


Faculty Profile

A1	Personal Details	
R.SHANMUGA SUNDARAM, M.E., (Ph.D.)		
Assistant Professor		
Department of Electronics and Communication Engineering		
Knowledge Institute of Technology		
Mobile No:09751661542 ,09047336035		
E Mail ID: rsece@kiot.ac.in		

A2	Areas of Interest	Digital Image Processing. Digital signal processing
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A3	Subject Taught	
Signals and System		
Digital signal processing		
Digital Image processing		
Satellite Communication		
Analog and Digital communication		
Electromagnetic Fields		
Mobile Computing		

A4	Academic Background			
Degree	Specialization	Name of the Institute	University	Month and Year of Passing
Ph.D.	Digital Image Processing	Knowledge Institute of Technology, Salem	Anna University	Pursuing
M.E.	Communication systems	Anna university of Technology, Coimbatore	Anna University	2010
B.E.	Electrical and Communication Engineering	Muthayammal Engineering college, Rasipuram	Anna University	2007

A5		Work Experience as on Jun 2019					
Knowledge Institute of Technology, Salem		Assistant Professor		June 2010		Present	
Government College of Engineering, Salem		Part time Lecturer		October2007		August 2008	
Total Experience	13 Years	Teaching	13 Years	Research	12 Years	Administration	-

A6		Research Publications				
Total Number of Publications		International Journal	National Journal	International Conference	National Conference	Total
		13	2	19	4	32
Publications (Journals)						
1.	Published a paper on “IOT Based Child System in Pen Borer-Well Using MSP430” on International journal of Innovation Research in Computer and Communication Engineering November 2021,Vol no:9,Issue:11					
1.	Published a paper on “Plant Disease Detection in Agriculture Automation” on International journal for scientific research & Development Arpil 2020,Vol no:8,Issue:3					
2.	Published a paper on “Vittles Inspection using Image processing and IOT” on International journal for scientific research & Development Arpil 2020,Vol no:8,Issue:2					
3.	The research paper entitled “Enhancement Of Satellite Image Using Hierarchical Histogram Equalization Histogram”in “Australian Journal of Basic and Applied Sciences” Volume 10(12), Page No. 147-154, 2016(Annexure-II)					
4.	“Urban Sprawl Mapping And Monitoring Using GIS And Remote Sensing – Salem city, Tamilnadu”, International Journal of Advanced Research in Management Architecture Technology & Engineering(IJARMATE), Vol 2, No.9, March 2016,pp.347-351					
5.	“Mapping &Analyzing Water Resources In Salem Using GIS and Remote Sensing”,on International Journal of Advanced Research in Management Architecture Technology & Engineering(IJARMATE), Vol 2, No.9, March 2016 pp 290-296					
6.	“Efficient Removal of impulse noise in images DTBDM”, on CIIT’S journal on vol3, No:6, pp no.172-177. (2014)					
7.	“Smart Traffic Flow Control using MSP430” Accepted for Publication in i-manager’s Journal on Embedded System. (2015)					
8.	“Smart Traffic Flow Control using MSP430” Accepted for Publication in International Journal of Research script. (2015)					

9.	"Diminishing of Noise in Mobile Contiguous", International Journal of Engineering Research and Technology, IJERT, Vol.3, Issue 16, PP.137-140. (2015)
10.	"Denoising of Speech Signal for Smart Telephonic Proximity", International Journal of Innovative Research in Science, Engineering and Technology, IJIRSET, ISSN (online); 2319-8753, ISSN (print): 2347-6710, Vol-4, Issue 6, pp.717-723.(2015)
11.	"Automobile security system using Gsm" by R.shanmugasundaram,M.ramesh,s.Sampathkumar,M.Bhuvaneshwaran,2013,(IJEST)
12.	"Blind Computation of a Signal Using SDR" by Shanmugasundaram, P.Manigandan,2012.(IJEST).
Publications (International Conferences)	
1.	'Study of Salem City Resource Management Using-Means Clustering' IEEE International Conference on Emerging Devices and Smart Systems (ICEDSS),PP.79-83.
2.	'Urban sprawl classification analysis using image processing technique in geo-information system'IEEE Inter National Conference on Emerging Devices and Smart Systems (ICEDSS),PP.192-196.
3.	"Removal of Fixed Value Impulse Noise using SEPD", on International Conference on Engineering Technology and Science (ICETS'14), pp no: 55-64. (2014)
4.	"Efficient Removal of impulse noise in images DTBDM", on 3 rd National Conference on Emerging Trends in Computer Communication and Informatics (ETCCI'14), (pp-18). (2014)
5.	"Smart Traffic Flow Control using MSP430" in National Conference on Versatile Automation (NOVA'15). (2015)
6.	"Mobile Phone Harmless Radiation Calculator" in the National Conference on Versatile Automation (NOVA'15). (2015)
7.	"Clatter Diminishing for Mobile Telephonic", IEEE sponsored 2 nd International Conference on Innovations in Information, Embedded and Communication System, ICIIECS'15, Vol.6, pp 552-555. (2015)
8.	"Diminishing of Noise in Mobile Contiguous", 2 nd International conference on Trends in Technology for Convergence, TITCON-2015, pp.117-120. (2015)
9.	"Signal Denoising for Smart Telephonic Proximity", National Conference on Modern Embedded and Communication System, MECS'15, pp.no:75-78. (2015)
10.	"Denoising of Speech Signal for Smart Telephonic Proximity", International Conference on Advances in Communication and Technology, MULTICON'15, Vol.2, pp.686-689. (2015)
11.	"Enhancement of Satellite Image using Hierarchical histogram Equalization with Denoising", in International conference on Communication and Security. (2016)
12.	"Comparision and Edge Detection of Satellite Images using canny method", in National Conference on Recent Trends in Communication and Information Technology. (2016)
13.	"Mapping and Analysing of Water Resources in Salem District using GIS and Remote Sensing", in 3 rd National Conference on Recent Trends in Communication and Information Technology RTCIT-16. (2016)

14.	"Urban Sprawl Mapping and Monitoring using GIS and Remote Sensing – Salem city", in 3 rd National Conference on Recent Trends in Communication and Information Technology RTCIT-16. (2016)
15.	"Satellite Image Denoising using Directional Median Filter", in IEEE Advanced Computing Conference (IACC – 2016).
16.	"An Innovative Approach For Speech Compression Discrete Cosine Packet Transform "by Shanmugasundaram, P.prakasam, 2009.
17.	"Enhancement OF Reverberant Speech Using Various Transform" by R. Shanmugasundaram, N.A Natraj, R.vijayaragavan,2011.
18.	"Satellite Image Resolution Enhancement Using Discrete Wavelet Transform" by R. Shanmugasundaram, k.Sivaprakasam, R.Moorthi, N. Poornidevi,2012.
19.	"Satellite Image Resolution Enhancement Using Histogram Equalization" by R. Shanmugasundaram, R. kathiravan, N.santhiyakumari,2014.
20.	"Satellite Image Resolution Enhancement Using Contrast Limited Adaptive Histogram Equalization" by R. Shanmugasundaram,R. kathiravan, N.santhiyakumari,2014
21.	"Efficient Removal of Impulse Noise in Images DTBDM "by R.Shanmugasundaram, N.Santhiyakumari, K.Papitha, 2014
22.	"Fetal ECG Extraction From the Mother ECC Using Wavelet Transform technique" by Shanmugasundaram, C.kavitha, S.Yuvaraji, P.Dhivya, 2014.
23.	"Detecting Stress Using Brain Activities from EEG signals" by R.Shanmugasundaram, S.Santhiya, C.Kannan, G.Dhivya,2014
24.	"IOT based child rescue system in open borewell using MSP430" by R.shanmuga sundaram,S.Akbarshameem musthaq,V.maheshprabha,S.Sabarinathan,G.Rajagurumoorthy.2021(ICREACT)
25.	"Fire and smoke detection without sensor:Imasge Processing Based Approach" by R.shanmuga sundaram,.2022(EMTEDM)
26.	"IOT based Humidity & Temperature monitoring system using Ardunio uno" by R.shanmuga sundaram.2022(EMTEDM)

A 08	Training Programmes Attended
1.	TEQIP-II sponsored Faculty Development Programme on Advanced Techniques In Digital Signal And Image Processing Using MATLAB organised by Government College Of Engineering, Salem from 7-20 June 2016.
2.	Participated in two weeks ISTE STTP on Technical Communication organised by Indian Institute Of Technology, Bombay from 8 th October- 5 th December 2015.
3.	Session chair in International Conference on Modelling, Simulation And Control (ICMSC'15) organised by Karpagam College Of Engineering, Coimbatore on 15-16 October 2015.
4.	Participated in Faculty Development Program on Improving The Technique Methodology in Engineering organised by American University Of India, Kodikanal from 20-22 May 2015.
5.	One day workshop on Image and Speech Processing organised by International Institute Of Information Technology, Hyderabad on 13 th December 2014.
6.	Two week workshop on Control System organised by Knowledge Institute Of Technology, Salem during 2-12 December 2014.
7.	One day workshop on Enhancing Research And Publication Skills (WERPS) organised by Mahendra Engineering College, Namakkal on 8 th November 2014.
8.	Attended guest lecture on Applications Of Advanced Imaging Software- APHELION DEV organised by Knowledge Institute Of Technology on 6 th November 2014.
9.	Two day workshop on Towards Organization Excellence organised by knowledge Institute Of Technology, Salem during 21-22 July 2014.
10.	Two weeks workshop on Signals And Systems organised by Knowledge Institute Of Technology, Salem 2-12 January 2014.
11.	Four day short term training Program on Advances In VLSI Signal Processing" organised by Indian Institute Of Technology, Kharagpur from 3-7 December 2013.
12.	Two week Faculty Development Program on Advance In Medical Imaging Using Computational Intelligences organised by Knowledge institute Of technology, Salem during 26 August- 7 th September 2013.
13.	Participated in two week workshop on Analog Electronic organised by IIT, Khanpur from 4-14 June 2013.
14.	Two day workshop on Research Methods In Educational Technology organised by Indian Institute Of Technology, Bombay on 2 nd and 9 th February 2013.
15.	Attend the two days workshop on Teaching Methodology on the Name WIPRO MISSION10X organize by the WIPRO from 6 & 7 June2011.
16.	Attend the two one day workshop on the Name E-sim organize by the IIT Bombay
17.	Attend the one day Atal Incubation Centre-Pondicherry Engineering College Foundation titled "How to Conduct Online Class to Students"
18.	Attend one week program on "INSIGHTS INTO QUALITY RESEARCH AND INNOVATION" organized by Research &Development Cell and Institution's Innovation Council of Vivekanandha College of Engineering for Women from 13 th May 2020 to 20 th May 2020.

19.	Attend one week program on Biomedical Instrumentation & IoT “ from September 21 to 25 2020 ,conducted by Sri Krishna College of Technology.
20.	Attend one week program on “Internet of Things (IoT)” from February 01 to 05 2020 ,conducted by knowledge institute of Technology.

A 07	Memberships in Professional Bodies
S.No.	Name of the Professional Body
1.	Life Member of Indian society of Technical Education(ISTE)
2.	Member of International Association of Engineers (IAENG) (No : 137509)

A09	Special Lectures Delivered
1.	Special Lecture on “Satellite Image processing” at TEQIP-II sponsored Faculty Development Programme on Advanced Techniques In Digital Signal And Image Processing Using MATLAB organised by Government College Of Engineering, Salem from 7-20 June 2016.
2.	Handled Two session in ATAL FDP

A 10	Awards& Recognitions
S.No	Name of the Award
1.	Received Best Faculty Award from College (2013) for his efficient Research work.
2.	Received Achiever Award from College (2016-2017) for his efficient publication work.
3.	Received Achiever Award from College (2015-2016) for his contribution in TI Design contest..
4.	Received Appreciation Award for the contribution in Placement activity on 2015,2016,2017.

A11	As A Mentor
1.	Guided for the project poster presentation in TNSCST and get fund of Rs10000 for the title”GSM and voice based assisting system for blind people”
	Projects Guided – UG
1.	Ecg signal feature extraction
2.	Monitoring the Zoo animal using IOT
3.	IOT based smart poultry farm
4.	Plant disease detection using Image processing
5.	Vittles inspection using Image processing and IOT
6.	IOT based child rescue system in open bore well using MSP430

	Projects Guided - PG
1.	Satellite Image Denoising
2.	Mobile phone noise Denoising in different environment
3.	Signal processing related project
4.	Identification of tablet solvent using Image processing
A12	Programs Organized
1.	Conducted one ATAL FDP on the topic of Data Analytics on Smart Health Care
2.	Attended guest lecture on Applications Of Advanced Imaging Software- APHELION DEV organised by Knowledge Institute Of Technology on 6th November 2014.
3.	Conducts around 50 pooled off campus placement drive in our college
A13	Highlights of Major Contributions
	At Department Level
1.	Motivate and Counsel the student to Achieve their goal.
2.	Member in the student performance monitoring in the college.
3.	Class Advisor (2019 UG-Till date)
4.	Physical Lab Incharge (2010-Till Date)
5.	NIRFIncharge (2010 - Till date)
6.	Project Phase Incharge (2012 - Till date)
7.	Coordinator for Industry Vertical -SPARK Club (2013 - Till Date)
	At College Level
1.	Coordinator for Major activities in College Functions such as Annual Day and Graduation Day, Achievers Day (2011 - Till date)
2.	Displine committee Incharge
3.	NIRF and other Ranking Related work
A14	Universities Visited
1.	Anna University, Chennai, Coimbatore
2.	VIT University, Vellore
A15	Other interests
1.	Interested in content product development
2.	Interested in applying grants for various funding agencies for organizing Seminar, workshop and Value added courses for students for the advancement of technology.