Project Proposal

The project is an integral part of the Internet of Things' course. The project is meant to be a substantial independent effort for developing an IoT application or system that solves a real-world challenging problem incorporating the material studied in class. Students will apply the (technical) knowledge acquired in the course throughout this group project. Each group should pick an area that is of an interest to the members of the group and will have a significant and innovative contribution to the overall design and implementation of this course project. The design and implementation of the course project application must utilize many of concepts and IoT technologies and protocols presented throughout this course. You may use any development tool and/or programming language for implementing and coding this project. The project prototype needs to involve the hardware kits provided for this course.

Proposed Idea and Initial Design of Application

Submit a one-page document (between 400-800 words) that outlines the main idea and the initial design of your application or system. Choose an idea that requires the use of IoT approaches and utilizes a Level 4 or above. In particular, your IoT application or system should exhibit the use of IoT technologies at the broad level and should not be limited to one device or node. Hence, it is important that the project be of a level of complexity and scale such that it is feasible and doable by the end of the quarter. You can consult with the instructor to get an approval for the project idea before starting on the coding and implementation. Some of the elements to consider when grading this project will include:

a) how compelling is the overall idea of the project?
b) how useful is the system and does it solve a challenging real-world problem?
c) how innovative is the project idea?
d) level of complexity of the system
e) the overall quality of the architectural design
f) how different the idea presented when compared to potentially existing commercial applications or systems;
g) the impact and depth of IoT concepts being applied;
h) how well you have applied the various IoT technologies and concepts to the idea being presented?

The project proposal should include the following:

a) Project title
b) Group name (should be reflective of the proposed idea)
c) Project description (should address the above-mentioned elements)
d) A list of components that you would like to interface with the RPi (should be as detailed as possible)

Poster Presentation, Demo/Prototype and YouTube video

Final Project Submission

Project Milestones

- Friday April 13 — Submit Project Proposal (via Canvas → Project – Proposal)
- Monday April 30 — Project Progress Report 1 (1 page)
- Monday May 14 — Project Progress Report 2 (1 page)
- ?????? — Presentations and Demos.
- Friday June 1 — Final Project Submission.