

## CU Denver: New PREP Graduate Student Opportunity

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**NIST ORG (Div/Group):** RF Technology Division- Shared Spectrum Metrology Group, 672.05

**CITIZENSHIP STATUS:** The candidate must be eligible to work in the U.S.A. by time of application

**START DATE:** As soon as practical

**TITLE OF PREP POSITION:** 672.05 Wireless Coexistence Systems Researcher

### SUMMARY OF THE POSITION:

The shared-spectrum metrology group in the RF Technology Division at NIST is seeking a PREP graduate student to perform research with staff and other PREP associates on the subject of wireless coexistence systems. The candidate will mainly support the measurement work of wireless coexistence systems, and support the development of spectrum sharing theory, metrology techniques, and industrial standards. The work will involve experimental design, implementation, and data post-processing of wireless coexistence systems, such as 4G unlicensed LTE, 5G New Radio (NR) and beyond, mmWave communication, and WLAN. The work will also involve setup and programming of software defined radio (SDR), commercial off-the-shelf (COTS) device, spectrum analyzers, network analyzers, CBRS device, and 4G and 5G base-station emulators (such as eNodeB and gNodeB) to support coexistence test at multiple frequency bands and systems.

### KEY RESPONSIBILITIES:

Job duties include but are not limited to:

- Being highly self-motivated and implementing research and experiments as guided by the Group and Project Leaders;
- Support the preparation of technical documents for publication in internal and external venues (such as IEEE journals and conferences);
- Support the preparation of program and project plans and proposals.

### REQUIREMENTS:

- The candidate shall be a graduate student in electrical engineering, computer engineering or a related STEM discipline.
- The candidate must be eligible to work in the U.S. by time of application. Preference is that the applicant is a U.S. citizen or a permanent resident of the U.S.

### PREFERENCES:

- Background in designing and implementing RF experiments based on system requirements, and have some research interest or experience in one or more of the following areas:  
Wireless communication, Wireless networks, Signal processing, Electromagnetic compatibility (EMC), Hardware programming and radio frequency testing.
- Experience and proficiency in computer programming software, such as Python, C++, MATLAB, LabView, Visual Studio, and others.
- Good teamwork and communication skills, and proactive in carrying on research tasks.

### CATEGORY

Please indicate the category of researcher:

- Fulltime at UCD - Graduate status in good standing

**For further inquiry contact [hamid.fardi@ucdenver.edu](mailto:hamid.fardi@ucdenver.edu) UCD PREP Coordinator**