



Dr.S.Velmurugan, M.E., PhD.

Phone: +91-9500366873

E-Mail: velmuruganksrce@gmail.com

Anna University Supervisor Recognition Ref No: **3440011**

ACADEMIC QUALIFICATIONS

Ph.D.	Information and Communication Engineering, Anna University, Chennai
(2014- 2019)	Specialization: VLSI and Biomedical Signal Processing
M.E – VLSI Design	Title: A Robust Analysis of Data Signal Processing in ECG using Gabor Wavelet Transform and Amplitude Zone Time Epoch Coding K.S.Rangasamy College of Technology, Tiruchengode, Namakkal-DT. 637 215 Affiliated to Anna University Chennai Year: June 2011 – May 2013
B.E	Electronics and Instrumentation Engineering (EIE) Mahendra Engineering College, Mallasamudram, Namakkal-DT. Affiliated to Anna University, Coimbatore Year: July 2007 –April 2011

EMPLOYMENT HISTORY

Since 27th January to till date as Assistant Professor Department of Electronics and communication Engineering at Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology (Deemed to be University) Avadi, Chennai

Since 29th July 2019 to 25th January 2020 as Assistant Professor in Department of Electronics and communication Engineering at Vel Tech (Owned by RS Trust), Avadi, Chennai.

Since 5th June, 2013 to 25th July, 2019 Assistant Professor in Department of Electronics and Communication Engineering, K.S.R. College of Engineering (Autonomous), Tiruchengode, Affiliated to Anna University Chennai

DUTIES AND RESPONSIBILITIES

- Innovation cell Coordinator, Vel Tech(Owned by RS Trust). Since September 2019 to January 2020.
- Deputy Placement officer, K.S.R. College of Engineering. Since May 2015 to June 2018.
- Placement Coordinator, K.S.R.College of Engineering. Since August 2013 to May 2015.

MEMBERSHIPS

- Life member of Indian Society for Technical Education (ISTE),
- Life member of International Society for Research and Development (ISRD)

- Reviewer of International journal- Cognitive System Research (Elsevier)
- Reviewer of International Journal of Control Engineering and Applied Informatics
- Member of international Association of Engineers (IAENG)

PATENT

Title	Patent No/Date of Application/Grant	Status
An Intelligent Automated Vehicular accident prediction and notification system	201941046984 A Date:18/11/2019 Journal number: 48/2019	Published
Group Activity Recognition by Integration and Fusion of individual Multisensory IoT Data	2020102094 Date:23/09/2020 AUS	Granted
3D Printing and Additive Manufacturing Process for Rapid Manufacturing of Customized Bio Implants	2020102205 Date: 05/09/2020 AUS	Granted

FUNDED PROJECTS

Title	Scheme/ Funding agency	Status	Amount
An innovative database management system “ Student Teachers E-Portal System (STEPS) ”	District level e-governance project – Student scheme	Received	10,000
A Non-invasive self-healing Smart Acupressure Device for diabetes Patient	DST-SEED-TIDE	Applied-application under processing	-
Design and Fabrication of Non-invasive glucometer for diabetes mellitus using saliva.	DST- Device Development Scheme	Applied-application under processing	-

JOURNAL PUBLICATIONS

Scopus Author ID- 57211152007

- Saravanan Manavalan , **Velmurugan S** , Bhanupriya P , and Booma Devi P “Exploitation of artificial intelligence for predicting the change in air quality and rain fall accumulation during COVID-19” Energy Sources, Part A: Recovery, Utilization, And Environmental Effects. (October 2020) **Taylor & Francis Group (Scopus, SCI Indexed)**
- L.Raja, **S.Velmurugan**, G.Shanthi, P.Balakrishnan, “A Smart Systems for people with Special Needs and Disabilities in Home Environment”, Journal of Advanced Research in Dynamical and Control Systems, Volume 12. Issue 2, pp.2231 -2241 (May 2020) (**Scopus Indexed**)
- K. Preetha, **S.Velmurugan**, M. Vijayakumar, “Extraction and Grading of Malignant Tumor from Abnormal Mammogram Image using Marker Controlled Watershed Segmentation”, International Journal of Advanced Science and Technology, Vol. 29, No. 5, (2020), pp. 5323 – 5331 (May 2020) (**Scopus Indexed**)
- U.Nilabar Nisha, **S.Velmurugan**, L.Raja, G.Shanthi, “A Survival Study on Data Gathering

And Target Tracking Techniques for Energy Efficient Routing in WSN”, Journal of Critical Reviews, ISSN- 2394-5125, Vol 7, Issue 4, pp.589-594(February 2020) (**Scopus Indexed**)

- **Velmurugan S**, Mahabub Basha A, Vijayakumar M, “Gabor Wavelet multi-linear discriminant analysis for data extraction in ECG signals”, Cluster Computing The Journal of Networks, Software Tools and Applications, Springer, ISSN 1386-7857. Volmume 22 pp.14219-14229 (November 2019)(Scopus and SCI Indexed)
- Vijayakumar, M, **Velmurugan S**, Mohan V, Shanmugapriya P, “ Hybrid Bee Colony and Cuckoo search based centroid initialization for Fuzzy C-Means clustering in biomedical Image Segmentation”, International Journal of Innovative Technology and Exploring Engineering, Blue Eyes Intelligence Engineering & Sciences Publication, ISSN 2278-3075 (July 2019) (**Scopus Indexed**)
- **Velmurugan S**, Mahabub Basha A, “Multiscale Wavelet Transformation and Amplitude Zone Time Epoch Coding for ECG data Extraction and Compression”, Applied Mathematics and Information Sciences, Natural Sciences Publishing, ISSN: 2325-0399, volume 13, issue 1, Pages 63-71 (Jan 2019) (**Scopus Indexed**)
- **Velmurugan S**, Mahabub Basha A, Sivakumar P, Vijayakumar M, “ Performance analysis of Electrocardiogram Data Extraction and Data compression in Healthcare Applications – A Review” Sensor Letters, American Scientific Publishers, Volume 16, Issue 12, pp 901-910 (December 2018) (**Scopus Indexed**)
- **Velmurugan S**, Rajasekaran C.R, “A Reconfigurable On-Chip Multichannel Data Acquisition and processing (DAQP) system with online monitoring using network control module”, International Journal of Computational Intelligence and informatics, Vol. 3: No. 1, April - June 2013
- **Velmurugan S**, Vijay G, Gowri K, Mahabub Basha, A “Detection and Extraction of P Wave and T Wave in ECG to Improve Sensitivity for E -Health Monitoring”, nternational Journal of Communication and Computer Technologies, Volume 04– No. 4 Issue: 02 March 2016 ISSN NUMBER : 2278-9723

NATIONAL & INTERNATIONAL CONFERENCES

- A Reconfigurable On-Chip Multichannel Data Acquisition and Processing (DAQP) system for multichannel signal processing” in the IEEE International conference on Pattern recognition, Informatics and Mobile Engineering (PRIME 2013) at Periyar University, Salem, Tamilnadu, India during 21st and 22nd February 2013.
- An Efficient system for the electrocardiogram data acquisition and analysis using LabVIEW, International conference on Synergistic Evolutions in Engineering ”,4 th& 5th March 2015
- Automation of Greenhouse control system using LabVIEW, National Conference on recent Trends in information and communication Engineerin g”,14th March 2014
- Detection and Extraction of P Wave and T wave in ECE Signals to improve Sensitivity for E -Health monitoring 2nd International Conference on “ Advanced Engineering and Technology for Sustainable Development (ICAETSD2016) on 19th and 20th February 2016 at Karpagam College of Engineering, Coimbatore

CERTIFICATIONS (Self Development)

S.No	Name of the course	Platform
1.	The Arduino Platform and C Programming	Coursera
2.	The Arduino Platform and C Programming	Coursera
3.	Sensors and Sensor Circuit Design	Coursera
4.	Programming for Everybody (Getting Started with Python)	Coursera
5.	AI For Everyone	Coursera
6.	Introduction to the Internet of Things and Embedded Systems	Coursera
7.	LabVIEW Core 1	National Instruments
8.	LabVIEW Core 2	National Instruments
9.	LabVIEW Core 3	National Instruments
10.	LabVIEW Real-time 1	National Instruments
11.	Data Acquisition Using NI-DAQmx and LabVIEW	National Instruments
12.	Ultiboard Basics	National Instruments
13.	Multisim Basics	National Instruments
14.	Introduction to Internet of Things (IoT)	NPTEL
15.	Microprocessor & Micro controller	NPTEL
16.	PLC, SCADA, DCS	Yokogawa

FDP/WEBINARS /SEMINARS/WORKSHOPS

- Participated in one day Webinar on “Block Chain Technology” organized by the Department of Computer Science, Palanisamy College of Arts, Perundurai on 10-07-2020.
- Participated in a Webinar on “Navigation of Satellites for modern Telecommunication” on 11.07.2020, Organized by Department of ECE, Malla Reddy Institute of Technology and Science
- Participated in a Webinar on Renewable Sources of Energy, jointly organized by Department of Electrical and Electronics Engineering, Technology Centre for Renewable Energy, MSAJCE and WePOWER Programme (Supported by World Bank Group on Energy and Extractives), Chennai on 11-07-2020.
- Participated in the National Level Webinar on “Effective Communication” organized by Sree Narayana Guru College of Engineering and Technology on 11.07.2020
- Participated in the Webinar on “Coronavirus: Facts Vs Myths” on 13.07.2020 on account of “World Population Day”, Organized by National Service Scheme (NSS) & Red Ribbon Club(RRC), Sri Sarada College for Women (Autonomous), Salem - 636 016.
- Participated in the National Level Webinar on “Artificial Intelligence - The Futuristic World” organized by PG & Research Dept. of Computer Science and Computer Applications held on 11th July 2020.
- Participated in online Workshop on “Exploring and Analyzing Linked Enterprise Data in Semantic Web” held from 8th to 10th July 2020 in the Department of Computer Science and Engineering, Dayananda Sagar University, Bengaluru.
- Participation in Online Faculty Development Program on “Evolution of IoT and its Real Time Applications” organized by department of CSE, Malla Reddy Institute of Technology and Science, during 13.07.2020 - 17.07.2020.
- Participation in Online Faculty Development Program on “Advanced Data Processing

using ML, ANN & DL” organized by department of CSE, TKR college of Engineering & Technology during 13.07.2020 - 17.07.2020.

- Participated in a Webinar on “Mobile Computing” on 17.07.2020, Organized by Department of CSE, Government of Tamilnadu DOTE, Government Polytechnic College, Nagarcoil.
- Participated in a Webinar on “Recent Trends in AI Robotics and Automation Used in Industrial Applications” on 18.07.2020, Organized by Department of ECE, Malla Reddy Institute of Technology and Science.
- Participated in a Webinar on “AR and VR in Education” on 18.07.2020, Organized by Department of CSE, SNS College of Technology, Coimbatore.
- Participated in a National level Workshop on “Introduction to Web development” on 17th – 19th July 2020, Organized by Department of ECE, Kamala Institute of Technology and Science, Telangana.
- Participated in a Webinar on “Opportunities and Challenges for Artificial Intelligence” on 04.08.2020, Organized by IEEE-Product Safety Engineering Society Madras Chapter.
- Participated in a Webinar on “Verilog HDL in Chip Design Cycle and Importance of Hardware Emulation” on 08.08.2020, Organized by Department of ECE, Malla Reddy Institute of Technology and Science.
- AICTE Sponsored SDP on “Applications of wireless sensor Network in Industry and Consumer Electronics” from 03.06. 2013 to 15.06. 2013 at K.S.R College of Engineering, Tiruchengode.
- AICTE Sponsored SDP on “Computer Networks” from 16th December 2013 to 22nd December 2013 at Kongunadu Engineering College, Thottiyam
- Participated in the 1 day NPTEL workshop conducted on 11th January 2017 by IIT Madras.
- 2 Days national workshop on Image processing for Bio medical Applications held on 12 & 13 June 2015 at Amrita School of Engineering, Coimbatore
- One day workshop on Research Methodology (12.12.2014) at Anna University Chennai.
- Basics of Laboratory Virtual Instrumentation Engineering Workbench (LabVIEW) held on 18.10.2013 & 19.10. 2013 at K.S.R College of Engineering, Tiruchengode
- Workshop on Virtual Instrumentation – LabVIEW held on 10th October 2013 to 15th October 2013 at EASA College of Engineering and Technology, Coimbatore
- ALTERA QUARTUS- II simulator held on 22nd December 2012 at Mahendra Engineering College. Organized by Department of Electronics and Communication Engineering.
- Distributed Control systems (DCS) conducted by YOKOGAWA India limited, held on 16th August 2010 to 20th August 2010, at Mahendra Engineering College.

Thanks & Regards

Dr. S.VELMURUGAN