Lecture 8

Potential Projects Spring 2018
Video from Youtube

• Watch 22 mins video on IDEO shopping cart
• https://www.youtube.com/watch?v=Td2DAjoJsdQ
Potential Projects

1. *Pet Health Band*: wearable health band for dog to monitor and record vital signs.

Objective:

Design of dog collar and other wearable things to integrate them for monitoring, recording, and retrieving vital signs seamlessly in stand alone handheld devices.

Objective:
Design and implement robust greenhouse IoTs to monitor, maintain its environment remotely and controlled through the use of Internet.

Note: Design/development in the lab and implementation/demonstration in the field in actual small greenhouse already available.
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3. Drone controlled Asset Management: Use of drone to monitor assets in a warehouse.

Objective:
Design and demonstrate a drone based asset monitoring system in warehouse and effectively communicate with server in real-time.
4. Smart Aqua phonic Gardening: Integration of IoTs with an aqua phonic garden for plant monitoring and nutrition control.

Objective:
Design an aqua phonic gardening system equipped with IoTs for monitoring plant intakes and growth benefits.
5. EDA Fingerprinting Device: Monitoring Electrodermal activities (EDA) using dry electrodes.

Objective:
Design/implement fingerprinting device to monitor ED activities in 20-30 that will be useful in healthcare applications.

Note: This project would be led by Dr. Song and another faculty in health science. The team must sync with the class activities.
6. Smart Security System (S3): Design and demonstrate a smart security system for home/office.

Objective:
Design and demonstrate a smart security system by integrating appliances and state-of-the-art IoTs.
7&8. Projects suggested by any team if approved.

Objective: Reasonable project ideas that meets class objective and approved by the instructor.

In case such projects are not coming up, the back up projects will be suggested next week or repeat projects can be taken from the existing list.