Vineetha Yogesh

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EDUCATION

Degree/ Examination	Board/University	Percentage/Grade
Ph.D.	Indian Institute of Science (Feb 2021 - Present)	8.9
M.Tech (Communication Systems)	National Institute of Technology, Tiruchirappalli (Aug 2016 – Jul 2018)	9.53
B.E. (Electronics and Communication)	Visvesvaraya Technological University, Belgaum (2010 - 2014)	85.08
Class XII	Karnataka State Board (2010)	94.17
Class X	Central Board of Secondary Education (2008)	86.8

RESEARCH DETAILS

- **Research Supervisor: Dr. A Chockalingam,** Senior Professor, Department of Electrical Communication Engineering, IISc Bangalore**.**
- **Area of Research: Wireless Communication (PHY layer)**
  Currently working on delay-Doppler domain signal processing for orthogonal time frequency space (OTFS) modulation.

WORK EXPERIENCE

- **Qualcomm India Private Limited, Hyderabad,** as RF Engineer in IPS (Integrated platform solution) team from July 2018 - July 2020. Responsibilities handled include:
  - Understanding the architecture, block diagram and RF performance of the mobile Radio frequency front-end (RFFE) starting from Wafer-level transmitter receiver (WTR) integrated circuit chip.
  - Design verification testing of modem test platform (MTP) for various technologies in mobile communication including critical parameters for performance analysis under CDMA, TDS-CDMA technology.
  - Involved in end-to-end design until tape-out of an MTP, which included block diagram development and analysis of RFFE, carrier aggregation (CA) combo analysis for supporting desired regions, schematics, PCB stack design, component placement, PCB RF layout design and performance analysis.

ACADEMIC PROJECTS

- **Particle Swarm Optimization based HMM parameter estimation for spectrum sensing in cognitive radio systems,** under the guidance of **Dr. E.S.Gopi,** Associate Professor, ECE department, NIT Trichy

- Implemented particle swarm optimization followed by novel empirical match algorithm for spectrum estimation in cognitive radio networks.

- **Investigation of Empirical Match Algorithm for latent sequence estimation in HMM and its applications in 5G Technology,** under the guidance of **Dr. E.S.Gopi,** Associate Professor, ECE department, NIT Trichy
    - Studied and compared the performance of novel empirical match algorithm and Viterbi algorithm for estimating the underlying Markov process under various use cases.

RELEVANT COURSEWORK

- **Ph.D. Coursework**:
    - **Completed**: Random Processes, Matrix Theory, Digital Communication, Multiuser Detection, Wireless Communication, Time-Frequency Analysis, Detection and Estimation Theory.
- **M.Tech Coursework**: Advanced Signal Processing, Advanced Digital Communication, Broadband Wireless Technologies, Pattern Recognition and Computational Intelligence.

PUBLICATIONS

- Vineetha Yogesh, E S Gopi, Shaik Mahammad, “Particle Swarm Optimization based HMM parameter estimation for spectrum sensing in Cognitive Radio Networks, Computational Intelligence for Pattern Recognition”, Springer Verlag 2018.

ACHIEVEMENTS AND RECOGNITION

- Second topper in M.Tech at NIT Trichy.
- Received Qualstar (recognition) for good performance at Qualcomm, Hyderabad.