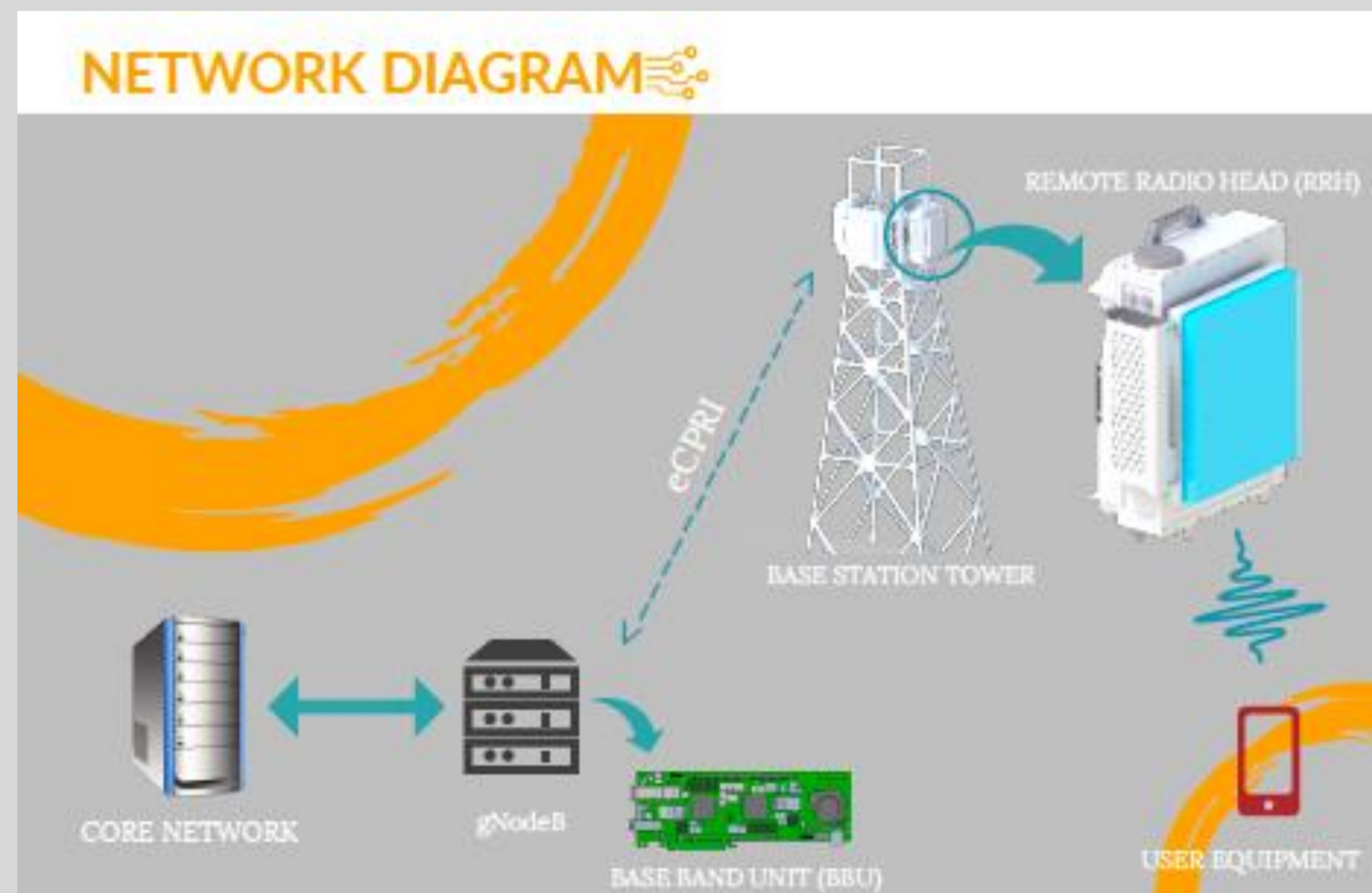# 5G+/6G Research Lab IIT Kanpur is Recruiting

We are hiring wireless algorithm designers, hardware engineers, embedded programmers for "5G and Beyond Wireless Research and Standardization Project"

About the project: Ministry of Electronics and Information Technology (MeitY) has funded Next Generation Wireless Research and Standardization on 5G and Beyond project to encourage Indian academia and industry to contribute to the 5G+/6G standards. The goal is to generate IPR and then take those IPRs as contributions to the 5G+/6G standards, which can give a head start in developing 5G+/6G telecom products.

Role of IIT Kanpur: IIT Kanpur has already designed a 5G radio access network in collaboration with IIT Madras and SAMEER. The current project takes the next step of contributing IPR to the 5G+/6G standards by performing realistic system level simulations and by validating them in this network.

5G Testbed designed at IIT Kanpur

- **Scope of work:**
- **5G+/6G PHY layer algorithm development for**
  - Massive MIMO and Millimeter Wave systems
  - Non-orthogonal multiple access (NOMA) systems, unmanned aerial vehicles (UAVs)
  - Cooperative and full duplex communication systems
  - High-speed vehicular communication
- **System level analysis of 5G+/6G algorithms**
  - Analyze performance of aforementioned algorithms by performing realistic system-level simulations
  - Use existing system level simulators and enhance them with the novel 5G+/6G technologies
- **Hardware Development**
  - Analog and digital board testing and integration
- **FPGA programming**
  - Porting of 5G+/6G physical layer algorithms on FPGA
  - Real-time testing of algorithms on the 5G testbed
  - Embedded design of hardware interfaces
- **Desirable qualification: B.Tech/M.Tech/MS/PhD in**
  - Electronics and Communications Engineering
  - 0-8 years of experience in related areas
- **Location/Duration: IIT Kanpur/03 year**
- **Remuneration: Commensurate with skills**
- **Contact: rohitbr@iitk.ac.in**