

Dr. Purushottama T L

Affiliation

Assistant Professor, Department of Electronics and Communication Engineering, Siddaganga Institute of Technology Tumkur

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Education

	Degree	Year	Institute	Specialization
1	Ph.D	2023	National Institute of Technology Karnataka, Surathkal	Electronics and Communication
2	M.Tech	2007	BMS College of Engineering, Bangalore	Electronics
3	B.E	2005	Siddaganga Institute of Technology, Tumkur	Electronics and Communication

Professional Experience

	Date (from-to)	Designation	Organization
1	August 2013 to Till Date	Assistant Professor	Siddaganga Institute of Technology, Tumkur
2	December 2012 to July 2013	Assistant Professor	SDM Institute of Technology, Ujjire
3	July 2008 to December 2012	Lecturer	Sri Siddhartha Institute of Technology, Tumkur
4	September 2007 to June 2008	Technical Analyst	Cognizant Technology Solutions Pvt Ltd, Bangalore

(Please fill in reverse order. Current designation should be at the top)

Positions held

- Worked as **Coordinator** in the Controller of Examination office for more than six years.

Affiliations of Professional organizations

- IEEE, Senior Member

- ISTE, Life Member
- International Association of Engineers, Member

Awards and Honors

- Protsahan award by IEEE Communication Society, Bangalore for 2021, 2022, 2023.

Courses Taught

Undergraduate Courses

- Wireless Communication
- MIMO Wireless Communication
- Satellite Communication
- Analog and Digital Communication
- Electromagnetic Fields
- Microwave Engineering
- Radars for Autonomous Driving Cars
- Digital Image Processing
- Digital Signal Processing
- Network Analysis
- Digital Electronic Circuit Design
- Introduction to Electronics
- Basic Electronics

Postgraduate Courses

- Statistical Signal Processing
- Multi-rate systems and filter banks

Research Guidance

Sl. no	Name of the Scholar	Title	Year of completion
1.	Balaji B S	Design of Hardware Acceleration for Multiprocessor Architecture	Ongoing
2.	Sahana V	Design of low noise amplifier for passive radar applications	Ongoing

Research Areas

- RADAR Signal processing
- Antenna Design

- Deep Learning for Interdisciplinary applications

Sponsored Projects

Ongoing Projects:

1. Title: 5G Use Cases Lab
Funding Agency: Department of Telecommunications, Government of India
Amount: 50 Lakhs
Duration: Three Years
Role: Nodal Officer

Publications

Journals

- J. Raghu, T. L. Purushottama, B. Pardhasaradhi, P. Srihari, R. Tharmarasa and T. Kirubarajan, "Comprehensive Track Unswapping for Improved Tracker Performance," in IEEE Transactions on Aerospace and Electronic Systems, 2025.
- A. Chakravarthi Mahipathi, B. Pardhasaradhi, P. Lingadevaru, P. Srihari, J. D'Souza and L. Reddy Cenkeramaddi, "A Survey on Waveform Design for Radar-Communication Convergence," in IEEE Access, vol. 12, pp. 75442-75461, 2024.
- Billa Pardhasaradhi, C. Shilaja, Gopinath S., P. Vasuki, V. Arun, Purushottama TL, "Intelligent Integration: Harnessing Artificial Intelligence for Enhanced Performance and Efficiency in Electric Vehicles", Journal of Electrical Systems, Vol. 20 No. 5s, 2024.
- P. Lingadevaru, B. Pardhasaradhi and P. Srihari, "Sequential Fusion Based Approach for Estimating Range Gate Pull-Off Parameter in a Networked Radar System: An ECCM Algorithm," in IEEE Access, vol. 10, pp. 70902-70918, 2022.
- Parvathi Biradar, Purushottama TL, "Diagnosis of diabetic retinopathy through screening of retinal images", International Journal of Research-Granthaalayah, Vol. 5, Issue 4RACEEE, 58-67, 2017.
- Purushottama TL, Kishore C, "Diagnosis of Diabetic Retinopathy through Screening of Retinal Images" International Journal of Research-Granthaalayah, Vol. 5, Issue 4RACEEE, 92-104, 2017.

Conference Proceedings

- Jyothi, P. Lingadevaru, N. K. N, V. Singh and A. K. Dwivedi, "Design and Analysis of Highly Directive Patch Antennas for CAS using Passive Radars at

5G Frequencies," 2025 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI), Gwalior, India, 2025, pp. 1-5.

- P. K. D N, P. Lingadevaru and S. D. Torvi, "Design of Wide Band MPA at 5G Frequency Band for Indoor Passive Radar Applications," 2024 4th International Conference on Mobile Networks and Wireless Communications (ICMNWC), Tumkuru, India, 2024, pp. 1-4.
- T. Geetharani and P. Lingadevaru, "Empowering the Disabled with Brain-Computer Interface," 2024 First International Conference on Software, Systems and Information Technology (SSITCON), Tumkur, India, 2024, pp. 1-9.
- C. R, J. B S, M. M, P. Keerthana and P. Lingadevaru, "Track Filters for Target Tracking Using mm-wave Radars," 2024 Asia Pacific Conference on Innovation in Technology (APCIT), MYSORE, India, 2024.
- Sateesh Kumar TR, TL Purushottama, "ECG Authentication Reinforced by Pretrained Convolutional Neural Networks," 2023 International Conference on Network, Multimedia and Information Technology (NMITCON), Bengaluru, India, 2023, pp. 1-6.
- Manjula, T. R. Asha, K. S. Jayaramu, Raghu Purushottama, T. L., "Land Use and Land Change Detection of the Ecosystem by Processing Sentinel Images", Data Science and Applications. ICDSA 2023. Lecture Notes in Networks and Systems, vol 821. Springer, Singapore.
- Jayaramu, Raghu and Reddy, G. Surya Kiran and Chinthala, Ramesh and L., Purushottama TL, "Cost Efficient Location Tracking and Health Monitoring System for Soldier Safety," 2023 Global Conference on Information Technologies and Communications (GCITC), Bangalore, India, 2023, pp. 1-4.
- Pardhasaradhi B.;Lingadevaru P.;Bn B.R.;Srihari P.;Cenkeramaddi L.R., "Robust Positioning and Grubbs Outlier Test for Navigation in GPS Spoofing Environment," 2022 IEEE 19th India Council International Conference (INDICON), Kochi, India.
- Lingadevaru P.;Pardhasaradhi B.;Srihari P., "Feasibility of Adopting 6G Frequencies for Transmitter of Opportunity by Passive Radar" 2022 IEEE International Symposium on Smart Electronic Systems (iSES), Warangal, India, 2022,
- P. Lingadevaru, P. Srihari, B. Pardhasaradhi and G. Srinath, "A Conceptual Framework for Knowledge Aided Passive Radar System", in 7th International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCT - 2021) conducted by IEEE Bangalore, 2021.
- P. Lingadevaru, B. Pardhasaradhi, P. Srihari and G. Sharma, "Analysis of 5G New Radio Waveform as an Illuminator of Opportunity for Passive Bistatic

Radar”, in Twenty Seventh National Conference on Communications (NCC-2021) held at IIT, Kanpur, 2021.

- Purushottama TL, Srihari P, “Comparative Analysis on Diverse Heuristic-based Joint Probabilistic Data Association for Multi-target tracking in a cluttered environment” in International Conference on Computational Electronics for Wireless Communications – 2021 (ICCWC - 2021) held at N.I.T., Kurukshetra, 2021.
- Rambabu, Pavan Hegde, Purushottama TL, “Spectrum sensing for Cognitive Radio using USRP and GNU Radio test bed environment”, 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018) held at SVCE, Bangalore, 2018.
- Purushottama TL, “Incorporating web-based resources and simulation tools in teaching and assessment of courses in Electronics and Communication Engineering”, 3rd International Conference on Transformations in the Engineering Education (ICTIEE-2016) held at College of Engineering Pune, January 2016.
- Rajani TS, Purushottama TL, “Denoising of ECG Signal and Feature Extraction using Wavelet Transform”, International Conference on Recent Trends in Signal Processing, Image Processing and VLSI, held at Don Bosco Institute of Technology, Bangalore, May 2015.

Book Chapters

- T.L. Purushottama, S.J. Sheela, S.Y. Sonu, “Deep learning-aided channel estimation for DCSK-based MIMO-STBC systems” Data Science & Exploration in Artificial Intelligence, Volume 1, Year 2025, CRC Press.

Editor/ Reviewer of Journal

- Section Editor, International Journal of Satellite Remote Sensing, STM Journals.

Patents

- Sheela Shankarappa Jaya, Purushottama Thondagere Lingadevaru, Shubha Gangadharappa, Kaggere Veeranna Suresh, Jamuna, Surya Bangalore, Preetham M N, “A novel apparatus, method and system for grading the health condition of a subject”, Medical and Health Sciences, Indian Patent, Published on 2024-10-25.

Invited Lectures, talks and workshops

- Delivered a talk on “Electronics and Telecommunication Engineering careers and cracking GATE Examination” on 16th December 2022 at SSIT, Tumakuru.
- Delivered a talk on "Qualitative overview of passive radars and their applications" at NCET, Bangalore on 10th May 2021.
- Delivered a talk on "Higher Studies, GATE and Placement for ECE students" under SEED (Student Excellence and Empowerment Development) program on 31/12/2021 at SJCIT, Chikkaballapur.
- Delivered a talk on “Electronics and Communication Engineering careers: An Overview” on 18th May 2018 at SDMIT, Ujjire.
- Delivered a technical talk on “Overview of physical layer for 4G-LTE” and conducted hands on session on “GNU Radio for simulation of wireless communication systems” on 10th July 2017 at SSIT, Tumkur.