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UF/IFAS AI AND DATA SCIENCE SEMINAR SERIES

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ZOOM:
https://go.ufl.edu/5g8w7ep

Precision Livestock Farming for Better Poultry Production and Welfare

DR. YANG ZHAO

The global poultry industry is rapidly expanding to meet increasing demand for affordable animal protein, but it faces significant challenges including labor shortages, resource limitations, and resilience to disease outbreaks. At the same time, consumer expectations for higher animal welfare and sustainability standards are placing additional pressures on poultry producers. Addressing these challenges requires transformative solutions that enhance production efficiency, sustainability, and welfare. This presentation will introduce Precision Livestock Farming (PLF), with particular emphasis on its applications in the poultry industry. PLF integrates advanced sensing technologies, automation, and AI-driven analytics to enable real-time monitoring of birds, which is the core of the production. Such systems support timely management decisions that may improve animal welfare, production efficiency, and resource utilization. By integrating PLF into modern production systems, the poultry industry can move toward a more sustainable, resilient model capable of meeting future global food demands.

BIO

Dr. Yang Zhao is an Associate Professor of Animal Science and the UT AgResearch Guthrie Endowed Professor of Precision Livestock Farming (PLF) at The University of Tennessee. His research focuses on PLF in poultry production, addressing critical challenges related to poultry environment, behavior and welfare.

Dr. Zhao has held leadership roles within the American Society of Agricultural and Biological Engineers (ASABE), serving as chair, vice chair, secretary, and committee member for multiple professional and award committees. He also serves as an associate editor for Transactions of the ASABE.

Beyond research, Dr. Zhao is deeply committed to mentoring the next generation of scientists. He has mentored 10 graduate students and 20 undergraduate students on poultry research projects. He also serves as the faculty advisor for the UT Poultry Science Club.