

Santhosh S

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Academic education and qualification:

Degree/ Examination	Institute/Univ./Board	Year of Passing	Percentage	Remarks
M.Tech (Remote sensing and wireless sensor networks) NAAC-A grade	Amrita Vishwa Vidyapeetham, Coimbatore	June, 2015	72.2	First Class
B.Tech (ECE) (NAAC-A grade and ABET recognized)	SRM University, Chennai.	2012	85.42	First Class with Distinction
HSC(Class 12 th)	SSRM Hs School salem,Tamil nadu State Board.	2008	84.9	First Class
SSLC(Class 10 th)	SSRM Hs School salem,Tamil nadu State Board.	2006	86.6	First Class

Professional work Experience:

Academic Experience:

Working as **Assistant Professor in the department of Electronics and Communication Engineering**, Dhirajlal Gandhi College of Technology, Salem from 1st August 2015 to till date

Industry Experience:

Worked as **Assistant Software Engineer** in **Accenture** from 1st June 2012 to 26th February 2013

- Domain knowledge:
 - DotNet framework

Key Skills:

IT Skills:

- Basics of C and C++, Linux(Ubuntu), HTML, SQL
- Python, Pycharm
- NS2
- Embedded C

Language ability:

- Tamil, English
- Japanese, Hindi, (Madhyama level Prachar Shabha course) (Working knowledge)

Software expertise: ModelSim – VHDL, Keil mu Space, P-Spice, MATLAB – Communication, Image processing, signal processing, Antenna magus, GNU Radio Companion, Celestia, GMAT, AVR Package

Area of Interest: Wimax-IEEE802.16e, Digital Electronics, Image processing, Renewable Energy Source Management, Antenna Design Estimation and Modeling, SVM and other kernel methods, Software Defined Radio, Natural Language Processing

Electronics platform: Arduino, Raspberry Pi, Spark V, Firebird (robotic platform)

DSP Platform: TMS series

Cloud Platform: Microsoft Azure, Amazon AWS

Current learning area: Big Data analysis, Chisel 2.2 (Functional programming hardware constructing software), Deep and Machine Learning

Current learning software tool: NI LabView, Theano, Tensorflow (frameworks)

Publications:

Publication Summary:

Book Chapter	1
Journal Publication	3
International Conference	9
National Conference	4
Scopus Indexed	5

Publication of Chapter in a book:

- **S. Santhosh**, S. J. Arunselvan, S. H. Aazam, R. Gandhiraj, and K. P. Soman, “**Performance Analysis of Microstrip Antenna Using GNU Radio with USRP N210**,” in Computational Intelligence in Data Mining - Volume 3, vol. 33, L. C. Jain, H. S. Behera, J. K. Mandal, and D. P. Mohapatra, Eds. New Delhi: Springer India, 2015, pp. 239–249. [DOI: 10.1007/978-81-322-2202-6_21], [Scopus Indexed]

Journal Publication:

- Santhosh S, Sumathi M, “**Theoretical Investigation of Daylight span in India**” Journal of Chemical and Pharmaceutical Sciences (JCHPS), ISSN: 0974-2115, Volume 9, Issue 1, published in January – March 2016 [Scopus Indexed]
- Sumit Kumar Banerjee, S Sridevi, **Santhosh S**, “**Signal Processing Embedded Fourier Transform**” Mathematical Sciences International Research Journal, ISSN 2278 – 8697 and ISBN 978-93-84124-53-3, Volume 4, Issue 2 2015
- Petrishia.A, **Santhosh. S**, Sankar. S. V, Sharath. R, and Rajan babu.R, "A Novel Approach to Non-invasive way of Treating Skin Cancer using Dipole Fed Corner Reflector Antenna with Sub Nano Second Electric Pulse", Journal of Medical and Bioengineering, vol. 2, no. 2, pp.142-146, 2013. doi: 10.12720/jomb.2.2.142-146

International conference – Published:

- **Santhosh S**, Bhuvanewari N, Naveen kumar S, Harisundar, “**Regeneration of a part of an image using cornnet in aerial photography**”, Poster presentation in World Geospatial forum, Hyderabad, January 2017 (accepted for presentation)
- B.Mohanaruban, A.P.Jayamurugaraja, **S.Santhosh**, M.Karthick, “**Portable 3-D Printing Fused Deposition Modelling**”, e-TIME 2016, Vidya Vikas Engineering Institute of Engineering and Technology on April 12, 2016
- Pavithra M, Nithya S C, Premalatha S, **Santhosh S**, Sumathi M, “**online weather monitoring system using IOT**”, 1st International Conference on Energy, Environment and Engineering, Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India, March, 2016
- SoundarRajan M K, Yamuna Raani M, **Santhosh S**, Sumathi M, “**NOAA Satellite environmental information receiving cum decoding station using SDR**”, 1st International Conference on Energy, Environment and Engineering, Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India, March, 2016
- SoundarRajan M K, Yamuna Raani M, **Santhosh S**, Sumathi M, “**statistical features constructed speaker verification system**”, 1st International Conference on Energy, Environment and Engineering, Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India, March, 2016
- Pavithra M, Nithya S C, Premalatha S, **Santhosh S**, Sumathi M, “**Environment supported transport system using IoT**”, 1st International Conference on Energy, Environment and Engineering, Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India, March, 2016

- **Santhosh S**, Arunselvan S J, Aazam S H, Gandhiraj R, "**Multicast WebSDR implementation using RTL-SDR**", 2nd IEEE International Conference on Innovations in Information, Embedded and Communication Systems, Department of ETE, Karpagam College of Engineering, Coimbatore, Tamil Nadu, India, 19-20 March 2015. (**Scopus Indexed**)
- **Santhosh S**, Kokila, M., KaviNandhini, M., Geetha, P., Soman, K. P, "**Establishment of pre-processing station for denoising NOAA satellite image using Legendre Fenchel transformation method**", 2nd IEEE International Conference on Innovations in Information, Embedded and Communication Systems, Department of ETE, Karpagam College of Engineering, Coimbatore, Tamil Nadu, India, 19-20 March 2015. (**Scopus Indexed**)
- **Santhosh, S.**, Abinaya, N., Rashmi, G., Sowmya, V., Soman, K. P "**A novel approach for denoising coloured remote sensing image using legendre fenchel transformation**" IEEE International Conference on Recent Trends in Information Technology, Department of IT, Madras Institute of Technology, DOI: 10.1109/ICRTIT.2014.6996142, ISBN: 978-147994989-2, (**Scopus Indexed**)

National Conference:

- M.Karthick, A.P.Jayamurugaraja, **S.Santhosh**, "**Dual Band Characteristics on Rectangular and Circular Shape Microstrip Patch**", *URSI RCRS 2017*, organized by Indian Space Research Organization, URSI, NARL, Indian National Science Academy, Tripathi, from 1-4th March, 2017 (accepted for publication)
- M.Karthick, A.P.Jayamurugaraja, **S.Santhosh**, "**An Intelligent IRNSS Navigation System Based on Internet of Things (IoT) Platform**", *Lamsys-2016*, organized by Indian Space Research Organization (SHAR SDSC), Sriharikota from June 24, 2016 to June 25, 2016
- Karthick M, **Santhosh S**, "**Congestion control mechanisms for High speed networks in Wireless CDMA**" *1st National conference on Emerging trends in communication systems (NCETCS-2016*, Dhirajlal Gandhi College of Technology on 2nd April 2016
- **Santhosh, S.**, Sharath, R., Sankar, S. V., & Sankarapandiammal, "**Service Oriented IP Core Frame Work for WiMax IEEE 802.16e**", ETECE, Maha College of Engineering, Salem on 2011

Credentials as Assistant Professor:

Subjects handled:

- **Digital Signal Processing (IT6502)** – Third year B.E Computer Science and Engineering with **96.6% as the pass** Percentage in Apr-May 2016, Anna University Examination
- **Advanced Digital Signal Processing (EC 6002)** – Third year B.E Electronics and Communication Engineering with **94.74 % as the pass** percentage in Apr-May 2016, Anna University Examination
- **Microprocessor and Microcontroller (EC6504)** – Third year B.E Computer Science and Engineering with **93.6% as the pass** Percentage in Apr-May 2016, Anna University Examination
- **Advanced Digital Signal Processing (AP 7101)** – First year M.E Communication Systems with **100 % as the pass** percentage in Nov-Dec 2015, Anna University Examination
- **Digital Signal Processing (CS 2403)** – Final year B.E Computer Science and Engineering with **86.5% as the pass** Percentage in Nov-Dec 2015, Anna University Examination

Laboratories handled:

- **Digital Signal Processing Laboratory (EC 2306)** – Third year B.E, Electronics and Communication Engineering in Nov-Dec 2016
- **Computer Networks Laboratory (EC 6611)** – Third year B.E, Electronics and Communication Engineering in Apr-May 2016
- **Digital Signal Processing Laboratory (EC 2306)** – Third year B.E, Electronics and Communication Engineering Apr-May 2016
- **Microprocessors and Microcontrollers Laboratory (EC 2308)** - Third year B.E, Electronics and Communication Engineering in Nov-Dec 2015

Students Projects Guided:

- Smart water distribution system in Municipalities using IoT for the team of students in 2015
- In association with Mr. Thirumoorthy Vice President of Bahwan Cyber Tek guided a project titled Self-Supported and Inimitable Model Deployment on Opinion Generation for Tamil Political Reviews – SentiTAM – Pol from which **they got intern in the same company and one is working in buddihealth, Chennai**

Pedagogy improvement:

- De-Mystifying electronics system design by Prof. Jayaraman, ICET, Pedagogy solutions
- Improvement of Class eco-system by Ms. Vinola, Worldwide Education

Seminar:

- PALS Introductory Pgm- Need for change in Technical Education
- PALS-Signal Processing got to know about Angstrom transform

E-vantra Robotics lab establishment:

As a part of IIT Bombay and MHRD's NMEICT established e Yantra robotics lab in the institute.

Following are the credentials in the lab establishment:

- **Grade "A"** in Task Based Training (TBT) which is mandatory for the lab establishment
- Sponsorship of robotic kits by IIT, Bombay (**3kits**)
- Received cash prize of Rs. 6000 (**Each Rs.1500**)
- **One among top 6 teams** in India.(TBT Challenge-2016)
- Invited as **special invites** for their Symposium eYSI 2017

Workshop:

- Introduction to robotics, IIT-Bombay, for the lab establishment GRD Coimbatore. (2 Days)
- Internet of Things-Coursera online
- Learn How to Learn-Coursera online

Visits:

- IoTNext 2016 conclave, Bangalore
- Radio Astronomy Center, Ooty

NSDC/PMKVY Centre for ECE:

Received the approval for the setup of skill development centre **on training Settop Box Installation and Servicing** in the institute in 2016

Entrepreneurship Development and Technology Incubation Cell:

- **Chief coordinator** for promoting students activities in the institution
- **Faculty mentor** in National Entrepreneurship Challenge **Intermediate track** where **students team secured one among top 15 teams** in 2016 organized by IIT Bombay
- **Faculty mentor** in National Entrepreneurship Challenge **basic track** where students **team secured 9th** Position in 2016 organized by IIT Bombay
- **Staff coordinator in 3 days Entrepreneurship Awareness** program in the college **sponsored by NSTEDB**
- Conducted a day orientation program of National Entrepreneurship Network (NEN) in the college
- Organized several events to promote entrepreneurship eco system in the institute and to nurture it among students

Faculty mentor in the following student start-ups

- Spunks – Terrace gardening
- Lollipop Note Books – Low cost note book

Fund Granted

- **A sum of 9, 20, 000** was granted towards the **scheme Pradhan Mantri Yuva Yojana**

MoU signed

- **National Entrepreneurship Network (NEN)** an organization of Wadhani Foundation
- The institution is the **partner institute of EDIT**

Seminars attended

- Export import opportunity in India by MSME, Sona College of Technology, Salem
- Ozhimayam-Periyar University, Salem(1 Day)
- Personal Effectiveness to organizational Excellence, Knowledge Business School, Salem. (1 Day)
- Salem 150 – Grand Estancia – to know the opportunities in Salem
- PALS-CEDI-NITT-Sonata Software LIBA Program on Entrepreneurship for start-up funding

Visits

- E-Summit IIT Bombay – Entrepreneurship Meet

Industry Institute Interaction:

- Conversing with "Dataval Analytics", Bangalore (Sam Pitroda's company) Contact Person - Mr.Shashikiran, Senior Manager

- Closely associated with Mr. Sudersun, Chief Scientist, Buddihealth, Chennai on following tasks
 - Working with Theano, Tensorflow framework for Corrnnet implementation
 - Creation of parallel speech corpus
 - Invited for campus recruitment and they have recruited 5 students from the institution
- Conversing with Mr. Senthil Murugan, Founder, Unilogic Technologies, Coimbatore

Workshops delivered:

- Conducted a day workshop on robotics during ECE symposium, Abhigyan, 2016
- Delivered a technical presentation on Matlab for DSP in association with Enthu Technologies, Coimbatore
- Delivered a day training on LATEX to the faculty of the department in 2015

Other activities taken part:

- Actively involved in the establishment of Technology center-Tech Innova in the Schools
- One among the coordinators in the establishment of Centre for IEEE Blended Learning in VLSI in 2016
- TCS – TAP Programme SPOC: As a Single Point of Contact (ECE), coordinated all the activities in 2016
- Trained students on Scratch programming during Bridge course 2016
- Documented AICTE-CII award report for the departments ECE, EEE, Mechanical in 2016
- Established satellite communication center in the institute using SDR in 2015
- Events organized-Digital India Week celebrations in 2015
- Placement trainer for ECE students on Electric Circuits, C

Responsibilities held:

- EDTIC Chief coordinator
- Department (ECE) research coordinator
- Abhigyan Symposium (ECE) coordinator
- IIIPS-Coordinator
- NIRF coordinator –ECE Dept
- Student Project Contest In-charge-ECE dept
- Class advisor
- Paper review member in a National Conference on Trends in Communication Systems (2016) in the Institute
- Internal project review member for the dissertation for Electronics and Communication Engineering students

Credentials as Associate Software Engineer:

- Best team in Head Start Foundation program (HSPF) and awarded with Parker pen

Credentials during Graduate and Post-graduate Programme:

Activities and Interests

Projects

- Project titled “Assessing solar potential using Sun shine duration and modeling Pyranometer App” as a part of M.Tech final year project in 2015
- Project titled “Performance Analysis of Microstrip Antenna Using GNU Radio with USRP N210” as a part of term assignment in Software Defined Radio Course in 2015
- Project titled “Development of WebSDR server at Amrita Vishwa Vidyapeetham” as a part of term assignment in Software Defined Radio Course in 2015
- Project titled “Skin Tone Based Secret data hiding in an Image” done during my final year Under Graduate degree under Image Processing domain in 2012
- Project titled “A Novel Approach to Non-invasive way of Treating Skin Cancer using Dipole Fed Corner Reflector Antenna with Sub Nano Second Electric Pulse” at my own interest done during 3rd year of my Under Graduate Degree in 2011

GATE qualified

- Qualified in GATE 2013

Workshops\ Trainings participated

- Trained at Indian Institute of Remote Sensing’s Off – Campus Outreach Certification Program on “Application of Remote Sensing and GIS for Natural Resources” from 27.01.2015 to 20.04.2015

- Trained at Indian Institute of Remote Sensing's Off – Campus Outreach Certification Program on “**RemoteSensing, Geographical Information System and Global Navigation Satellite System**” from 05.08.2013 to 12.11.2013
- Ministry of Earth Sciences (Govt. of India, New Delhi) Sponsored 3 days National Level Workshop on “**Geoinformatics applications in disaster management**” on during 25-27 February, 2015 at Sri Shakthi Institute of Engineering and Technology, L&T By-Pass, Chinniyampalayam, Coimbatore-641062, Tamilnadu
- Global Aero-sports and Indian Space Station organized a two days' workshop on “**CAN-SAT building**” during 25-26 April, 2015 at Center for Excellence in Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Coimbatore, Tamilnadu

Workshop organized

- Organized in National workshop on “**Advanced Signal and Image Processing (ASIP)**” from June 26 to 30, 2014, Organized by Center for Excellence in Computational Engineering and Networking, Amrita Vishwa Vidyapeetham University, Coimbatore
- Actively Organized in 4 days workshop titled “**Advanced Optimization and Deep Learning Applications**” organized by Center for Excellence in Computational Engineering and Networking, Amrita Vishwa Vidyapeetham University, Coimbatore on January 30th 2014 to February 2nd 2014
- Workshop on “**Learning programming through MIT Scratch, Music and fractals**” was conducted by Center for Excellence in Computational Engineering and Networking, Amrita Vishwa Vidyapeetham University, Coimbatore on 31.08.2013
- A workshop on “**Demystifying Signal Processing in two days**” was organized by Center for Excellence in Computational Engineering and Networking, Amrita Vishwa Vidyapeetham University, Coimbatore from 24 to 25 August 2013
- Organized in 3 days workshop titled “**Arduino and its applications**” organized by Center for Excellence in Computational Engineering and Networking, Amrita Vishwa Vidyapeetham University, Coimbatore on August 30th 2013 to 2nd September 2013

In plant Training during my under graduate

Name of the concern	No. of days	Brief about the training
BSNL Salem zone	5	MDF, FOC, Mobile switch.
Doordarshan, Salem zone	5	Television broad casting
Chennai Airport	3	CNS
Dalmia Magnesite corp, Ltd, Salem	6	PLC control system, Magnesite related products manufacturing.
Salem Steel Plant (SSP)	6	Entire function of SSP
Burn std Ltd, Salem	5	Magnesia Brick production

Leader ship/Team work

- During my Post Graduate Degree I was a part of **organising committee** in the International Conference – **AICADD** hosted by Computational Chemistry Group of CEN, Amrita Vishwa Vidyapeetham University
- **Part of organizing committee in International Conference and National symposium** hosted by Delta association of ECE Department, SRM University during my Under Graduate Degree
- Actively engaged as **Event Manager in State Cultural meet** – Euphoria 2k14 held at SRM University
- **Currently coordinating my School alumni**
- Represented school students as **Head boy (SPL)** at various inter and intra school competitions

Extra – curricular

- **Consistent winner in skit/mime** at State and intra college cultural fest during my Under Graduate degree
- **Consistent winner** of Speech, Essay writing, Running commentary, Quotes writing Conducted by “**Kalai Ilakkiya Kazhakam**” of Tamil Nadu government during my Class 11th and 12th
- Participated in TV Debate shows (**Neeya Nana, Makkal Arangam**)

Society Service

- As a part of Mission Zero Failure of Amrita Vishwa Vidyapeetham, Served near by village for 8+ hours to achieve zero failures in class 10th and class 12th board examinations

(Signatute)

Santhosh