

# JSS Mahavidyapeetha JSS Academy of Technical Education, Bengaluru Department of Electronics & Communication Engineering



#### **FACULTY PROFILE**

#### 1. Personal Details

NAME	Dr. Saroja S Bhusare
DEPARTMENT	Electronics & Communication Engineering
DESIGNATION	Associate Professor
PHONE	+91 9964420351
EMAIL ID	sarojasbhusare@jssateb.ac.in
TEACHING EXPERIENCE	26 Years
INDUSTRY EXPERIENCE	-
RESEARCH EXPERIENCE	14Years



#### 2. Qualification

COURSES	SPECIALIZATION	INSTITUTION	UNIVERSITY
Ph.D	Low Power VLSI	VIT Chennai Tamil Nadu India	School of Electronics and Communication Engineering, VIT Chennai Tamil Nadu India
M.Tech	VLSI Design and Embedded Systems	BMS College of Engineering Bangalore Karnataka INDIA	BMS College of Engineering Bangalore Karnataka INDIA
B.E	Electronics and Communication Engineering	Basaveshwar Engineering College Bagalkot Karnataka INDIA	Karnatak University, Dharwad Karnataka
Diploma	Computer Science and Engineering	B V V S Polytechnic Bagalkot Karnataka INDIA	Board of Technical EXaminatio
SSLC	-	St. Anne's Convent School, Bangalore Karnataka INDIA	Karnataka Secondary Education Examination Board

# 3. Membership of Professional Bodies:

1. Life Membership in Indian Society for Technical Education (MISTE)

# 4. Awards

Award Title	Date of receiving the award	Award issuing authority/ Body / Organization
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# 4. Publications ( Journals )

SI. No.	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus / Both	Impact Factor	Publisher
1	Low-Power High-Accuracy Fixed-Width Radix-8 Booth Multiplier Using Probabilistic Estimation Technique	1) Saroja S Bhusare 2) Dr. V S Kanchana Bhaaskaran	Journal of Circuits, systems and computers	Vol. No. <u>26</u> Issue No. <u>05</u> pp:1750079 [12 pages] Year:2017	WOS and Scopus	1.59	World Scientific Publishers
2	High Accuracy Fixed-Width Radix-8 Booth Multiplier Using Adaptive Conditional- Probability Estimator	1) Saroja S Bhusare 2) Dr. V S Kanchana Bhaaskaran	International Journal of Pure and Applied Mathematics	Vol. No.118 Issue No. 26 pp: 1903- 1918 Year:2018	-	0.320	Academic Publications
3	Design and Development of Solar Powered Automatic Irrigation System for Modernization of Agriculture	1)Veeramma Yatnalli1 2), Saroja S. Bhusare 3), B.G. Shivaleelavathi 4), C. Sheetal 5), B. Reshma 6) M.Swetha 7) H. N. Yashaswini	AGRIVITA Journal of Agricultural Science	Vol. No.45 Issue No. 1 pp: 173-187 Year:2023	WOS and Scopus	0.6	Faculty of Agricultural University of Brawijaya, Indonesia
4	Performance Analysis of Graph theory- based Contrast Limited Adaptive Histogram Equalization for Image Enhancement	1)Manjunath A 2) Neelappa 3) Prakash 4)Veeramma Yatnalli 5) Saroja S. Bhusare	WSEAS TRANSACTIONS on SYSTEMS	Vol. No.22 pp: 219-230 Year:2023	Scopus	0.52	World Scientific and Engineering Academy and Society
5	Improving graphics processing unit performance based on neural network direct memory access controller	1)Santosh Kumar 2)Neelappa Neelappa 3)Saroja Bhusare, 4)Veeramma Yatnalli	Indonesian Journal of Electrical Engineering and Computer Science	Vol. No.32 Issue No. 3 pp: 1476- 1484 Year:2023	Scopus	0.247	Institute of Advanced Engineering and Science (IAES)
6	Wheelchair Control Using Brain Computer Interface	1)Veeramma Yatnalli 2)B G Shivaleelavati 3)Saroja S Bhusare	International Journal of Future Generation Communication and Networking, Science & Engineering	Vol. 14 issue. 1 PP: 384– 395 Year 2021	-	-	Science & Engineering Research Support society
7	A comprehensive review on Machine Learning algorithms for prediction and analysis of Chronic Kidney Disease	1)Kavitha M 2)Saroja S Bhusare 3)Ananya R 4) Jayashree P 5) L Ashwini 6) Niharika	High Technology Letters	Vol 27, Issue 7, PP:54-62 Year 2021	-	-	-
8	Review on Flex Sensor Based	1)Saroja S Bhusare 2) Kavitha M	Journal of Huazhong	Vol 50 Issue 8	-	-	-

	Human Activity Monitoring System	3) Achyut S Kulkarni 4) Aditya S Joshi 5)Ankit panda 6) Jeevan k	University of Science and Technology	PP:1-6 Year 2021			
9	A Review on Modern Irrigation Technologies for Water Management	1)VeerammaYatnalli1 2)Shivaleelavathi B G 3)Saroja S Bhusare	International Journal for Modern Trends in Sceicen and Technology	Vol. 7 PP:150-159 Year 2021	-	-	Index Copernicus International
10	Implementation of IoT based Smart Village for the Rural Development	1)Medara Sahana 2)Yarraguntla Sarala 3)Anushka Bisht 4) Pavitra Bhovi 5) Dr. Saroja S Bhusare	International Journal of Research and Technology	Vol. No-08 Issue:03 Year:2020	-	-	-
11	Review of IoT based Smart Village for the Rural Development	1)Medara Sahana 2)Yarraguntla Sarala 3)Anushka Bisht 4) Pavitra Bhovi 5) Dr. Saroja S Bhusare	International Journal of Engineering Research & Technology (IJERT)	Vol. No-08 Issue:04 Year:2020	-	-	-
12	Design of Pulsed latch Shift Register	Veeresh Gavai     Veeramma Yatnalli     Saroja S Bhusare	International Research Journal of Engineering and Technology (IRJET)	Vol. No-05 Issue:05 pp:2766- 2769 Year:2017	-	-	Fast Track Publications
13	A qualitative Analysis of Various Adaptive Routing Algorithms	1)Kavyashree G S 2) Saroja S. Bhusare, 3)Sunita Shirahatti	International Research Journal of Engineering and Technology (IRJET)	Vol. No-03 Issue:05 pp:773-777 Year:2016	-	-	Fast Track Publications
14	Image Processing of High Resolution Retinal Images	1)Kumuda E Patel 2) Chaitra Narayan 3) Saroja S Bhusare	International Journal of Engineering Research & Technology IJERT	Vol. 3 Issue 6 Year 2014	-	-	-

# Conferences

SI. No.	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
1	Development of Personalized Health Detection Device for Covid-19	1)Veeramma Yatnalli 2)Saroja S Bhusare 3)B G Shivaleelavathi 4) Divya Sri Rajeswari 5)J HithaShree 6) Ananya LN Simha 7)Maria Nuzhath Subhani	2nd International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT) 2024	PP:525-532 PP:Year 2024	WOS and Scopus	-	IEEE
2	EEG based Detection of Schizophrenia using Machine Learning	1)Veeramma Yatnalli 2)Saroja S Bhusare 3) P M Shivakumaraswamy 4) D Sahana 5) A B Sunidhi 6) A S Sushmashree	14th International Conference on Computing Communication and Networking Technologies (ICCCNT) at IIT Delhi 2023	PP:1-7 Year 2024	WOS and Scopus	-	IEEE
3	Restoration of Images Corrupted by Multipath Fading Channel with Weighted Encoding	1)Veeramma Yatnalli 2)Saroja S Bhusare 3)Kavitha M 4)Akshatha Naik 5)Ashwini T 6)Dakhshayani 7)Chandana D	Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT) 2022	PP:1-7 Year 2022	WOS and Scopus	-	IEEE
4	Optimized Reversible Arithmetic and Logic Unit	1)Saroja S Bhusare 2)Veeramma Yatnalli 3) E Shreya 4)Shreeram Aithal 6)Gayana A Jain 7)O Sreekaar	International Conference on Communication and Intelligent Systems At NIT Delhi 2022 Best paper Award	PP:641-653 Year 2022	WOS and Scopus	-	Springer Nature Singapore
5	Machine Learning and Digital Image Processing in Lung Cancer Detection	1)Saroja S Bhusare Veeramma Yatnalli Sanket G Patil, Shailesh Kumar, Niranjan Ramanna Havinal, CS Subhash	International Conference on Intelligent Vision and Computing at NIT Agartala 2022	PP:56-67 Year 2022	-	-	Springer Nature Switzerland
6	Architectural based congestion management for Network on Chip implemented on FPGA	1)Kavyashree G S 2) Saroja S. Bhusare 3)Sunita Shirahatti	2 <sup>nd</sup> International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT), 2016 IEEE	pp:256-261 Year-2016	Scopus		IEEE Xplore
7	Fixed-Width Multiplier with Simple Compensation Bias	1) Saroja S Bhusare 2) Dr. V S Kanchana Bhaaskaran	2 <sup>ND</sup> International Conference on Nanomaterials and Technologies CNT- 1014, Vardhaman College of Engineering, Hyderabad	Vol. No.10 pp:395- 402 Year:2015	wos	-	Science Direct
8	Design of a Low Error Fixed- Width Radix-8 Booth Multiplier	1) Saroja S Bhusare 2) Dr. V S Kanchana Bhaaskaran	Signal and Image Processing (ICSIP), 2014 Fifth International Conference on Signal and Image Processing	pp:206-209 Year:2014	Scopus and WOS		IEEE Xplore

9	Design and FPGA Implementation of Improved Lifting Scheme based DWT for OFDM Systems	1)H S Deepthi 2) Sumita Shankar Manure 3) Cyril Prasanna Raj P 4) Saroja S Bhusare 5)U L Naik	3 <sup>RD</sup> International Conference on Advances in Recent Technologies in Communication and Computing ARTcomm 2011	pp 184-127 Year 2011	Scopus	-	IET (IET Digital Library)
10	Low Power ASIC Implementation of a 256 Bit Key AES Crypto- Processor at 45nm Technology	1)Ashwin R 2)Saroja S Bhusare	International Conference on Electronics and Electrical Engineering ICEEE- 2012 30th june 2012 organized by IOJA at Mysore India	Year 2012	-	-	IPM Pvt. Ltd
11	Design, Analysis and Simulation of Self Bias Phase Lock Loop with Different Locking Techniques	1) Divyashree S 2) Saroja S Bhusare	International Conference on Electronics and Electrical Engineering ICEEE- 2012 30th june 2012 organized by IOJA at Mysore India	Year 2012	-	-	IPM Pvt. Ltd
12	Review of IoT based Smart Village for Rural Development	1)Medara Sahana 2)Yarraguntla Sarala 3)Anushka Bisht 4) Pavitra Bhovi 5) Saroja S Bhusare	1st National Conference on Emerging Trends in Engineering Science for Future Technology	Vol. No-08 Issue:14 pp 195-203 Year 2020 Selected as best Paper	-	-	International Research Publication House
13	Wheelchair Control Using Brain Computer Interface	1)Veeramma Yatnalli 2)B G Shivaleelavati 3)Saroja S Bhusare	National Conference on Bioengineering, Biotechnology and Medical Engineering Dept., NIT, Rourkela, India	Abstract Presentation 10th-11th December 2020	-	-	-
14	Smart Health Care and Tracking System Based on Internet of Things	1)B G Shivaleelavati 2)Veeramma Yatnalli 3)Saroja S Bhusare	National Conference on Bioengineering, Biotechnology and Medical Engineering Dept., NIT, Rourkela, India	Abstract Presentation 10th-11th December 2020	-	-	-

# 6. Grants/Funding Received

Grant Amount	Project Name	Date of receiving the Grant	Grant issuing authority/ Body / Organization
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#### 6.Others: Workshops/Conference(Orgainsed/Attended)

#### 6.a. Workshops / Conference organized

National Conference on VLSI, Signal and Image Processing, JSS Academy of Technical Education, Bangalore, 22-08-14 to 23-08-14, Organizing Committee Member

Signal, Image Processing and SDR Using LABVIEW, JSS Academy of Technical Education, Bangalore in Association with Techlabs, 22-06-15 to 24-06-15, Organizing Committee Member

Design Verification using Verilog and System Verilog, JSS Academy of Technical Education, Bangalore in association with EDULIFE INDIA, 26-11-15 to 27-11-15, Organizing Committee Member

#### 6.b. Conference Attended (those sponsored by AICTE / ISTE/IETE/TEQIP or anyother sponsoring body)

Digital Signal Processing and Applications, Department of Electronics and Computer Science Engineering, Bangalore University, Bangalore Bangalore and AICTE Delhi, 29-07-02 to 14-08-02

Accreditation Process for Technical Institutions, JSS Academy of Technical Education, Bangalore in Association with VTU, ISTE, IIIE and QCFI, 26-08-16 to 27-08-16

# 6.c. workshop/ Seminar /Conference Attended ( those NOT sponsored by AICTE / ISTE/IETE/TEQIP or anyother sponsoring body)

Mixed-Signal VLSI, Bangalore Institute of Technology, Bangalore, 18-02-2005 to 23-02-2005

A Short term Course on System C, JSS Academy of Technical Education, Bangalore, 06-04-05 to 08-04-05

Cadence Tools Training, Cadence, Bangalore, 03-03-06

VLSI Design using Cadence Tools, Sri Venkateshwara College of Engineering, Bangalore, 27-02-06 to 02-03-06

Recent Trends in VLSI and Embedded System Design Technology, Global Academy of Technology, Bangalore, 12-04-07 to 13-04-07

Cadence Tools Training, Cadence, Bangalore, 20-09-07

Cadence Tools Training, , Cadence, Bangalore, 14-03-08

Analog and Mixed-mode Design using Cadence Tool, BNM Institute of Technology, Bangalore, 02-02-09 to 04-02-09

VLSI, MEMS and Integration, SENSE, VIT Chennai, 09-12-11 to 10-12-11

FPGA based Embedded System Design, JSS Academy of Technical Education, Bangalore in Collaboration with Dexcel-EmDAC, 03-01-12

25th International Conference on VLSI Design, Hyderabad, 07-01-12 to 11-01-12

Advanced Trends in Low Power SoC VLSI Design, Center for Emerging Technologies, Jain University, Bangalore, 05-10-12 to 06-10-12

National Conference on Antennas and Applications, Regional Campus, VTU, Bangalore, 24-02-12 to 25-02-12

International Conference on Electrical and Electronics Engineering, Mysore, 30-06-12

Fifth International Conference on Signal and Image Processing, BNM Institute of Technology, Bangalore, 8-01-14 to 10-01-14

Advanced VLSI Design using Cadence Tool Suite, JSS Academy of Technical Education in Association with Cadence Design Systems India Pvt. Ltd., Bangalore, 16-07-14 to 18-07-14

2<sup>ND</sup> International Conference on Nanomaterials and Technologies CNT-1014, Vardhaman College of Engineering, Hyderabad, 17-10-14 to 18-10-14

Design Verification using Verilog and System Verilog, JSS Academy of Technical Education, Bangalore in association with EDULIFE INDIA, 26-11-15 to 27-11-15

GNU Radio and Software Defined Radio, JSS Academy of Technical Education, Bangalore in Association with Tenet Technetronics, 27-06-16 to 01-07-16

Advances in VLSI Design AVLSID-2017, Bangalore Institute of Technology, Bangalore, 03-04-17 to 05-04-17

National Symposium on Internet of Things-Trends and Opportunities, Centre for Interdisciplinary Research, JSS Academy of Technical Education, Bangalore, 04-07-18 to 05-07-18

Al and ML Applications in image processing using modern tools, Ramaiah Institute of technology, Bangalore, 13-07-2020 to 18-07-2020

FDP on Importance of Data Science In Machine Learning and Its Applications, 06-02-2023 to 10-02-2023, RVITM, Bengaluru 2nd International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT), Rev 2024

14th International Conference on Computing Communication and Networking Technologies (ICCCNT), IIT Delhi 2023

Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT) 2022, PES Mandya

International Conference on Communication and Intelligent Systems, NIT Delhi 2022

International Conference on Intelligent Vision and Computing ,NIT Agartala 2022

Workshop on Analog VLSI design using EDA tools (AICTE-VTU Joint Training Programme for AICTE Approved & VTU Affiliated Institution Teachers), 20-03-2023 to 25-03-2023

Workshop on Capacity Building in R&D, 16-03-2023, JSSATE, Bengaluru

FDP on Recent Trends and Applications on Nanoscale Devices and Circuits, 20-31st July organized by NIT Warangal

Workshop on Advanced ICT Tools for Higher Education at RVCE, Bengaluru 13 to 17th September 2021

ATAL FDP on Machine Learning Techniques in VLSI Design 26<sup>th</sup> to 30<sup>th</sup> July Organized by Ramaiah Institute of technology, Bangalore

Analytical Techniques for Nanomaterial, "Sponsored by Ministry of Electronics and Infomation Technology (MeitY) Gol organised by E&ICT Academy, NIT Warangal and JSS Science and Technology University, Mysuru during 18th . 25th July, 2022.

# 6.d. PROJECT / Innovations/Patents

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6.e. Any other information you will like to share about your professional experience