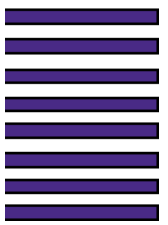




# SCHOOL OF ENGINEERING AND COMPUTER SCIENCE



## Bits & BYTES

ISSUE 3 | DECEMBER 2023 | VOLUME 1



### Happy Holidays!

December brings the finals and the end of the Fall semester, but it also brings the start of the Winter Holiday season. Our diverse campus community celebrates this season in many ways! The various departments around campus are putting out holiday decorations and hosting events to allow students to celebrate their holiday traditions with others.

SECS spent the afternoon of December 1 decorating our area for the holidays, celebrating with cookies and hot cocoa. We thank those who came to help with the decorating. The photo(s) above show off their great work!

Finals week is December 8-14. As students complete their finals, they will start heading home to spend the rest of the holiday season with family. We wish our student a safe and healthy Holiday season, and look forward to seeing you all back on campus in January!

### MAKE THE MOST OF YOUR WINTER BREAK

As students head home for Winter Break, here are some tips to help you make the most of your time away from campus!:

- \* Consider taking a Winter Intercession class to get ahead on your General Education requirements. All Winter Intercession courses are online.
- \* Drive safely and be mindful of the weather as you travel home and back to campus.
- \* Use this time to apply for internships. If you have the opportunity to do an internship in your hometown or nearby, it will save you money on summer housing. If possible, see if you can do an interview during winter break so you don't have to make another trip. Getting an internship lined up early means less stress later in the semester.
- \* Relax, play games with your family, and have fun!
- \* Get lots of rest so you are rejuvenated and ready to get to work when you return to campus.
- \* Order your textbooks early so you don't have to stress about it at the end of break.
- \* Connect with friends you haven't seen for a while and make a plan to keep in touch.

2 THE ASSOCIATE DEAN'S CORNER

STUDENT PROJECTS

IMPORTANT DATES

3 ENGINEERING AMBASSADORS

SENIOR SPOTLIGHT

Meet a member of our Senior Class

STUDENT ORGANIZATIONS

4 CS STUDENTS SUBMIT PAPERS

TIPS FOR ACADEMIC SUCCESS





## Associate Dean's Corner

Dear Members of the School of Engineering and Computer Science (SECS) Community,

I am delighted to extend a warm welcome to each and every one of you to this edition of our newsletter. The month of December is a month of reflection, celebration, and anticipation, and our School of Engineering and Computer Science has plenty to share and celebrate. The collective efforts from our faculty, staff, and students have contributed to the steady growth and success of our school, and I am immensely proud of what we have accomplished together this year.

As I look back and reflect on the continuous and steady growth of our program's enrollment after Covid, the many changes we have made in our program curriculum to make it better for our students, and the many student success stories, I am very thankful to our outstanding, and dedicated faculty who work tirelessly to make our students successful. My special thanks go to Tonya Albright, our wonderful administrative assistant who is the main force behind the creation and distribution of this newsletter. I encourage you to actively share your achievements, projects, and noteworthy news with Tonya so that they can be shared with the broader SECS community.

In this edition, you'll discover news of some of our students and faculty who have excelled in publishing their research work, the progress made by our student project teams, and the many activities of our student chapters in the past month. From student projects to engaging extracurricular activities, a lot has been happening in our learning spaces and labs since the semester started, and the efforts will continue in the next semester.

As we bid farewell to 2023, let's embrace the spirit of teamwork, collaboration, excellence, continuous and steady improvement that defines our School of Engineering and Computer Science. May the upcoming year be filled with even greater accomplishments and shared moments of joy and happiness.

Wishing you a Merry Christmas and a prosperous New Year!

Sincerely,

Suresh Immanuel, Ph.D., P.E.

## IMPORTANT DATES

### December

- 1** Winter on Walnut (5-8 pm)
- 7** Reading Study day, no classes.
- 8-14** Finals week (see schedule [here](#))
- 18** Final Grades Due
- 21** Campus Closed for Winter Break



**25**

### January 2024

New Year's Day

- 1**  Happy New Year!
- 3** Winter Break ends
- 8** First Day of Spring classes
- 15** Martin Luther King Day. No classes

# 2023-24 Senior Design Projects

## GRANTED HOUSE OF HOPE UPDATE

The UE civil engineering design team (SNEWBZ) continues to make progress in the design of the 4800 SF House of Hope building for Granted. This design/build project is very unique in that site construction continues as the UE team coordinates the design work with the project sponsor and multiple contractors. The site plan and building floor plan were updated and sent to civil, electrical, mechanical, and architectural contractors on December 1, 2023.

The UE design team will incorporate contractor input into the design in January at the beginning of the spring semester. The building will be located on a 12+ acre site that is adjacent to Pigeon Creek. All construction will occur on a 3+ acre site that is outside the floodway (See Figure)

Overall, this continues to be a great experience for the senior class to obtain professional experience as well as exposure to working on a project as a member of a large multi-faceted engineering design and construction team.

## UE RACING TEAM

The UE SAE Baja race team has recently concluded the design phase of the vehicle and will soon be presenting it to the UE engineering faculty.



Each section of the vehicle underwent extensive finite element analysis in order to validate the design. All vehicle components were modeled and assembled using the CAD software SolidWorks.

Beginning at the start of next semester, the team will begin the fabrication phase of the car shown by the 3D model and hope to have a completed vehicle by March 25th.



Figure 1. The University of Evansville Senior Design Team is listed as a Major Supporter for the Project

## THERMOSIPHON TEAM

The Thermosiphon team is continuing with our testing phase. We don't have a lot of changes to report this month. Please watch for updates in the future.

## ENGINEERING AMBASSADORS

The Engineering Ambassadors are a critical part of helping connect the School of Engineering and Computer Science with prospective students. Through hand-written postcards and time spent over coffee, these student ambassadors foster relationships with future Aces, helping them discover how UE can become their future home.

Throughout the year, our ambassadors attend events and provide a unique prospective on their courses, campus life, and why they decided to attend the University of Evansville. Thank you Wyatt, Gracie, Tiffany, Ghaya, Daniil, Luke, and Jillian for all you do. We couldn't do it without you!



## Student Organizations



ASCE Student chapter has been very busy this past month. We are in the early stages of our Concrete Canoe project and will be starting work on the topographical mapping component of the Surveying Competition. We are getting very excited about Symposium this spring!

Earlier this month we held elections. Our new officers are:

Pres : Luke Gramza  
 VP : Aiden Krutchen  
 Treasurer: Henry Hall  
 Secretary: Jillian Tretter  
 Social Chair: Baylee Essert  
 Freshman Class Officer: Astrid Miranda  
 Sophomore Class Officer: --(vacant)-  
 Junior Class Officer: Brendan Haire  
 Senior Class Officer: Zach Worley

On November 28, we went bowling at ARC Lanes and a great time was had by all. We look forward to holding more social activities next semester.

For more information about ASCE, contact Luke Gramza, lg199@evansville.edu.



### SCHOLARSHIP OPPORTUNITY

The Society of Women Engineers awards more than \$1,500,000 in scholarships to members. SWE Scholarships support those who identify as a female/woman and are pursuing an associate, bachelor or graduate degree in engineering, engineering technology and computer science, in an ABET accredited program. Only one online application is required, and you are automatically considered for all scholarships for which you are eligible.

Applications for rising sophomores through Ph.D. candidates in the 2024-2025 academic year are open **now through January 31, 2024**. Incoming freshman for the Fall 2024 semester can apply **Feb 2 through March 31, 2024**.



On Wednesday, November 29, we held our last meeting of the semester. Mr. Andrew Layer, a professional engineer from Berry Global, was our guest speaker. He gave us a very detailed presentation about the life of an engineer and the day-to-day operations he encounters.

There is a new member on the leadership team; Brendan Ulewicz has been appointed ASME Secretary.

Next semester we plan to hold more events and boost our activity on campus. We welcome new members to join us.

If you would like to know more about joining the UE ASME Student Section contact Nate Bingham (nb214), Chair or Christopher Martin (cm527), Vice-Chair.

## SENIOR SPOTLIGHT



### Nicholas Gushrowski

*Civil Engineering, Class of 2023*

**Hometown:** Michigan City, IN

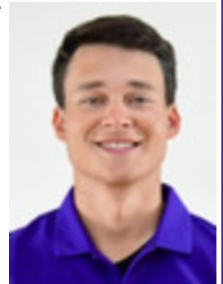
**Why I Chose UE:** *I chose UE for the opportunity to major in Engineering and play Division I golf at the same time..*

**Clubs or Organizations Involved in At UE:** *Men's Golf, ASCE*

**Internships or Co-op Experience:** *The summer of 2023 I interned as a Construction Inspector for American Structurepoint.*

**Favorite UE memory:** *I will always remember my surveying class where we did a complete survey of the old dormitory, Hughes Hall, before it was knocked down to build the future student wellness center*

**Where do you go from here?** *I just recently accepted a job offer from American Structurepoint to continue working as a Construction Inspector upon graduation.*



## COMPUTER SCIENCE STUDENTS SUBMIT PAPERS



Dr. Maxwell Omwenga, Assistant Professor of Computer Science, is excited to announce that he co-authored a paper with Ghaya Mtimet, a Sophomore Computer Science major. The paper, titled EMG Classification and Motion Prediction Using Artificial Intelligence, was submitted for peer review and publication to the 24th IEEE/ACM international Symposium on Cluster, Cloud and Internet Computing.

Alejandro Malla, UE. student majoring in Computer Science and Mathematics, has two newly published sequences in the Online Encyclopedia of Integer Sequents (OEIS) – you can see it them here:

<https://oeis.org/A367309>

<https://oeis.org/A367310>

Malla discovered these sequences while writing computer programs for one of his current courses (Real Analysis, Math 420).

The OEIS is an immense database founded by Neil J. A. Sloane in 1964. At least three past U. E. students have sequences published in the OEIS: Karen Wangel (<https://oeis.org/A022559>, in 1998), Melia Aldridge (<https://oeis.org/A020330>, in 2000), and Michelle Huff (<https://oeis.org/A277754>, in 2016). For details, visit the Welcome page: <https://oeis.org/wiki/Welcome>.

### TIPS FOR ACADEMIC SUCCESS

**Step Outside Your Comfort Zone**—Don't be afraid to try new things. Join (or form) a club, explore Greek Life options, or study abroad. Your college years are the time to reach further and engage in activities that will enrich your life, help you make connections, and become a better citizen.

**Student Organizations**—More than 130 student organizations on campus provides countless opportunities for you to learn and grow outside the classroom. On [UEngage](#), student organizations are classified into several categories, whether you are looking to meet other students in your academic field or find friends with similar cultural or religious interests.

**Greek Life**—More than 25 percent of UE students are affiliated with a Greek organization. Each fraternity and sorority on the UE campus has its own distinct character, philanthropies, colors, and inter/national histories.

**Study Abroad**— **Harlaxton** is the University of Evansville's study abroad center based in a Victorian manor house in Grantham, England, about an hour north of London by train. Students have the option to spend a semester or summer at Harlaxton!

The chance to study abroad at Harlaxton is configured into most majors and academic areas at UE to make it easy for our students to have this unique experience abroad. Just talk with your academic advisor about the best time for you to go to Harlaxton!

If Harlaxton isn't right for you, there are over 50 countries where you can study abroad for a semester through the International Student Exchange Program ([ISEP](#)), with over 200 universities in the network. Studying abroad through our exchange programs gives you the chance to have a truly immersive cultural experience, as you will spend your semester taking all your courses in the host university and living like a local! Contact the [Study Abroad Office](#) for more details about these options.

### SCHOLARSHIP OPPORTUNITY

#### INDOT seeks applicants for Engineering Scholarship Program

**INDIANAPOLIS** – The Indiana Department of Transportation (INDOT) is seeking applicants for its Engineering Scholarship Program, available for undergraduate and graduate students. Recipients receive financial assistance, as well as opportunities for paid employment during summer breaks and upon graduation.

Students must be accepted or enrolled full-time in one of Indiana's accredited Civil Engineering schools. The program must also be certified by Indiana's Accreditation Board for Engineering and Technology (ABET). Eligible universities with ABET-certified Civil Engineering programs include Purdue University, Purdue University Fort Wayne, Purdue University Northwest, Rose-Hulman Institute of Technology, Trine University, University of Evansville, University of Notre Dame, University of Southern Indiana, Indiana State University and Valparaiso University.

INDOT's scholarship program offers \$3,125 per semester or \$2,083 per trimester for up to five years of post-secondary Civil Engineering education. Scholarship funds may be applied to educational expenses, fees, and books. In return, recipients have the opportunity to work at INDOT in full-time, paid positions during summer breaks and upon graduation.

Learn more about the INDOT Engineering Scholarship Program and the application process at [indotscholarship.in.gov](http://indotscholarship.in.gov). Applications for the 2024-2025 school year must be emailed or postmarked by Sunday, December 31, 2023.

Those with questions may contact Adam Beasley at [ABeasley2@indot.in.gov](mailto:ABeasley2@indot.in.gov) or visit the website listed above.