

# SUHAIL FARHAAN SHAIK

International Institute of Information Technology, Bangalore

@ suhail.farhaan@iiitb.ac.in    (+91) 9542403814    Kurnool, AP, India    suhail-farhaan-shaik    Suhail Farhaan Shaik

## INTERNSHIP

Research Internship at NIT Tiruchirapalli  
Training and Skill Internship on OTFS for high mobility applications in B5G and 6G wireless communications

June 2023 – July 2023

- Developed mathematical models to analyze IRS-assisted OTFS systems, evaluating performance gains and limitations for improved wireless communication in future networks.

## PROJECTS

Relay assisted Communication(Academic Project)  
Matlab,Overleaf

January 2023 – May 2023

- Analyzed the performance of a two hop communication system equipped with AF relay in Rayleigh/Rician fading environments.
- Studied the effect of Relay selection due to outdated channel estimates on DF relays, when operating over Nakagami-m fading channels.

Practical Pulse-Shaping Waveforms for Reduced-Cyclic-Prefix OTFS  
Matlab,Overleaf

August 2022 – December 2022

- Analyzed and compared the error performance of OTFS with rectangular and prolate spheroidal waveforms using a block-circulant matrix decomposition, showed a tradeoff between out-of-band radiation and BER.

Plant Disease Detection using Matlab and Arduino  
Matlab,Arduino

January 2022 – June 2022

- Developed a Digital Image Processing based technique with the help of K-means Clustering and multi-SVM algorithm for fast and accurate disease detection of plant using MATLAB, and an additional hardware is developed in order to spray corresponding pesticide for the diseased plant.

## PUBLICATIONS

**Conference Proceedings**

- S. F. Shaik, S. Soujanya, P. Singh, and E. Sharma, "Two-Fold Physical Layer Security for OTFS-aided RIS communication," in *Proceedings of the 25th Wireless Communications and Networking Conference(WCNC)*, Dubai UAE, 2024.

## RELEVANT COURSEWORK

- Mathematics for Machine Learning
- Mobile Computing
- Wireless Communication
- Fundamentals of Radar Sensing
- Detection and Estimation Theory
- Applied Optimization for Wireless Communication

## EDUCATION

Masters by Research in NCSP  
International Institute of Information Technology Bangalore  
Aug 2022 – Present    CGPA : 3.28/4.0

B.Tech in Electronics and Communication  
Mahamtma Gandhi Institute of Technology  
June 2018 – July 2022    CGPA : 7.28/10

Intermediate (MPC)  
Ideal Junior College  
June 2016 – May 2018    PER : 96.30%

Class X in SSC  
Sri Chaithanya Techno School  
April 2016    CGPA : 10/10

## TECHNICAL SKILLS

Matlab    C/C++    Python    Windows  
Linux

## CERTIFICATION

- 5G for Everyone - Coursera(Qualcomm academy)
- Microelectronics - NPTEL

## STRENGTHS

Hard-working    Problem-solving  
Teamwork    Adaptability

## LANGUAGES

English    ● ● ● ● ●  
Hindi    ● ● ● ● ●  
Telugu    ● ● ● ● ●

## ACHIEVEMENTS

Awarded with the student travel grant from IEEE ComSoc to present a paper at its flagship conference IEEE WCNC 2024.