

## **Job Title: Senior Engineer**

### **Job Summary:**

We are looking for experienced and technically strong Senior Engineers to work on the design and development of a Massive MIMO MAC scheduler within an Open RAN (O-RAN) architecture. The role involves hands-on work on Layer 2 scheduling algorithms, nFAPI interface development, and system-level validation targeting 5G-Advanced features for 32TR systems.

### **Key Responsibilities:**

- Design and implement a MAC scheduler for eMBB traffic, incorporating 5G-Advanced features such as dynamic TDD, semi-persistent scheduling (SPS), configured grants (CG), and MU-MIMO pairing for 32TR systems
- Develop and integrate a complete nFAPI interface stack for MAC-to-high-PHY communication, supporting virtualized O-DU deployments and emulation of high-PHY responses
- Optimize scheduler algorithms targeting key performance indicators such as spectral efficiency gains and fair throughput across eMBB UEs
- Validate the scheduler in realistic scenarios including eMBB streaming workloads and O-RAN testbed integration
- Guide junior engineers, project associates, and research scholars on the team

### **Required Skills:**

- Strong understanding of 5G NR Layer 2 protocols, including MAC scheduling, resource allocation, and RLC/PDCP interactions
- Hands-on experience with MAC scheduler design and/or PHY abstraction layer interfaces in LTE/5G systems
- Familiarity with nFAPI or FAPI interface specifications for MAC-PHY communication
- Experience with MU-MIMO scheduling, dynamic TDD, and related 5G-Advanced features
- Proficiency in C/C++ programming (critical requirement)
- Familiarity with Linux systems, real-time constraints, and multi-threaded software design
- Experience with O-RAN architecture and O-DU/O-CU functional splits is a strong advantage
- Exposure to simulation and validation frameworks for RAN protocol stacks

### **Experience:**

8+ years of experience preferred.

### **Educational Qualifications:**

- Bachelor's or Master's or PhD degree in Electronics, Telecommunications, Computer Engineering, or a related field. FRESHERS ARE NOT ALLOWED.
- Interested candidates may email their resumes to [comet@iiitb.ac.in](mailto:comet@iiitb.ac.in) and mention the role for which you are applying clearly in the subject of the email.