# The ME Connection

## **UE Mechanical Engineering Newsletter**

May 2022

"Education is the most powerful weapon which you can use to change the world"

- Nelson Mandela

SAE Baja Team

#### Class of 2022

Congratulations to our newest alumni – the Class of 2022! We will miss seeing you around campus, but we look forward to hearing more about where life takes you after UE.



As our graduates begin their careers, our returning students are looking forward to summer break, internships, coops, and summer research opportunities.







Members of the Class of 2022 accepted the Obligation of the Engineering and were inducted into the Order of the Engineer earlier this month.

#### **Integrated Design Teams**

The senior-led project teams that incorporated underclassmen included the SAE Baja Team, the NASA Rover Team, and the Thermosiphon team. As most teams celebrate the culmination of their work over the academic year, the SAE Baja team will conclude their work at competition later this month.



NASA Rover Team

Thermosiphon Team

#### **Dr. Lofton Awarded Best Paper**

Dr. Jessie Lofton (Class of 2009) won Best Paper at the 2022 IL-IN American Society for Engineering Education (ASEE) Conference held at Anderson University in April. Her peer-reviewed paper titled, "Flipping the Heat Transfer Classroom," shares a pedagogical approach to increase active learning and student engagement in a heat transfer course.



We'd love to share what our alumni are doing!

Please submit a photo and short blurb to:

mechanicalengineering@evansville.edu



### Student Spotlight: ME 297 Class Project

Five sophomore students collaborated this semester to design, build, and test a device operated by a Geneva mechanism. The team proposed a "marble mover" that lifted a marble on a set of linkages before releasing the marble onto a track, where the marble traversed a path and returned to its original location to repeat the process. The team designed every element of the device, including the gears, linkages, the marble track, and all components to the Geneva mechanism. The Geneva system translated rotational motion from a hand crank into intermittent rotary motions that drove the linkages to lift the marble.

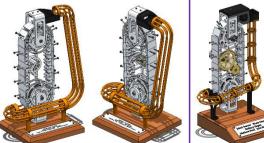
One of the design constraints was a limited workspace envelope for the device. All metal pieces were 3D modeled and fabricated using UE's CNC machines. The marble track assembly, shown in orange and black in the images, was 3D printed for assembly. The students also made the wood base and engraved nameplate.



John Matthew Stewart Ford

w Zach Eagan

Jakob Wade Barlow Dixon



Conceptual Design



Final Design

#### **Mechanical Engineering Advisory Council**

UE's Mechanical Engineering Advisory Council (MEAC) and faculty met in April to review the ME program and discuss industry trends. MEAC members, many of whom are ME alumni, provide valuable insights across various career paths.

#### **Congratulations Corner**

Class of 2022 Congratulations to Mike Boots on breaking a more than 46-year-old school record in the outdoor shot put! Mike holds multiple school records, including the indoor shot put.





Class of 2019 Congratulations to Kumeel Alsawaf, Assistant Regional Manager at NAQEL Express, on earning his Project Management Professional (PMP) certification!

**Class of 2023** Congratulations to Alex Sagers on receiving the James M. Hall Memorial Award, which recognizes a student of the junior class for outstanding scholastic achievement, responsibility, character, attitude, extra-curriculars, and potential for professional growth.