SDP07 Patron Queuing System (PQS) Call for Engineers

The PQS represents an opportunity for SDP07 EEs and CSEs to hit the ground running with a proven technology for an everyday-real-world application.

Needs

- reduced cost and improved infrared motion detectors built in-house
- incorporation of other sensor types
- CGI and SHA/… support for PQS Server side software
- Controller driver with robust sensor handler
- Data analysis and presentation tools for real time and post processing
- Setting up at real application places such as the bursar's office or "hangers"
- Other…

Background

Professor Weibo Gong, Department of Electrical & Computer Engineering at University of Massachusetts Amherst, envisioned reducing time spent waiting in line by checking a web page before committing to traveling to a possibly congested destination.

The Web Enabled Patron Queuing System (PQS) *senses and assesses* the *count of persons* present locally – at an establishment, work site, or other - and *automatically uploads data*, in real time, to a central location on the internet. The data then may be *presented to the public via a web page* or analyzed for logistical and budgetary support.

The PQS allows the *centralized aggregation of data* collected from *geographically separated sensor installations*. A PQS node joins a local WIFI network and then connects with the PQS Server.

Team Gong SDP06 successfully implemented the core subsystems of the PQS. Now is the time to advance each of these subsystems and expand the effort and scope of customer creation: for cost minimization; improved sensor accuracy; robustness of sensor type, controller logic, and server function; data analysis; etc.