Mississippi State University
Three Minute Thesis Competition
Preliminary Rounds
November 15th, 2023

Morning Session
10:00 a.m. to 12:00 p.m.

Join us in-person or virtually via this WebEx Link:
https://msstate.webex.com/msstate/j.php?MTID=ma7c2802135aa49e3300fe3c78104dfef

Welcome
Dr. Nathan Drake
Director of Graduate Programs, The Graduate School

SESSION 1
10:00 a.m. to 10:50 a.m.

Ahmed Manavi Alam, PhD
Electrical and Computer Engineering, College of Engineering
AI-Driven Strategies For Detecting And Mitigating Radio Frequency Interference In Earth Observation Satellites

Alyssa Miller, PhD
Plant and Soil Sciences, College of Agriculture and Life Sciences
Exploring the combined effects of coumarin allelochemical with glyphosate on Palmer amaranth suppression

Avery Wissmueller, Master's
Wildlife, Fisheries and Aquaculture, College of Forest Resources
Assessing the Impacts of Wetland Reserve Easements on Aquatic Nutrient Dynamics

Durant Fullington, PhD
Industrial and Systems Engineering, College of Engineering
Secure and Effective Data Sharing for Metal-based Additive Manufacturing

Felipe Fernandez Martinez, PhD
Civil and Environmental Engineering, College of Engineering
An adjusted P-Index for the Mississippi Delta region

Gabriel Nyen, Master's
Forestry, College of Forest Resources
Longleaf Pine Forest Restoration Throughout the Southeast

Yukai Ai, PhD
Physics and Astronomy, College of Engineering
Single aerosol particle study by using optical trapping

Duncan Fraser, Master's
Wildlife, Fisheries, and Aquaculture, College of Forest Resources
Shorebird Response to Wetland Restoration in the Lower Mississippi Alluvial Valley

BREAK
10:50 a.m. – 11:00 a.m.

SESSION 2
11:00 a.m. – 12:00 p.m.

Mercy Ogunruku, Master's
Sustainable Bioproducts, College of Forest Resources
Evaluating selected properties of underutilized hardwood species for fabrication of cross-laminated timber industrial mats

Mohammad Shakiul Islam, PhD
Geosciences, College of Arts and Sciences
Estimation of Chlorophyll-a in Uncrewed Aircraft Systems Imagery using Autonomous Surface Vessel data by employing Machine Learning Algorithms and Innovative Feature Selection Approaches

Oluwabori Adekanye, PhD
Comparative Biomedical sciences, College of
Veterinary Medicine
*Carboxylesterase 1 (CES1) regulates triacylglycerol
and inflammatory cytokines in human
macrophages.*

Riley Porter, Master's
Wildlife, Fisheries, and Aquaculture, College of
Forest Resources
*Nest box selection by Common Goldeneye
(Bucephala clangula) in the Chena River system,
Interior Alaska*

Rezwana Rahman Setu, PhD
Biochemistry, Molecular Biology, Entomology and
Plant Pathology, College of Agriculture and Life
Sciences
*Analysis of Systemic Acquired Resistance by
Monitoring Redox-Mediated Transcriptional
Dynamics in Arabidopsis*

Ridwan T. Ayinla, PhD
Sustainable Bioproduct, College of Veterinary
Medicine
Road to a sustainable and green supercapacitor

Samadhi Nawalage, PhD
Chemistry, College of Arts and Sciences
*Overcoming challenges in experimental
quantification of the optical properties of
photoactive metal-organic frame works: A case
study with NU-1000*

Haley Hughes, Master's
Wildlife, Fisheries, and Aquaculture, College of
Forest Resources
*Native Bees in Historically Managed Waterfowl
Wetlands*

Esteemed Judges

Dr. Kayla Pineda
Executive Director
Quality Enhancement Plan

Dr. Ronald Gatewood
Desktop Services Manager
Information Technology User Services

Joseph Iupe
Director of Finance and Budget
Mississippi State University Foundation

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