Remote Urban Farming Analytics for Sustainable and Profitable Urban Farming in Detroit

Joanne Guan  James Van Wagnen  Diana Diaz  Javad Roostaei  Dr. Yongli Zhang

1. Opportunity and Significance
- Low-Cost and Ubiquitous Sensors and Website creation
- Connection to Internet
- Access to the local supply and marketing network
- Increase efficiency
- Increase profitability and sustainability of urban farms
- Community Engagement

2. Technical Objectives
The objective of the project is to present a low-cost Scalable IoT sensor package to allow Detroit urban farmers to remotely monitor their crops
- Low-cost compared to other sensors in market
- User-friendly interface and deployable
- Capable to transmit data through internet and store data on the GE Predix, AWS cloud to monitor crop conditions
- Make the Detroit Urban Farming Sustainable

3. Related Work and State of Practice
- Edison Board
- pH
- T
- Soil Sensor
- Soil Moisture Sensor
- Pump

4. Technical Approach, Accomplishments and Results
- Water, Temp., Light Sampling
- Our Webpage
- Fig3. Sensors Experiments
- Fig4. Early Sensor Prototype
- Wayne State University Students
- Detroit Urban Farmers
- Detroit Farming Lands

5. Next Steps for Development and Test
- Lab Work and Website Development
- Field Work
- Community Engagement
- Commercialization

6. Commercialization Plan
- Packages Preparation: $200
- Data Server Storage: $15
- Operational Cost: $0 - Varied

3 Phase Plan
- Phase I: Idea submission, development, and pitch
- Phase II: Research and development completion
- Phase III: Platform implementation, data mining, testing, prototype finalization, final reports for 2nd fundraiser

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