



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



FACULTY PROFILE

1. Personal Details

NAME	DrThejaswini P	 B 31859
DEPARTMENT	Electronics and Instrumentation Engineering	
DESIGNATION	Professor	
PHONE	9845499099	
EMAIL ID	thejaswinip@jssateb.ac.in	
TEACHING EXPERIENCE	18.6yrs	
INDUSTRY EXPERIENCE	NIL	
RESEARCH EXPERIENCE	<ul style="list-style-type: none">• 8 years• Worked as Post Doctoral Fellow in the project entitled 'Information Security Education and Awareness-phase II', in the Department of Computer Science and Engineering, IIT Guwahati, sponsored by Ministry of Electronics & Information Technology, Government of India.	

2. Qualification

COURSES	SPECIALIZATION	INSTITUTION	UNIVERSITY
PhD	Image Processing and Embedded Systems	SIT, Tumkur	VTU, Belgaum
MTech	VLSI DESIGN & Embedded Systems	JSSATE, Bangalore	VTU, Belgaum
BE	Electronics & Communication Engineering	YDIT, Bangalore	VTU, Belgaum
PUC	PCMB	Vishwamanava PU College, Mandya	Department of Pre-University Education, Government of Karnataka
SSLC		Carmel Convent High School, Mandya	Karnataka Secondary Education Examination Board

3. Membership of Professional Bodies:

1. IEEE member-2019-til date,
2. IETE Fellow-F-504105

4. Awards : Women in engineering track best paper award, IEEE India Council, at IEEE INDICON, 2021

5. Publications (Journals, Conferences)

Journals:

Sl. 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	Engineering solutions for IoT security: a BiLSTM-Former and RL-GTAE-based approach.	Gunasagari G S, Shankaraiah N & Thejaswini P	Sadhana - Academy Proceedings in Engineering Sciences. DOI: https://doi.org/10.1007/s12046-025-02807-w	ISSN. 02562499, 09737677, July 2025	both	1.4	Spinger Nature
2	Approximate CNN Hardware Accelerators for Resource Constrained Devices	Thejaswini P, Gautham Suresh, Chirag V ,Sukumar Nandi	IEEE Access	1 – 1, Jan 2025	both		IEEE
3	Prediction-Enabled Resource Allocation for Air Quality Monitoring using Temporal Convolutional Network-Based PM2.5 Forecasting Model in Cloud Datacenters.	P Thejaswini, Sunita Shirahatti, Gunasagari, G. S., Hongal, R. S., & Mattimani, R. S. (2024).	Journal of Circuits Systems and Computers	Accepted for publication, Nov 2024	both		World Scientific
4	LiteHash: Hash Functions for Resource-Constrained Hardware	Sagar Dev Achar, Thejaswini P, Sukumar Nandi, and Sunit Nandi.	ACM Transactions on Embedded Computing Systems	Article No.: 28, Pages 1 – 17, Jan 2025	both		Association for Computing Machinery New York NY United States
5	Hardware Trojan Detection and Mitigation in NoC using	Thejaswini P, Vivekananda G, Anu H, Priya R, Krishna Prasad B S,	EMITTER International Journal of Engineering Technology,	Vol 10 No 2 (2022)	WoS		EMITTER

	Key authentication and Obfuscation Techniques	Nischay M					
6	Hardware Trojan Detection based on Testability Measures in Gate Level Netlists using Machine Learning	Thejaswini P, Anu H, Aravind H S, D Mahesh Kumar, Syed Asif, Thirumalesh B, Pooja C A, Pavan G R	International Journal of Advanced Computer Science	Volume 13 Issue 12, 2022.	both		Science & information sai organization ltd, 19 bollingrd, bradford, west yorkshire, england, 00000
7	Optimization based Neural Network for fingerprint recognition in Real Environment	Thejaswini P, Dr R Srikantaswamy, DrManjunatha A S	International Journal of Control Theory and Applications	Vol.10, No.39,2017	Scopus		International Science Press
8	Study and Analysis of Environmental Noise and Its Impact on Fingerprint Image	Thejaswini P, Dr R Srikantaswamy	International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE)	Volume 5, Issue 8, August 2016	-		IJARECE
9	North-Last Routing Technique for Hotspot Management in NOC in Multi-Core Processors	Thejaswini P,S. A. Lavanya	International Journal of Research in Engineering, Science and Management	Volume No-3 Issue No-6 Year-June 2020 Page No-685	-		IJRESM
10	Novel Adaptive Auto-Correction Technique for Enhanced Fingerprint Recognition	Thejaswini P, Dr R Srikantaswamy, DrManjunatha A S	International Journal of Advanced Computer Science and Applications, Vol. 10, No. 8, 2019	Volume No. 10 Issue No.8 Year 2019 Page No.471	WOS		Science & information sai organization ltd, 19 bollingrd, bradford, west yorkshire, england,

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11	Detection and Classification of Tumour in Brain MRI	Thejaswini P, BhavyaBhat, Kushal Prakash	International Journal of Engineering and Manufacturing	Volume 9 Issue No.1 Year 2019 Page No.11-20	-	h5 index (Google scholar citation) 0.87 (Research Gate citation)	MECS Press
12	MOTF: Multi-objective Optimal Trilateral Filtering based partial moving frame algorithm for image denoising	Thejaswini P, Rejeesh M R	Multimedia Tools and Applications	79, pages28411 – 28430(2020)	Both	2313	Springer
13	Hotspot management using North-last routing in mesh topology in Network-on-Chip	Thejaswini P, Lavanya S A	Seybold Report,	Volume 15, Issue 8, 2020	Scopus	H index 1	Seybold Publications
14	An Improved Dictionary based Lossless Data Compression Technique	Thejaswini P, Sunita, Shirahatti,	Seybold Report	Volume 15, Issue 8, 2020	Scopus	H index 1	Seybold Publications
15	An adaptive algorithm based authentication system for real-time biometric time-attendance system	Thejaswini P., Anu H., D. Mahesh Kumar, Aravinda H.S	Information Technology In Industry	Vol. 9, Issue 1, pp. 77 – 90 (2021)	WOS		LA TROBE UNIV, Dept of Computer Science & Computer Engineering , Po Box 199, Bendigo, Australia, Vic 3552
16	NDVI COMPUTATI	Vijayalakshmi V	Information Technology In Industry	Vol. 9, Issue 1, pp. 77 –	WOS		LA TROBE

	ON OF LISS III IMAGESUSIN G QGIS	D Mahesh Kumar, S C Prasanna Kumar, Thejaswini P.		90 (2021)			UNIV, Dept of Computer Science & Computer Engineering , Po Box 199, Bendigo, Australia, Vic 3552
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Conferences:

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Conference	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
1	Tunable Approximate Multiply Accumulate circuit	Thejaswini P, Vivekananda G, Gautham Suresh, Sukumar Nandi	IEEE R10 Symposium-TENSYMP2024, Netaji Subhas University of Technology (NSUT), Delhi, September 2024	2024	Scopus		IEEE Digital Explorer
2	Strengthening NoC Security: Leveraging Hybrid Encryption for Data Packet Protection	Thejaswini P, AR Sahana, John Jose	TENCON 2023-2023 IEEE Region 10 Conference (TENCON)	2023	Scopus		IEEE Digital Explorer
3	Application of Error Detection and Correction Techniques to Self-Checking VLSI Systems: An Overview	Sahana A R, Chiraag V, Gautham Suresh, Thejaswini P, Sukumar Nandi	2023 IEEE Guwahati Subsection Conference (GCON)	2023	Scopus		IEEE Digital Explorer
4	Secure Video Streaming Techniques: A Performance Overview	Sagar Dev Achar, Shankar Singh C, Thejaswini P, Sukumar Nandi	2023 IEEE Guwahati Subsection Conference (GCON)	2023	Scopus		IEEE Digital Explorer
5	Reverse Engineering techniques for Android systems: A Systematic approach	Hrushik Raj S, Thejaswini P, Sukumar Nandi	2023 IEEE Guwahati Subsection Conference (GCON)	2023	Scopus		IEEE Digital Explorer
6	Energy Efficient Approximate MACs	Thejaswini P, John Jose, Sukumar Nandi	2021 IEEE 18th India Council International Conference (INDICON)	2022	scopus		IEEE Digital Explorer
7	Extended Base-Delta Compression Technique for	Vivekananda G and Thejaswini P	2021 IEEE 18th India Council International Conference (INDICON)	2022	scopus		IEEE Digital Explorer
8	Enhanced	Thejaswini P, Dr R	International Conference on	2019	Scopus		IEEE Digital Explorer

	Fingerprint Recognition by Reference Auto-correction with FCM-CBIR strategy	Srikantaswamy, DrManjunatha A S	Inventive Systems and Control (ICISC 2019)				
9	Measurement and Evaluation of Ground Station Parameters For ISRO Launch Mission	Thejaswini P, Harshitha N, Kondapalli Sravani, Mamatha R Reddy	ICSIPCA2017,	2017	-		Grenze Scientific Society
10	Detection of Glaucoma in Retinal Fundus Images	Thejaswini P, Supreetha M S	International Conference on New Trends in Engineering & Technology, IEEE Digital Explorer	2018			IEEE Digital Explorer
11	Impact of Fingerprint image quality on matching score	Thejaswini P, Dr R Srikantaswamy, DrManjunatha A S	International Conference on Cognition and Recognition (ICCR 2016)	2016	Scopus		Springer: Lecture Notes in Networks and Systems.
12	A Theoretical Proposition to Characterize Speed based Performance of Bulk Transaction in USB 3.0 Super Speed Protocol	Thejaswini P, Adithya Rangan C.K	2 nd IEEE International Conference on Applied and theoretical Computing and Communication Technology.	2016	Scopus		iCATccT - 2016 IEEE , organized by SJBIT, Bengaluru
13	Environmental Impact on Biometric Traits and Methods to Improve Biometric Recognition System	Thejaswini P, Dr R Srikantaswamy, DrManjunatha A S	2 nd International Conference on Recent Trends in Signal Processing & VLSI (ICrTSIC-215),	2015 Vol. No.: 10.3850/978-981-09-6200-5_32	-		RPS, organized by Dept. of Electronics & Communication Engineering, Don Bosco Institute of Technology, Bangalore
14	Improved Huffman LZW algorithm of Lossless Data Compression for WSN	Thejaswini P, Vamshik	Emerging trends in engineering and technology, Bangalore.	2015	-		ICEET
15	Data recovery for NOC	Thejaswini P, Arun Kumar MS	National Conference on Communication and Image Processing Engg , 9 th May 2014	2014	-		
16	An Intelligent Vehicle System to Detect Drowsiness & Rash Driving	Thejaswini P, Arpitha T C	National Conference on VLSI Signal and Image Processing, 22-23 rd August 2014	2014	-		
17	An Android based Application to Detect Drowsiness	Thejaswini P, Arpitha T C	FCS'14 May 15-17, 2014	2014	-		

	and rash driving						
18	Improved Huff – Man Algorithm of Loss less Data Compression for WSN	Thejaswini P, Syed Maaz	National Conference on Wireless control & Communication Technologies, NCWCT-2015	2015	-		NCWCT2015

6.Others :Workshops / Conference (Organized/Attended)

6.a. Workshops / Conference organized :

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	Secure Systems Engineering.	In association with IIT Guwahati	2 nd June 2022

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

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	Faculty mentoring/Training Program on project proposal writing	IIT Guwahati	18-2-22 to 2-05-22
2	Two Week Online Faculty Development Programme On Electric Vehicles & mobility	Supported by Ministry of Electronics and Information Technology (MeitY) Electronics & ICT Academies NIT Patna, MNIT Jaipur, IIITDM Jabalpu	14-3-22 to 26-3-22,
3	33 rd International Conference on VLSI Design (VLSID 2020)	VLSI Society of India and IEEE Banglore Section	04.01.2020 to 08.01.2020
4	Two week online FDP on “Python”	Department of Electronics and Communication Engineering, JSS Academy of Technical Education, Noida and Spoken Tutorial Project IIT Bombay funded by National Mission on Education through ICT, MHRD, Govt of India.	22 nd June - 4 th July 2020
5	Research Methodologies and Latex”	VTU e-Learning Centre, Mysore	20th to 22nd Feb 2014 (2 days)
6	Advance VLSI Design Using Cadence Tool Suite	Department of Electronics and Communication Engineering,	16th to 18th July 2014 (3 days)
7	on “Signal, Image processing & SDR using Labview”(SIPS 2015)	Department of Electronics and Communication Engineering,	22nd to 24th June 2015 (2 days)
8	Global Business Foundation Skills”	JSSATE, Bengaluru	29/12/14 to 3/1/15 (ONE WEEK)
9	Digital Image Processing: Basics to Recent Trends	Department of Computer Science and Engineering	13/6/2016 to 17/6/2016 (5 days)
10	5 Day FDP on “GNU Radio and SDR”	Department of Electronics and Communication Engineering,	16th to 18th June-2016
11	FDP on “Emerging technologies in short range wireless communication”	Department of Telecommunication engineering	2nd – 6th July 2018 (5 days)
12	National symposium on “Internet of things-Trends and opportunities”	Centre for Inter-Disciplinary research- along with department of ECE and	4th and 5th July (2days)

		E&IE	
13	FDP on “Emerging Trends in Multi-core Processors & Network on Chip Architecture”	Department of ECE and CSE, in association with MARS Research Lab, IIT-Guwahati	21st to 25th Jan-2019 (5 days)
14	FDP on Multi-Core Computer Architecture- Storage and Interconnects	NPTEL-AICTE, IIT-Guwahati	Feb to April 2020(8 weeks)
15	Two weeks online FDP on “Python”	Jointly organized by JSS Noida and IIT Bombay, funded by National Mission on Education through ICT, MHRD government of India	22nd June to 4th July 2020 (2 weeks)
16	“FPGA Implementation of Digital Design with Verilog HDL”	Organized by department of ECE, VVCE, Mysuru.	5th to 7th August 2020 (3 days)
17	Domain Specific Accelerators	Workshop, organized by Department of CSE, IIT Guwahati in collaboration with the University of Catania, Italy	18/6/2021, 25/6/2021, 2/7/2021, 9/7/2021
18	Embedded System Technologies for Deep Learning and Approximate Computing	Workshop, organized by Department of CSE, IIT Guwahati in collaboration with the University of Catania, Italy	29/5/2021, 30/5/2021, 5/6/2021, 6/6/2021
19	FDP on Advanced Computer Architecture	NPTEL-AICTE, IIT-Guwahati	15thFeb to 9thApril 2021(8 weeks)
20	ATAL- FDP on “Sensor Technology”	University Institute of Engineering & Technology, Kurukshetra University, Kurukshetra	6/9/21 to 10/9/21
21	INDICON 2021	International Conference, organized by IITG	19-21 December 2021
22	35th International Conference on VLSI Design and 21st International Conference on Embedded Systems (VLSID2022)	International Conference, Virtual event, organized by VLSI society of India	26/2/2022 to 2/2/2022
23	Virtual event, organized by VLSI society of India	Workshop, organized by Department of CSE, IIT Guwahati in association with the University of Essex, UK.	22.02.2022, 23.02.2022 & 24.02.2022
24	ATAL- FDP on Leadership and Excellence	IES's Management College and Research Centre, Mumbai.	21/2/2022 to 25/2/2022

6.c. workshop/ Seminar /Conference Attended (those NOT sponsored by AICTE / ISTE/IETE/TEQIP or any other sponsoring body) : NIL

6.d. PROJECT / Innovations/Patents:

“Urban Intelligent Parking Guidance System Based On Narrowband Internet Of Things (NB-IoT)”, published on 19/02/2021
“System to Monitor Temperature Of Granary Using Narrowband Internet Of Things (IOT)”, published on 12/03/2021
“Sensor based intelligent wearable device to monitor blood glucose levels of a diabetes patient and generate insulin using artificial pancreas”, published on 10/12/2021

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

- Organizing Co-Chair, in ISEA Virtual Presentation Conclave-IVPC 2022, an initiative under Ministry of Electronics & Information Technology, Government of India, organized by IITG.
- Received WOMEN IN ENGINEERING TRACK BEST PAPER AWARD, from IEEE India Council, at IEEE INDICON 2021, 19th -21st December, 2021 at IIT Guwahati.
- Was a part of Organizing committee in 18th IEEE India Council Annual International Conference (INDICON-2021) , Organized by IEEE India council and hosted by IITG, 19th -21st December, 2021.
- TA (Teaching Assistant) for NPTEL course, “Multi-core Computer Architecture – Storage and Interconnects,” Aug-Oct 2021, Ministry of HRD, Government of India.

- Post-Doctoral Fellow in the project entitled 'Information Security Education and Awareness-phase II', in the Department of Computer Science and Engineering, IIT Guwahati, sponsored by Ministry of Electronics & Information Technology, Government of India, from August 2020 to Feb 2021.
- Coordinator for a Two-Days Training Programme on "Advance Software Resources for Digital Library Management and Library Automation" from 13th to 14th December 2021, sponsored by Raja Rammohun Roy Library Foundation [RRRLF] Ministry of Culture, Govt. of India.
- Topper of the NPTEL course, "Multi-core Computer Architecture – Storage and Interconnects," Feb - Apr 2020, Ministry of HRD, Government of India.
- Technical session chair in ISEA Virtual Presentation Conclave-IVPC 2020, an initiative under Ministry of Electronics & Information Technology, Government of India, organized by IITG.