PennState

MATERIALS VALLEY

312 Agricultural Engineering
Building

Dr. Richard Voyles

Professor of Electrical Engineering Technology,
Purdue University

IoT from Farm to Table – Precision Animal Agriculture and Smart Tupperware

"The kitchen is the nerve center of most modern homes so it has become a focal point for home automation through internet-of-things (IoT) technology. Yet, IoT is still in the formative stages in the consumer world and many of the IoT "advancements" aim for convenience and entertainment value. Production systems have different aims, however, and IoT – as distinct from traditional data acquisition -- is struggling to find true relevancy in most realms of manufacturing. Agriculture, on the other hand, is expanding rapidly into remote sensing technologies and is closing the loop on performance in the burgeoning field of "precision agriculture" which has parallels to both home automation and manufacturing. But the field of "precision animal agriculture" is distinctly different – unlike a grain of wheat or an ear of corn, humans can have deep social concerns for individual animals. Precision animal agriculture spans the gap between rigorous production systems and consumer markets in a way that is perfectly positioned for an explosion of IoT technologies.

This talk will overview the nexus of these fields through the lens of the research projects in the Collaborative Robotics Lab of Prof. Voyles and some of the diverse projects of his collaborators. From Smart Tupperware to disaster robotics to sediment sampling and drones that touch, Precision Animal Agriculture affords new synergies that will help define what IoT can truly become."

Monday, July 23rd 2018 1:45-3:15pm

For more information, please email Jennifer Leedy at jsl226@psu.edu .