

HONORS ENGINEERING SYMPOSIUM

UNIVERSITY OF ARKANSAS

SYMPOSIUM SCHEDULE

Check-In - Arkansas Union Verizon Ballroom Foyer

7:50 AM-8:05 AM

Welcome and Judge Introductions - Verizon Ballroom

8:15 AM-8:20 AM

Innovation Poster Session - ARKU 507-511

08:30 AM – 9:30 AM

- *ChordCircle*: Kyle Bobo, Garrett Claypool, Chase Garbarini, Carter Horton & Caleb Thomas
- *The Craft Connection—Community through Crafts*: Ian Dandurand, Madeline Fithen, Elizabeth Lim, Shirly Lin, Kale Rogers & Emilie Young
- *MindMuscle Supplements*: Will Lowery, Cohen Martinez, Luke Nowlin & Grant Williams
- *PureFoam*: Ivan Freeman, Kai Lin & Andrew Nguyen
- *Questudy*: Daniel Choi, Emily Noack & Arceli Rodriguez
- *Volt Solutions*: Spener Britton, Angello Cornetto, Beckett Hynes, Cole Rogers & Geoffery Williams

Research A Presentation Session 1 - ARKU 504

08:30 AM Matt Anderson, Zachary Needham, & Manuel Schick-Alba: *A Qualitative Analysis of Dielectric Barrier Discharge Under Various Wind Conditions*

08:50 AM Tyler Green, Samuel Carrero, & Aleana Nixon: *Mapping a System for Standardized Parametric Modeling*

09:10 AM Luca Palazzo, Brayden Werner, & Juan Monterrozas: *Designing a Crowbar Fault Injection Device (CFI) for Hardware Security Development*

Research A Presentation Session 2 - ARKU 512

08:30 AM Naomi Morris, Natalie Williams, & Savannah Eanes: *Testing Bacterial Levels in Recreational Waters of Northwest Arkansas*

08:50 AM Hillary Dick & Juliet Anreder: *Assessing Diffuse Reflectance Spectroscopy as a Mode to Correct Biomedical Sensor Accuracy in Diverse Skin Tones*

09:10 AM Harper Combs, Jaden Park, & Ben Hood: *Study of polymer degradation using enzymes*

Research A Presentation Session 3 - ARKU 514

08:30 AM Benjamin Goolsby & Tyler Wilcox: *Comparison of Silicon Carbide and Silicon at High Temperatures using MOSFET Transistors*

08:50 AM Hayden Daniel, Andrew Escue, & Gabe Melton: *Comparing the Energy Efficiency of Two Motors Versus Four Motors in Various Scenarios*

09:10 AM Bodey Steinfeldt & Chance Reed: *Using a Large Language Model to Describe Correlations in a Plant's Genome*

Research A Poster Session- ARKU 507-511

09:45 AM – 10:45 AM

- Matt Anderson, Zachary Needham, & Manuel Schick-Alba: *A Qualitative Analysis of Dielectric Barrier Discharge Under Various Wind Conditions*
- Hillary Dick & Juliet Anreder: *Assessing Diffuse Reflectance Spectroscopy as a Mode to Correct Biomedical Sensor Accuracy in Diverse Skin Tones*
- Hayden Daniel, Andrew Escue, & Gabe Melton: *Comparing the Energy Efficiency of Two Motors Versus Four Motors in Various Scenarios*
- Benjamin Goolsby & Tyler Wilcox: *Comparison of Silicon Carbide and Silicon at High Temperatures using MOSFET Transistors*
- Luca Palazzo, Brayden Werner, & Juan Monterrozas: *Designing a Crowbar Fault Injection Device (CFI) for Hardware Security Development*
- Tyler Green, Samuel Carrero, & Aleana Nixon: *Mapping a System for Standardized Parametric Modeling*
- Harper Combs, Jaden Park, & Ben Hood: *Study of polymer degradation using enzymes*
- Naomi Morris, Natalie Williams, & Savannah Eanes: *Testing Bacterial Levels in Recreational Waters of Northwest Arkansas*
- Bodey Steinfeldt & Chance Reed: *Using a Large Language Model to Describe Correlations in a Plant's Genome*

Research B Presentation Session 1 - ARKU 512

09:45 AM Joshua Nguyen: *Optimizing Lentivirus Concentrations in Adhesion and Suspension Cell Cultures*

10:05 AM Isaac Legate, Lucas Chance, & Tanner Holden: *Developing 3D printed Collagen-Genipin Coated Polycaprolactone Scaffolds for Bone Injury Treatment*

10:25 AM Janet Reyes & Lauryn Tapley: *Measuring Stress on Chordae Tendineae Force Transducers*

Research B Presentation Session 2 - ARKU 514

09:45 AM Bryan Le & Hannah Marsico: *Improving Personalized Information Retrieval through Contextual Word Embeddings created by ColBERT*

10:05 AM Ari Mondal, Chris Ablondi, & Evan Tan: *Design and Development of an Expandable Drone Frame for Airspace Utilization*

10:25 AM Kaiden Fix: *Improving Space Thermal Systems with Ti-Encapsulated Graphite*

Research B Poster Session- ARKU 507-511

11:00 AM – 12:00 PM

- Ari Mondal, Chris Ablondi, & Evan Tan: *Design and Development of an Expandable Drone Frame for Airspace Utilization*
- Isaac Legate, Lucas Chance, & Tanner Holden: *Developing 3D printed Collagen-Genipin Coated Polycaprolactone Scaffolds for Bone Injury Treatment*
- Bryan Le & Hannah Marsico: *Improving Personalized Information Retrieval through Contextual Word Embeddings created by ColBERT*
- Kaiden Fix: *Improving Space Thermal Systems with Ti-Encapsulated Graphite*
- Janet Reyes & Lauryn Tapley: *Measuring Stress on Chordae Tendineae Force Transducers*
- Joshua Nguyen: *Optimizing Lentivirus Concentrations in Adhesion and Suspension Cell Cultures*

Innovation Presentation Session 1 – ARKU 512

11:00 AM Daniel Choi, Emily Novack & Arceli Rodriguez: *Questudy*

11:20 AM Ivan Freeman, Kai Lin & Andrew Nguyen: *PureFoam*

11:40 AM Spener Britton, Angello Cornetto, Beckett Hynes, Cole Rogers & Geoffery Williams: *Volt Solutions*

Innovation Presentation Session 2 – ARKU 514

11:00 AM Kyle Bobo, Garrett Claypool, Chase Garbarini, Carter Horton & Caleb Thomas: *ChordCircle*

11:20 AM Ian Dandurand, Madeline Fithen, Elizabeth Lim, Shirly Lin, Kale Rogers & Emilie Young: *The Craft Connection—Community through Crafts*

11:40 AM Will Lowery, Cohen Martinez, Luke Nowlin & Grant Williams: *MindMuscle Supplements*

Keynote Speech and Lunch- Verizon Ballroom

12:15 PM-1:15 PM

Award Ceremony – Verizon Ballroom

1:15 PM – 2:00 PM