Transformational Labs for Mechatronics Education & Research

Date: September 25, 2018, *Location*: Sierra Hall 1121 *Time*: 6pm *Speaker*: Amirpasha Javid, Quanser

Challenge

The global engineering academic community is witnessing an explosive growth in the number of programs and courses in mechatronics. By its nature, a mechatronics program relies heavily on hands-on experiences and labs. Microprocessor programming, sensor integration, or hobby robotics are all very typical kinds of labs that many institutions have introduced. A common lab sequence sees students programming hobby microprocessor boards and then connecting them to simple sensors to operate small motors, lights or

other components. Because of the use of hobby-grade components, often the essential learning challenge becomes the programming as opposed to the system, in addition to the programming. As such, in a truly transformational education, student must be provided with high-fidelity platforms that support a more realistic or complex applications.

Program

The goal of this presentation is to introduce Quanser's unique mechatronic lab solutions and how they can take students from motivating first steps through to fully integrated systems, and prepares them to take on high-fidelity mechatronic application and design challenges. The presentation will also cover how the same solutions have been used by prominent institutions to conduct research in mechatronics sub-domains such as Robotics, Autonomous & Unmanned Vehicles, Multi-agent Systems and Internet of Things (IoT).

















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