

Research Interests

Information and coding theory and applied probability, particularly with communication systems

Education

EPFL, Ph.D. in Computer and Communication Sciences (EDIC fellowship)	Lausanne, Switzerland
Semester project advisor: Prof. Emre Telatar; CGPA: 6.0/6.0	Sep. 2022 – Present
Indian Institute of Technology Bombay, B.Tech. in Electrical Engineering	Mumbai, India
With Honors in Electrical Engineering and Minor in Mathematics; CGPA: 9.60/10	Jul. 2018 – May 2022

Publications

Conference papers:

- S. Sharma, A. G., D. Jeff, *et al.*, “Micro-doppler parameter estimation using variational mode decomposition with finite rate of innovation,” in *2022 IEEE International Conference on Signal Processing and Communications (SPCOM)*, 2022 [🔗](#)
- S. Sharma, A. G., N. P. Rakhashia, *et al.*, “Theoretical analysis of an inverse radon transform based multicomponent micro-doppler parameter estimation algorithm,” in *2022 National Conference on Communications (NCC)*, 2022 [🔗](#)

Preprints:

- F. Z. Faizal, A. G., M. K. Hanawal, *et al.*, “ICQ: A quantization scheme for best-arm identification over bit-constrained channels,” *arXiv:2305.00528*, 2023 [🔗](#)

Academic Achievements

- Secured **grade 6.0** (exceptional performance, over 95%) in all (2) courses taken at EPFL [2022 – present]
- Awarded an IITB **Institute Academic Prize** for being the second-best academic performer in the EE department [2020-21]
- Received an IITB **Undergraduate Research Award** (URA01) for work done in Radar Signal Processing [2020]
- Secured **AP grades** (top 2%) in two courses at IITB - Digital Communications, Data Analysis [Spring 2021, Fall 2019 resp.]
- Awarded the **Urvish Medh Memorial Prize** for being the highest-ranked student in the EE department, IITB [2018]
- Achieved **All-India Ranks** of **43** in **JEE(Advanced)** and **55** in **JEE(Main)** [2018]
- Selected for the **Kishore Vaigyanik Protsahan Yojana** fellowship (in Basic Sciences, initiated and funded by IISc and the Department of Science and Technology, Government of India) by securing an **All-India Rank** of **35** [2016]
- Awarded the **National Talent Search** scholarship (NTS) by the National Council of Educational Research and Training (NCERT), offered to around 1000 students all over India [2016]

Mentoring and Responsibility

- Teaching Assistant for Principles of Digital Communications at EPFL [2023]
- Teaching Assistant for UG calculus and electromagnetism courses at IITB (4 times) [2019-22]
- Institute Student Mentor for first-year undergraduates at IITB [2021-22]
- Mentor for Summer of Science, IITB (signal processing, coding theory, information theory) [2020, 2022, 2023]
- Class Representative for first-year, B.Tech. in EE, IITB [2018-19]

Extracurriculars

- Completed an intermediate course in Table Tennis under the National Sports Organization at IIT Bombay [2018-19]
- Conferred the title of Best All-Rounder on graduation from Ryan International School, Bangalore [2016]
- Elected to the Student Council at Ryan International School as the Deputy Education Minister [2014-15]
- Completed 19 credits in electronic keyboard from the Trinity College of Music London [2007-13]