Advanced Technologies for Production Systems  
Graduate Opportunities  
at  
The University of Tennessee

Overview:
The goal of the advanced crop production technology team is enhancing production efficiency and profitability through the development, adaptation, and implementation of cutting-edge technology. Areas of emphasis include development of sensors and control systems for production equipment, integration and interpretation of geo-spatial information for improved crop management, and implementation/evaluation of new machinery technology. Resources include an advanced technologies laboratory, electronic design and fabrication shop, and a precision machine shop. Graduate assistantships are currently available for qualified and highly motivated applicants.

Project Areas:

Sensor Development
- Development of control systems for targeted placement of seed protection
- Development and application of ground-based spectral sensing technology
- System modeling of modern agricultural production equipment
- Rapid sensing and assessment of soil variability for site-specific field management
- Development of a combine-mounted corn plant population measurement system
- Development of laboratory standards for dynamic testing of variable rate fluid controllers
- Evaluation of operator feedback row-guidance systems
- Development of autonomous machines for cropping systems

Spatial Modeling

Machine Automation

Qualifications:
Qualified applicants will have a B.S. or M.S. in agricultural, mechanical, civil, electrical engineering, or engineering technology. Knowledge of agricultural production systems is beneficial. Experience in machine design, electronics, and computer programming is desirable.

Contact Information:
John Wilkerson (wilkerj@utk.edu), William Hart (whart@utk.edu), or Henry Moody (fmoody@utk.edu) at The University of Tennessee, (865) 974-7266.