

DHRUVAKUMAR T

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Education

	Degree	Year	Institute	Specialization
1	Ph.D	2022	NITK, Surathkal	Beyond 5G/6G Wireless technology
2	M.Tech	2026	AMCEC, Bengaluru	Digital Electronics and Communication system
3	B.E	2024	SSIT, Tumkur	Electronics and Communication

Professional Experience

	Date (from-to)	Designation	Organization
1	1-1-2011 to till date	Assistant Professor	SIT, Tumkur
2	04-08-2008 to 31-12-2010	Lecturer	SIT, Tumkur

Positions held

Coordinator for Robotics and Automation Lab (Drone lab)

Coordinator for the Controller of Examination

Affiliations of Professional organizations

- Members of Institute Engineers (MIE)

Courses Taught

Undergraduate Courses

1. Computer Communication Networks	2. Digital Communication
3. Network Security	4. Wireless Communication
5. Digital Signal Compression	6. Advanced Multimedia
7. Digital Electronic Circuits	8. Information Theory & Coding
9. Data Communication and Networking	10. Analog Communication
11. Network Analysis	12. Basic Electronics
13. Communication Systems-I	14. Communication Systems-II
15. Introduction to Python Programming	16. Research Methodology and IPR
17. Universal Human Values	18.

Postgraduate Courses

1. DSP Architecture and Algorithm	2. Data Compression
3. Digital Signal Compression	4. VLSI DSP Architecture

Research Guidance

Sl. no	Name of the Scholar	Title	Year of completion
1	Sreenivasa T V	Design and optimization of microstrip patch antenna for 5G wireless communication systems	On-going

Research Areas

- Intelligent Reflecting Surface assisted Wireless Communication
- Beyond 5G/6G wireless technology
- Drone technology

Sponsored Projects

Ongoing Projects:

1. Title: Aero Vision Drone Lab
Funding Agency: AVPL Company
Amount: 50 lakhs
Duration: Two years
Role: Coordinator
2. Title: To set up the state-of-the-art laboratory for advanced RF, microwave, millimeter wave circuits and antennas design
Funding Agency: VGST, Government of Karnataka
Amount: 30 lakhs
Duration: 2 years
Role: Co-PI

Completed Projects:

1. Title:
Funding Agency:
Amount:
Duration:
Role:

Publications

Journals

- DhruvaKumar, T., Chaturvedi, A. Ergodic Capacity and Outage Probability Analysis for Multiple Intelligent Reflecting Surface Assisted Wireless Networks. *Wireless Pers Commun* 139, 2551–2576 (2024).
<https://doi.org/10.1007/s11277-024-11725-9>
- Dhruvakumar T, Chaturvedi A., “Intelligent Reflecting Surface assisted millimeter wave communication for achievable rate and coverage enhancement”, *Vehicular Communications*. 33(1), p. 100431, Jan- 2022.
<https://doi.org/10.1016/j.vehcom.2021.100431>
- Suman T, Dhruvakumar T, “Classification of paddy leaf diseases using shape and color features”, *International Journal of Electrical and Electronics Engineering (IJEET)* (ISSN 2321-2055), Volume-07, Issue-01, Jan-June 2015.

Conference Proceedings

- Neha B S, Nidhi S Rai, Shilpa K V, Shravani T R, Sreenivasa T V and Dhruvakumar T "Human blockage modelling in mmwave link," *2025 International Conference on Smart Systems for applications in Electrical*

Sciences (ICSSES), Tumakuru, India, 2025, pp. 1-6, doi: 10.1109/ICSSES64899.2025.11009610

- T. Dhruvakumar, R. Manasa, P. Monika, N. Gowthami and U. M. Thunga, "Performance analysis of multi-carrier scheme for 5G communication system," *2024 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India, 2024, pp. 1-6, doi: 10.1109/ICSSES62373.2024.10561412.
- T. Dhruvakumar, A. Ojha, A. Raj, V. Rani and Y. Kotian, "Intelligent Reflecting Surface assisted V2X Communication," *2024 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India, 2024, pp. 1-6, doi: 10.1109/ICSSES62373.2024.10561270.
- DhruvaKumar T, Bhavana T M, Dhanushree K, Govardhan K H and Hemanth D, "Comparative Study of 5G Wireless Technologies", *International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India. 2023; 1-6. doi: 10.1109/ICSSES58299.2023.10200689
- Tejas K S, Udaykumar M, Varun R, Suhailkhan and DhruvaKumar T, "Intelligent Reflecting Surface assisted wireless communication for coverage enhancement", *International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India. 2023; 1-6. doi: 10.1109/ICSSES58299.2023.10200009.
- Dhruvakumar T, "A practical approach of teaching information theory and coding course using think-pair-share mechanism", *International conference on Transformations in Engineering Education* held on January 6-8, 2017, at Vardhaman college of Engineering, Hyderabad.
- Suman T, Dhruvakumar T, "Classification of paddy leaf diseases using shape and color features", *International conference on recent innovations in science, engineering and management (ISBN:978-81-931039-4-4)*, held on 30th May 2015, at YMCA, Connaught place, New Delhi.
- Meghashyam K. and Dhruva kumar T, "STFT View of Speckle Denoising in Ultrasound Images, KSIT, Bangalore, 2012.

Editor/ Reviewer of Journal

- IEEE Transactions on Communications
- Telecommunication systems- Springer
- RECENT ADVANCES IN COMPUTER SCIENCE AND COMMUNICATIONS

Invited Lectures, talks and workshops

- IRS/RIS assisted wireless communication system, FDP at SIT, Tumkur on 19/09/2024