation System Conference (CISCON 2011), Manipal, Karnataka	International	November 03rd – 06th ,2011
14	A Novel dSPACE based Identification and control of DC-DC Boost Converter Using Neural Networks	International Conference on Smart Technologies for Materials, Communication, Controls, Computing and Energy, (ICST 2011) held at VelTech Dr.RR & Dr. SR Technical University, Chennai,Tamilnadu,	International	January 05th -07th , 2011
15	Hybrid railway power conditioner with harmonic compensation for highspeed railway	National Conference on “Innovative technologies in Electronics and Computer Networking” NCITECN '17, Kumbakonam	National	04th April 2017.
16	Enhancing the performance of high speed adder circuits by using 180nm CMOS technology	National Conference on “Innovative technologies in Electronics and Computer Networking” NCITECN '17, Kumbakonam	National	04th April 2017.

17	Continuous non invasive technique for measuring blood pressure using impedance plethysmography	National Conference on "Innovative technologies in Electronics and Computer Networking" NCITECN '17, Kumbakonam	National	04th April 2017.
18	Investigation of Drone movement using hand gesture in Surveillance	National Conference on "Innovative technologies in Electronics and Computer Networking" NCITECN '17, Kumbakonam	National	04th April 2017.
19	Analysis of Brain Controlled Artificial Legs For Handicapped Peoples	National Conference on "Trends in Engineering Applications and Management" NCTEAM '15, Erode	National	14th March 2015.
20	A Reduced-Bit Multiplication Algorithm For Digital Arithmetic Based on Vedic Mathematics	National Conference on "Trends in Engineering Applications and Management" NCTEAM '15, Erode	National	14th March 2015.
21	Design of Intelligent Traffic Light Controller Using Embedded System	National Conference on Recent Trends in Communication, Control & Computing Applications, Trichy	National	9th March 2015.
22	Development of Scientific Submarine Cable Network For Next Generation	National Conference on Advances in Management, Engineering and Technology (NCAMET'15), Tirupur	National	6th March 2015
23	Analysis of Ultra-Low Voltage Nano Electronics Powered Directly From A Tree	National Conference on Emerging Trends In Electrical Engineering Applications (NCETEEA 2015), Coimbatore	National	4th March 2015
24	Analysis of Semiconductor Nano Crystals To Photovoltaic Energy Conversion Devices.	National Conference on Sustainable Trends in Energy and Environmental resources (STEER'15), Chennai	National	27th & 28th February 2015.
25	Wireless Charging of Handhelds Using Radio Frequency From Non Conventional Energy Resources	National Conference on Emerging Trends in computer communication and informatics (ETCCI'15), Coimbatore	National	23rd & 24th February 2015.
26	Design and Analysis of Versatile Robot system in Nonlinear Surface' has been presented in National Conference on Innovative	National Conference on Innovative Technologies in Mechanical Engineering (ITME 2013), Rasipuram	National	5th April 2013

	Technologies in Mechanical Engineering (ITME 2013)			
27	Design of Air pollution Monitoring system using Wireless Sensor Network	National Conference on Emerging Technologies (MKCE-CONFLUENCE'13), Karur	National	27th February 2013
28	Multitank Monitoring and Control System for Automated Agri-Management System	National Conference on Recent Trends in Communication, Computation and VLSI, TIRUPUR	National	21st February 2013.
29	Applications of Hexapod Robot for Industrial Automation	National Conference on Recent Trends in Communication, Computation and VLSI, TIRUPUR	National	21st February 2013.
30	Enrichment of Palmprint Identification Rate Using Multispectral Palmprint Images	National Conference on Recent Trends in Communication, Computation and VLSI, TIRUPUR	National	21st February 2013.
31	LabVIEW based Air Heater Control using PID Controller	National Conference on Control, Communication and System Engineering (CCSE 2012), Coimbatore	National	14th September 2012.
32	A Synchronous Remote accessing control using LabVIEW	National Conference on Recent Trends in Electronics, Instrumentation and Automation (RTEIA 2012), Erode	National	14th March 2012.
33	Performance Analysis of DC-DC Buck converter using Hysteresis Control	National Conference on Emerging Technologies in Electronics and computer Engineering, Erode	National	9th & 10th March 2012
34	Performance Analysis of DC-DC Buck converter using Sliding Mode Control	National Conference on Emerging Technologies (MKCE-CONFLUENCE'12), Karur	National	25th February 2012.
35	Wireless Based Accident Preventing System	National Conference on Communication Convergence (N3C-2K11), Kancheepuram	National	20th August 2011.

5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed
	-	-	-	-	-

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed
	-	-	-	-	-

6. Awards / Honors received:

- Received Best Educator award from International Institute of Organized Research (I2OR)

7. Motto:

To improve research activities, leadership quality and become a role model for others.