LESA Center URP Opportunity

Title: Smart Conference Room (ROS hardware & software integration)
Location: @LESA, RPI
Type: URP
Duration: Spring 2019 (possible summer 2019 continuation)
# of Positions: 2

Description / Responsibilities
The Smart Conference Room is a LESA testbed facility that is utilized by LESA’s faculty & graduate students in the integration of sources (LED lighting), sensors (i.e., color, time of flight, thermal, environmental) and advanced control systems to explore research areas in cognition, building management systems, and occupancy tracking. The control infrastructure of the Smart Conference Room utilizes ROS (Robot Operating System).

The current URP project is focused on integrating new sensor prototypes (developed in-house at LESA) into the smart conference room system architecture. This would include:

- Reviewing existing ROS control/communication architecture
- Installing Sensor Hardware
- Developing code to integrate the new sensors into the existing ROS architecture
- Achieving reliable raw data output stream
- Exploring integration of data analysis algorithms (being developed separately)

This effort is led by our Sr. Research Engineer, Dr. Arunas Tuzikas.

Applicant Requirements

- Demonstrable python programming proficiency
- Knowledgeable in object-oriented programming
- Working knowledge of python libraries
- Good communication skills; ability to work as part of a team
- Familiarity with ROS is preferred
- Reliable availability for 6-10 hours per week

Interested students, send your resume & cover letter to LESA no later than Friday 1/18.
Send to:
Michelle Simkulet simkum@rpi.edu