

Project: Leveraging Technologies to Enhance Rural Alabama's Leading Agricultural Industries

Auburn University Senior Faculty:

- Dr. Oladiran Fasina, Professor and Department Head of Biosystems Engineering
- Dr. Greg Harris, Professor, Industrial and Systems Engineering and Director of the Interdisciplinary Center for Advanced Manufacturing Systems (ICAMS)
- Dr. William Dozier, Professor and Department Head of Poultry Science
- Dr. Mykel Taylor, Associate Professor and ALFA Endowed Eminent Scholar, Department of Agricultural Economics and Rural Sociology
- Dr. Greg Purdy, Assistant Professor, Department of Industrial and Systems Engineering
- Mr. Marc Sachs, Deputy Director for Research at the McCrary Institute for Cyber and Critical Infrastructure Security
- Dr. Kelli Russell, Assistant Extension Professor, Department of Agricultural Economics and Rural Sociology
- Dr. Tom Gallagher, Regions Professor, College of Forestry, Wildlife and Environment
- Mrs. Caroline Whiting, Project Manager, Research Engineer, Department of Biosystems Engineering

Project Description

Poultry and forestry contribute \$43 billion annually to Alabama's economy, with most of the 210,000 poultry and forestry related jobs in rural areas of the state. This project aims at advancing rural Alabama by leveraging and applying modern technology to these two industries. Our initial focus will be on the forestry industry by partnering with stakeholders to learn about key issues/challenges and develop technology solutions to improve the industry's competitiveness and sustainability.

Project Objectives Related to the Forestry Industry

1. Develop technology solutions and market intelligence that will help landowners, loggers, and processors of timber improve their competitiveness and sustainability;
2. Promote technologies that will advance the timber industry;
3. Predict and protect against cyber-physical vulnerabilities in the timber industry; and
4. Facilitate the development of new case studies that provide a vision for new opportunities in the forestry industry in Alabama and the rural South.

Project Activities

Our plan is to schedule informal meetings with key individuals within the forestry industry, tour different sectors of the industry, and conduct semi-structured interviews with those working within different facets of the industry (timber landowners, loggers, timber dealers, pulpmill and sawmill managers, etc.) to learn about central issues relating to technology and potential areas of focus for our research. Data collected from these meetings, tours, and interviews are confidential and bound by the regulations of privacy set by the Auburn University Office of Research Compliance's Institutional Review Board (IRB) guidelines.

Data collected during this initial research phase will be de-identified and coded for themes by the research team to develop potential areas of focus related to technology and cyber security that will further the competitiveness and sustainability of Alabama's forestry industry. Research

teams will be identified to create or implement technologies that will benefit the various facets of the forestry industry. Our team also hopes to create opportunities to work directly with interested parties in the forestry industry to solve specific challenges from a technology development or adoption perspective.