2024 FORUM ON
AI APPLICATIONS TO USDA SCIENCE

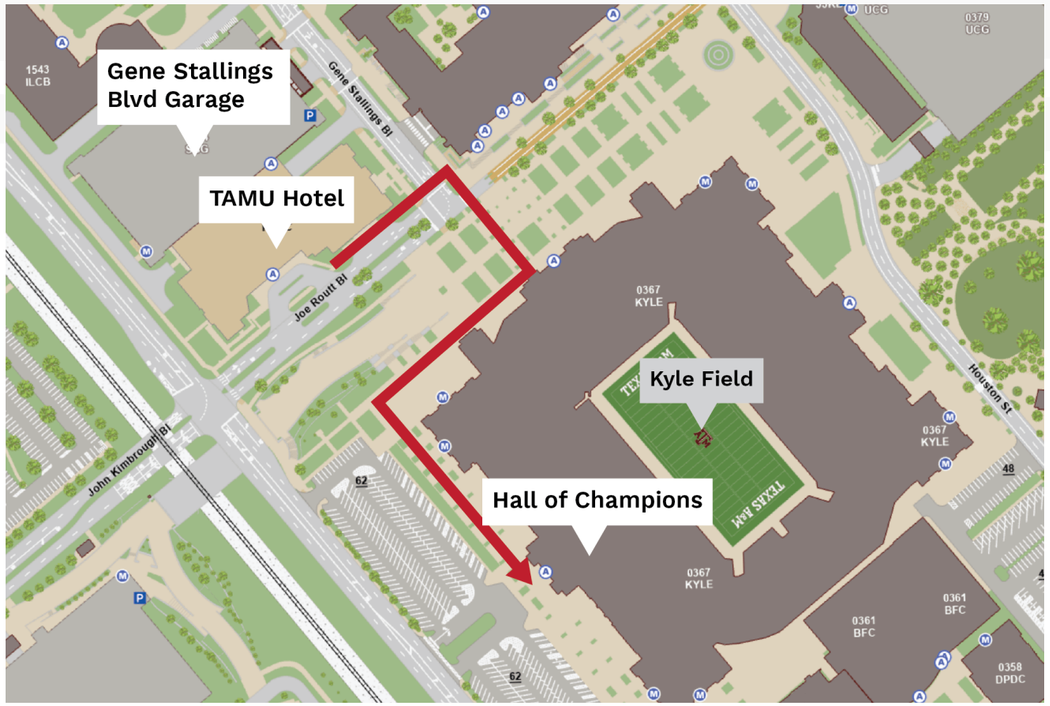
NOVEMBER 18 - 21

USDA

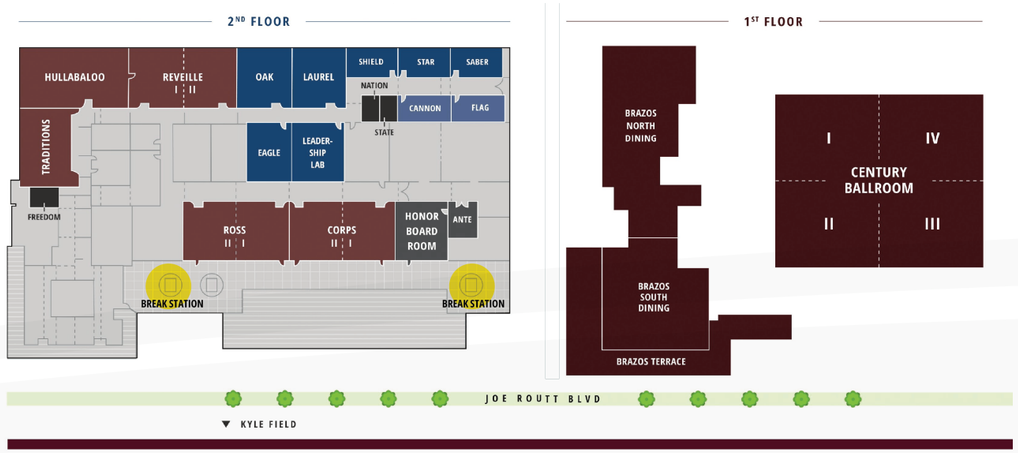
TEXAS A&M AGRILIFE

TEXAS A&M UNIVERSITY
Biological & Agricultural Engineering

MAP & LOCATIONS



TEXAS A&M HOTEL AND CONFERENCE CENTER



REGISTRATION INFORMATION

Monday, Nov 18, 2024

3:30 – 6:30 PM	*TAMU Hotel Lobby* **Early Registration Badge Pick-Up**

Tuesday, Nov 19, 2024

7:15 – 11:30 AM	*Kyle Field Hall of Champions Lobby* **Registration/Information Desk**
12:45 – 4:45 PM	*TAMU Hotel, 2nd Floor near WEST Elevator Bank* **Registration/Information Desk**

Wednesday, Nov 20, 2024

7:00 – 9:30 AM	*Kyle Field Hall of Champions Lobby* **Registration/Information Desk**
10:00 AM – 4:00 PM	*TAMU Hotel, 2nd Floor near WEST Elevator Bank* **Registration/Information Desk**

Thurssday, Nov 21, 2024

8:00 AM – 3:30 PM	*TAMU Hotel, 2nd Floor near WEST Elevator Bank* **Registration/Information Desk**

SCAN HERE FOR THE

FULL AGENDA

AGENDA OVERVIEW

Tuesday, Nov 19, 2024

7:30 AM	*Hall of Champions at Kyle Field*	**Morning Refreshments**
8:30 AM	*Hall of Champions at Kyle Field*	**Welcome and Introductions**
		TAMU AgriLife Welcome
		ARS Welcome
		NIFA Welcome
		ERS Welcome
		APHIS Welcome
		NASS Welcome
		OCS Welcome
9:45 AM	*Hall of Champions at Kyle Field*	**Break**
10:00 AM	*Hall of Champions at Kyle Field*	**Panel Discussion: AI that Drives Innovation**
12:00 PM	*Hall of Champions at Kyle Field*	**Networking Lunch**
1:00 PM	**Sessions**	
	Corps	**Systems-Level Applications**
	Ross	**Data Integration and AI in Knowledge Management - a soil carbon use case**
	Hullabaloo	**Lightning Talk Session I**
	Reveille	**Genomics I**
	Traditions	**Disease Transmission Applications**
	Oak	**Remote Sensing Applications**
	Laurel	**Ad hoc Meeting/Work Space**
2:30 PM	*Conference Center*	**Break**
3:00 PM	**Sessions**	
	Corps	**Responsible Use of AI in USDA Research: Opportunities and Risks**
	Ross	**Soil Science Applications**
	Hullabaloo	**Modeling I**
	Reveille	**Lightning Talk Session II**
	Traditions	**Computer Vision for Detection of Invasives, Foreign Objects, and Pathogens**
	Oak	**Enterprising AI and Phenotyping through Digital Ag Systems Hub (DASH)**
	Laurel	**Ad hoc Meeting/Work Space**
	Eagle	**Protein Structure Prediction Applications**
4:30 PM		

Wednesday, Nov 20, 2024

7:00 AM	*Hall of Champions at Kyle Field*	**Poster Display**
7:00 AM	**Morning Refreshments**	
8:00 AM	**Practical Applications of AI across the USDA research portfolio**	
9:15 AM	**Break**	
9:30 AM	**Policy and Practice: Setting and Communicating Boundaries for Appropriate Use of AI**	
10:15 AM	**Transition to Conference Center**	
10:30 PM	**Sessions**	
	Corps	**Large Language Models**
	Ross	**Applied Tools**

Hullabaloo
Sustainability

Reveille
Food Science Applications

Traditions
Modeling II

Oak
Genomics II

Laurel
Ad hoc Meeting/Work Space

Eagle
Ad hoc Meeting/Work Space

12:00 PM — *Hall of Champions at Kyle Field*
Networking Lunch

1:00 PM — **Sessions**

Corps
Collaboration and Education

Corps
Future Trends: Multimodal Learning

Ross
Computer Vision II

Ross
Moderated Panel: AI Opportunities at Federal Agencies

Hullabaloo
Training: Introduction to Machine Learning for Science

Reveille
Training: AI Project and Product Management

Traditions
Training: Data Preparation and Quality Assessment in Genome Assembly and Annotation

Oak
Robotics and Sensors

Laurel
Ad hoc Meeting/Work Space

Eagle
Ad hoc Meeting/Work Space

4:15 PM — *Hall of Champions at Kyle Field*
Scientific Closing: AI Opportunities in Federal Agencies

Faciliator Summary
Review of Training
Closing Remarks from the Forum Co-Organizers

5:30 PM

Thursday, Nov 21, 2024

8:00 AM — *Conference Center*
Morning Refreshments

9:00 AM — **Sessions**

Corps
Training: Predicting protein sequences and their functional roles using AI-driven bioinformatics tools

Ross
Training: From reads to variants: a pipeline for variant calling using DeepVariant

Hullabaloo
Training: Computer Vision I; introduction and image classification

Reveille
Training: Data management planning for AI

Laurel
Ad hoc Meeting/Work Space

Eagle
Ad hoc Meeting/Work Space

12:00 PM — *Conference Center*
Networking Lunch

1:00 PM — **Sessions**

Corps
Training: Predicting functional roles of proteins using AI-driven bioinformatics tools

Ross
Training: Protein structure, prediction, search, and analysis with AI

Hullabaloo
Training: Computer Vision II; object detection and semantic segmentation

Reveille
Training: Spatial modeling with machine learning

Laurel
Ad hoc Meeting/Work Space

Eagle
REE Awards Production

4:30 PM

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