KANISHAK VAIDYA

Senior Engineer at Qualcomm, Wireless Research and Development

E-mail: kanishakvaidya@gmail.com **Website:** kanishakvaidya.github.io/phd-progress/ **Location:** Bengaluru, India

Education

- **PhD** from IISc Bangalore. Nov 2023
  Specialization: Electrical Communicaion. Privacy of distributed systems.
  CGPA: 8.9 / 10
- **M.Tech:** from IISc Bangalore Jul 2023
  Specialization: Signal Processing.
  CGPA: 8.9 / 10

Academics and Scholarships

- Granted **PMRF**: January 2020
- GATE (EC) 2018: **AIR 10. GATE Score: 1000**
- **Junior Mathematical Olympiad:** 2011. AIR 30

Technical Strengths

- **Programming:** Python, Octave/ MATLAB, C/C++, Bash scripting
- **Softwares and Modules:** PyTorch, PyG, Tensorflow, OpenCV, LTspice, LabView, Arduino IDE, SimuLink
- **Miscellaneous:** Linux, SSH, git, LaTeX, HTML/CSS, vim, emacs

Professional Skills

- Research and analysis
- Efficient team oversight and coordination
- Abstract and critical thinking
- Problem solving

Industrial Trainings

- **BSNL Mandi:** 45 Day industrial training on *telephone exchange*, *main distribution frames* and *switching*.
- **RWIT:** Workshop on wireless technologies, IoT and 5G
- **INMOTC:** KV Dhaula Kuan, Delhi. Focus on Complex analysis, Number theory and geometry

ABOUT ME

As a Senior Engineer in Wireless Research and Development team at Qualcomm, Bangalore, my work is on modern communication technologies. Being a PhD from IISc, ECE department, I have strong background in signal processing, coding, and machine learning and I've also worked on image processing and computer vision projects.

EXPERIENCE

Qualcomm, Bangalore

Feb 2024 - Present | Senior Engineer, WRD Team.
Focus on modern wireless technologies like 5G and digital twin. ML based predictions on wireless networks for better resource allocation.

IISc, Bangalore

Jan 2020 - Jul 2023 | Teaching as PMRF TA.
As part of PMRF responsibilities, taught GATE EC related courses at various institutions.

RECENT PUBLICATIONS

- K. Vaidya and B.S. Rajan, **"Multi-Access Cache-Aided Multi-user Private Information Retrieval"** in IEEE Transactions on Communications, doi: 10.1109/TCOMM.2024.3375810.
- K. Vaidya and B.S. Rajan, **"Cache-Aided Multi-User Private Information Retrieval using PDAs"** IEEE TComm, https://doi.org/10.1109/TCOMM.2023.3325473.
- K. Vaidya and B.S. Rajan, **"Private Information Delivery with Coded Storage,"** IEEE ISIT 2022, Espoo, Finland, 24 June – 2 July 2022.
- **Other publications**: kanishakvaidya.github.io/phd-progress/publications

PROJECTS

- **Communications:** OFDM simulation and analysis on Simulink and MATLAB
- **Communications:** Created python modules for finite field operations
- **Computer vision**: Camera rotation and translation from images on python
- **Hobby projects:** Maintain a Linux distribution and package repository
- **Other projects:** kanishakvaidya.github.io/phd-progress/projects

KEY COURSES

Digital Communication	Error Control Coding	**Matrix Theory**
Wireless Communication	**Random Process**	Detection and Estimation
Space-Time Coding	Information Theory	**Optimization theory**
Computer Vision	**Machine Learning**	Digital Image Processing