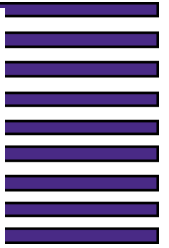




SCHOOL OF ENGINEERING AND COMPUTER SCIENCE



Bits & BYTES

ISSUE 1 | AUGUST 2024 | VOLUME 2

Welcome New SECS Faculty

Please join the School of Engineering and Computer Science in welcoming two new faces to our Faculty this Fall.

Dr. Ying Ying Seah, PhD
Assistant Professor of Computer Science



Dr. Seah holds a Ph.D. in Technology from Purdue University. Before joining UE, she served as an Assistant Professor of Creative Technologies at Oakland City University. Informed by research, Dr. Seah is committed to integrating innovative pedagogies into her classroom. Her research interests include STEM Education, Design Thinking, Argumentation, Simulation-based Learning, and Learning Analytics. Born and raised in Sungai Besar, Malaysia, Dr. Seah is fluent in four languages. She is deeply committed to her Christian faith and is passionate about connecting with students outside the classroom, fostering a supportive and engaging learning environment. In her free time, she enjoys cooking, DIY projects, gardening, and travelling.

Dr. John T Macdonald, PhD, PE
Visiting Assistant Professor of Electrical Engineering



Dr. MacDonald is a Licensed Professional Engineer and a Senior Member of the IEEE. Dr. MacDonald holds a PhD in Electrical and Computer Engineering from Illinois Institute of Technology. Before joining UE, he served as an Adjunct Professor of Electrical Engineering at College of Lake County.

In addition to his education, Dr. MacDonald has extensive experience in industry as an electronic hardware designer and software engineer along with many years of teaching undergraduate engineering courses.

Dr. MacDonald believes students have the best chance of success through experiential and project-focused learning involving critical thinking and constructive feedback. In his spare time, he enjoys singing in choir and playing the ancient sport of curling.

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Alumni News



Ryan Witters, CE Class of 2011, Has Article Published

The July/August 2024 Issue of the AACE Cost Analysis Journal features a paper co-authored by 2011 UE Civil Engineering Graduate, Ryan Witters. Witters is a Senior Director-Disputes for Aegis Risk, LLC, a division of the Aegis Companies (Aegis) based in Silver Spring, MD.

Witters co-authored the paper *The Hybrid Earned Value Analysis—A Proxy for the Measured Mile* with Russell Wodiska, President of The Aegis Companies' Mid-Atlantic office in Silver Spring, MD. In addition to publishing the paper, the issue includes the authors' responses to questions about the technical writing process.



Associate Dean's Corner

Dear Members of the School of Engineering and Computer Science (SECS) Community, I am thrilled to welcome each of you to the first edition of our newsletter in this new academic year. Whether you are returning after a restful summer or joining us for the first time, I extend my warmest greetings to you all.

Our freshmen and transfer enrollment numbers continue to grow every year, and we have an exciting lineup of projects, and opportunities in the pipeline. Over the summer, Dr. Jessie Lofton and Dr. Brian Swenty presented their papers at the 2024 ASEE Annual Conference. Dr. Maxwell Omwenga and his students presented two papers at the 2024 IEEE International Conference on Electro Information Technology. Dr. Hector Will attended the National Effective Teaching Institute workshop to learn more about developing active learning strategies to capture student interest among other things. Our students were busy with their summer internships and you will read some of their work summary in this newsletter and in next month's edition as well.

I am delighted to welcome two great additions to our faculty group, Dr. Ying Ying Seah and Dr. John MacDonald. We also have Mr. Josh Hood teaching as an adjunct faculty in our Construction Management program this semester. We have recently become one of the Midwest Regional Hub partners for an NSF project that focuses on increasing the number of underrepresented students in engineering and you can read more about this on page 4.

I look forward to all that we will achieve together as we embark on another exciting academic year.

Sincerely,

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

Associate Dean and Professor

School of Engineering and Computer Science

Welcome Freshmen!

SECS welcomes the freshmen of the Class of 2028 and our transfer students. Following Freshman Convocation on Tuesday, August 20, the students met the SECS faculty and staff, took a tour of the facilities and had a chance to socialize. The Fall 2024 cohort includes 19 Civil Engineering majors, 6 Construction Management majors, 7 Computer Engineering majors, 15 Computer Science majors, 5 Electrical Engineering majors, 17 Mechanical Engineering majors, and 14 transfer students.

We look forward to seeing what the future holds for these bright, young students.



Student Organizations



Our Student Organizations will be holding Kick-off meetings within the first few weeks of the semester. Watch for e-mails and flyers announcing meeting dates.

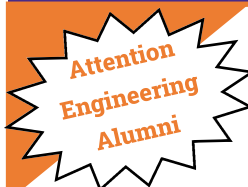
IMPORTANT DATES

August

- 21** Classes Begin
- 27** Student Job Fair
11 am (Ridgway)
- 27** Last Day to Register or Add Classes
Last Day to drop without a "W"

September

- 2** Labor Day (No Classes)
University Closed
- 5** Meet the Firms, 3 pm (Eykamp)
- 11** United Way Day of Caring
9 am Eykamp Scout Center
- 20** Purple Visit Day
- 24** Engineering, Business, and Technology Career Fair, 12:30pm (Eykamp)



The UE School of Engineering and Computer Science is seeking Alumni to assist in various areas in support of the school:

- Guest Lectures
- Recruitment
- Adjunct Professors
- Serve on Advisory Councils

If you are interested in supporting SECS in any of the areas listed, please contact Dr. Suresh Immanuel via e-mail (ss476@evansville.edu).

2024 Summer Highlights

SECS

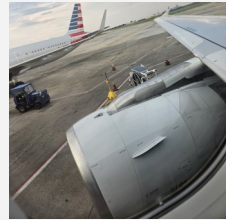
students were asked "What did you do this summer?" Several of our students shared their summer experiences with us. It is exciting to see the great work our students are doing in their communities! Here are a few of the stories shared with us.

Samuel Russell

Electrical Engineering Class of 2026



This summer I completed my second summer internship with NSWC Crane, in the Spectrum Division working alongside Electronic Warfare professionals. I worked on many projects that will go to support the warfighter, as well as taking a trip to Bayview, Idaho to another Naval Base for a project (see pictures). It was an eventful summer and I'm ready to come back to UE and continue both my studies and my involvement with my fraternity, Lambda Chi Alpha.



Astrid Miranda

Civil Engineering Class of 2028



I spent my summer in St. Louis working on the construction of a wastewater treatment plant as a co-op for Kokosing Industrial. The project I was assigned on is a design-build that's worth roughly \$900 million between two sites. I worked on researching requirements for electric incentives that may be available through MSD, updating drawings with instrument location while going through vendor submittals, entered stone, freight, and aggregate tickets and did progress photo documentation for the sites.

The highlight of my experience would be our capstone project where all of the co-ops got to build concrete pads for the Ackerman Preserve in Fredericktown, OH.



Henry Hall

Civil Engineering Class of 2025

This summer I interned with SpaceX as a part of the Launch Infrastructure team in Brownsville, TX, where I managed a number of industrial construction scopes in addition to leading my own design project. The highlight of my internship was witnessing the fourth test flight of SpaceX's Starship rocket, the most powerful launch vehicle ever made. It was incredible to see the launch and be a part of such an inspiring company!



Patrick Albright

Mechanical Engineering Class of 2026

This summer I spent working as a Design Engineer Intern for AgroRenew, a start-up bioplastic manufacturing company in Vincennes. I used my SolidWorks knowledge and design skills from my ME courses to design the proprietary machinery they will use for their production lines. AgroRenew is creating plastic from the waste watermelons, pumpkins, and other vegetables from local farmers in Knox County, IN.

The highlight of the summer was being a part of the groundbreaking ceremony for AgroRenew's \$83 million production facility on June 19. It was amazing being a part of that historic day. I had the opportunity to network with professionals in the plastics industry.

I am so grateful for this opportunity and look forward to continuing to work for AgroRenew into the Fall Semester.

 AgroRenew

A Company of Transformation

UE joins Engineering Plus, An NSF INCLUDES Alliance

As a Member of the Midwest Regional Hub

The Engineering Plus Alliance is a network of higher education institutions that will build an inclusive infrastructure to achieve transformative, systemic and sustainable change to increase the participation of individuals from groups that have historically been underrepresented in the US engineering workforce. The Engineering Plus Alliance is one of 17 NSF INCLUDES alliances funded by the National Science Foundation and the only one focused on Engineering.

The Midwest Regional Hub will focus on building partnerships among higher education institutions in the Midwest to increase the annual number of Black, Indigenous, and other People of Color and women receiving undergraduate and graduate degrees in engineering. The goal is to achieve 100K undergraduate and 30K graduate degrees awarded annually across the US by 2026. To achieve this goal, the Engineering Plus INCLUDES Alliance brings together leaders and collaborators from universities, stakeholder non-profits, businesses, and other Alliances for community building, partnerships, and networking. These networked communities will build an inclusive infrastructure to drive the transformative, systemic and sustainable change needed implement the high-impact practices that will be successful in increasing diversity in Engineering Education..

UE joins Chicago State University, Purdue University, Illinois State University, Ohio University, Kent State, University of Cincinnati, Hanover College, Rose Hulman Institute of Technology, and many more institutions of higher education as partners to increase the participation of underrepresented individuals in Engineering.



TIPS FOR ACADEMIC SUCCESS

Computer Specifications for Engineering & Computer Science Students

As the start of the Academic Year is on the horizon, several students, both returning and new, look into purchasing a computer or laptop for school use. While the University of Evansville does not require it, many students choose to have a personal computer. Students will have 24/7 access to the labs, where the computers have all the software students need.

Here are some guidelines for student to use when selecting a personal computer.

Laptop:

Recommended Minimum Specifications:

*Intel Core i5 1.7 GHz CPU/AMD Equivalent
12 GB (DDR4) RAM
250 GB SSD/HDD*

Suggested Specifications (for better performance)

*Intel Core i7 4.4GHz CPU/AMD Equivalent (or better)
16 GB (DDR5) RAM
250 GB SSD/HDD*

Desktop:

Recommended Minimum Specifications:

*Intel Core i5 1.7 GHz CPU/AMD Equivalent
12 GB (DDR4) RAM
250 GB SSD/HDD*

Suggested Specifications (for better performance)

*Intel Core i7 4.4GHz CPU/AMD Equivalent (or better)
16 GB (DDR5) RAM
500 GB SSD/HDD (or larger)*

Operating System:

*Microsoft Windows 10 or later
OR MacOS Sonoma, Version 14 or later (if Computer Science major)*

Software:

The University of Evansville has special agreements with several companies that allow students to use many software titles (e.g. Microsoft Office, Autodesk products) for free or at a significant discount. Contact the Office of Technology Services if you have any questions regarding this licensing program. Students also receive cloud-based storage space (OneDrive). It is recommended that students save all course work to the cloud so that it is available for easy access.

SCHOLARSHIP OPPORTUNITY

Nuts, Bolts & Thingamajigs Scholarship

The Fabricators & Manufacturers Association sponsors the Nuts, Bolts, & Thingamajigs Scholarship, which is awarded bi-annually (one each Spring and Fall) for \$2500.

Application Requirements

- Submit an [online application](#).
- Submit an official high school or college transcript from the school where you most recently completed a semester. You will be allowed to upload your transcript with your application, or you may choose to use an electronic transcript service. Only transcripts received with the application or postmarked by the application deadline will be accepted. Submit transcripts via mail to Nuts, Bolts & Thingamajigs, 2135 Point Boulevard, Elgin, IL 60123. Please allow ample time for delivery.
- Minimum GPA (4.0 scale) to apply 3.0 for students attending universities.
- Application review and scholarship award decisions will take place in October/November for spring terms and in April/May for summer/fall terms.

Scholarship Recipient Requirements

If you are selected to receive a scholarship award, you will be notified by email, and you must agree to:

- Sign and submit a scholarship award acceptance form.
- Submit a headshot photo and a signed photo release form.
- Submit contact information for your local media outlet (optional).
- Activate your one-year complimentary Student membership (\$27 value) of the Fabricators and Manufacturers Association (FMA), if not already a member.
- Notify NBT if you wish to receive a 365-day license for the student version of SolidWorks™ CAD Software.

For more information, visit the FMA website at:

www.fmamfg.org/foundation/scholarships/requirements

Application Deadline: September 30, 2024