**FACULTY MENTOR**

Mercier, Patrick

**PROJECT TITLE**

Low-power backscatter WiFi/Bluetooth communications

**PROJECT DESCRIPTION**

The power consumption of wireless communications can be a bottleneck for many emerging applications in the Internet of Things, wearables, medical devices, and more. UCSD has pioneered innovations in backscatter communications, and is well positioned to make further advances to state of the art. This project may involve some discrete circuit design, firmware design on a smartphone, and even potentially some IC design.

**This project will be in person.**

**INTERNS NEEDED**

* 2

**PREREQUISITES**

* One of: 1) PCB design experience; 2) embedded programming; 3) firmware coding; 4) IC design.

**FACULTY MENTOR**

Mercier, Patrick

**PROJECT TITLE**

Smart wearable systems

**PROJECT DESCRIPTION**

Wearable devices offer great promise to monitor a host of physiological signals in the body in real-time. There are many integration and experimental challenges remaining. Joining this team will help build real prototypes and test them in the lab and under real-world conditions.

**This project will be in person.**

**INTERNS NEEDED**

* 2

**PREREQUISITES**

* One of: 1) PCB design experience; 2) embedded programming; 3) firmware coding; 4) IC design.