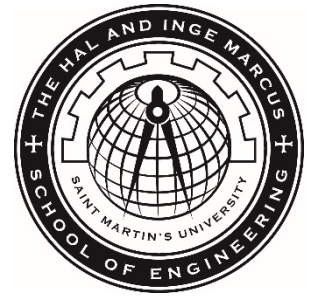




Saint Martin's
UNIVERSITY



CORNERSTONE

The Hal and Inge Marcus School of Engineering

Fall 2022- SEPTEMBER



WELCOME TO FALL SEMESTER!

Welcome back to our returning students and a hearty welcome-to-HIMSE to our new students, both first-years and transfers. After years of pandemic issues, requiring much patience and flexibility from all of us, we are back to our traditional face-to-face learning. We want to especially thank our faculty and staff for their hard work during difficult times. In this Year of Belonging, we want all students, staff, faculty and the monastic community to feel valued, heard, and supported on all levels.

This year we welcome a new **tenure-track regular faculty** member – **Dr. Shahlaa Al Wakeel**. While Shahlaa is not new to Saint Martin's, having been here as a full-time instructor since 2019, she was selected, after a nationwide search, to fill an Assistant Professor position in Mechanical Engineering. Congratulations, Shahlaa!

We also welcome some new **full-time instructors** to our faculty: **Farzin Bahadori**, MS Info Systems-Cybersecurity and MS Atomic & Molecular Physics, has joined our Computer Science department. He taught for SMU in years past as faculty at our JBLM campus, but most recently taught for City University in Seattle. Welcome, Farzin! **Jonathan Wiebersch**, MS Info Management/Project Management began teaching as an adjunct with the MSSA program (JBLM) in Spring 2019. He now teaches full-time for our Washington Veterans to Technology (WaV2T) program. Congratulations, Jonathan!

Last, but certainly not least, we welcome a new **part-time adjunct** to the HIMSE faculty: **Joel Nonnweiler**, MS Computer Systems – Software Engineering and MS Military Operational Art and Science, is a retired USAF Lt. Colonel, who was teaching Info Technology, Cyberspace Security, and Facility Management at the University of Hawai'i-West O'ahu. He will be teaching for the WaV2T program. Welcome to the HIMSE community, Joel!

We welcome back **Dr. Rico Picone**, Mechanical Engineering, from his 2021-22 sabbatical! He spent the year completing a new book, soon to be published. We look forward to announcing that accomplishment soon. Congratulations, Rico! **Dr. Frank Washko**, Mechanical Engineering, will be out on sabbatical for 2022-23. Enjoy this opportunity for focused scholarship, Frank!

As always, everyone here wishes each of you – our Saint Martin's HIMSE community – the very best of everything in your personal, professional, and academic lives!

ASCE CONSTRUCTION INSTITUTE STUDENT DAYS

One of our own CE students, **Sydney Brown**, won a scholarship to attend the ASCE Construction Institute's Student Days in Charleston, South Carolina, from July 29-August 2, 2022. Here's her report of the experience!

"I won the scholarship which paid for my flight, hotel room, and registration. When I applied, I assumed it was an average conference with lectures from industry professionals. I later found out that the conference was a competition. We had team leaders that emailed us for recruitment, based on the leader's resume and experience I picked a team I thought I would be the most compatible with. The first half of the conference included lectures that would help us build our project and presentation, and then it was off to the races. The project we were working on was a US-17 road widening project between Savannah, Georgia and Hardeeville, South Carolina; it is a real project that is in the process of being completed. Our proposal included a lump-sum bid, environmental plans, health and safety plans, construction plans, subcontractor bids and qualifications, and a project schedule. During the conference, the CI members were actively publishing different addendums, in the end we had a total of 26 addendums that we had to account for. Our final proposal was submitted with milliseconds to go, with a total of 37 pages. After submission, we had two hours to put together a 20-minute PowerPoint presentation that was presented to a board of professionals, including the contractors that are working on this project. My team walked in and confidently crushed the presentation. Since we went above and beyond and read South Carolina's construction laws, we were able to present various construction alternatives that saved time and millions of dollars. Not only that, when it came to ask questions, my team knew how to answer every question they threw at us. Our final bid was \$15,763,783.97, with a project duration of seven years. Even though we were the lowest bid, upon award the board explained that it was our level of understanding and confidence that won us the 1st place trophy." Congratulations, Sydney! Sounds like an amazing experience! [READ MORE](#)



Sydney Brown, 2nd from the right, with the other members of the winning project team. [READ MORE](#)



FACULTY NOTES – NOTED FACULTY

Dr. Shawn Duan, along with associated student authors, has had several papers accepted for presentation at the upcoming IMECE 2022 conference, to be held Oct. 30-Nov. 3 in Columbus, Ohio. The papers are "Simulating a Piezoelectric-Haptic Mems Actuator in Low-Frequency Vibration" (**Dr. Shawn Duan, Seth Carl, Alexander Benson**), "New Design for Implementation of 2-Degree-of Freedom Planar Parallel Robot for Use in Creating an Infinite 3D Printer") (**Dr. Shawn Duan, Miguel de La Melena**), and "Electrical Power

Generation from Biogas Upgrading (**Dr. Shawn Duan, Morgan Smith, Zachary Musgrove, Hao Hu, Yuxin Song**). Congratulations to these students and Dr. Duan!

Dr. Jill Walsh attended the STARS Workshop, June 16-17, at the University of Washington. The intention of this national action-oriented convening was to disseminate information about the Redshirt model to the broader STEM community so institutions can assess whether this model would fit the needs of their student population. The UW RedShirt program is an intentional 5-year model where students spend the first two years creating foundation and forming community. Components guiding the program, with the first four being paramount are: Intrusive Advising, Intensive Study Skills/Skills Development, Community Building, Mastery of Basics, Intensive Math and Science support, Career and Professional Development, Mentorship, and Financial Aid. Jill noted that the workshop's distinguished speaker, Dr. Shirley Malcom was incredible, sharing wisdom and suggestions for change. Since attending the workshop, Jill was inspired and enthusiastic about starting a similar program here with the tentative name of SHARP (Saints Have A RedShirt Plan)! Stay tuned for more in the future on this!

As part of her Mechanical Engineering PhD work, **Shelbie Davis, MME** (HIMSE Lab Manager/Instructor), had the privilege of attending the ribbon cutting of one of five Regional Test Centers (RTC) for solar technology in the nation. The RTC is at Michigan Tech in Houghton, Michigan. It is on the upper peninsula, where they receive a significant amount of snow in the winter. The site is a partnership between Michigan Tech and Sandia National Laboratory. It allows private industry to install and test new solar technology in cold/snow conditions. A U.S. Senator and Representative were in attendance along with senior scientists from Sandia National Laboratory. What a great opportunity, Shelbie! [**READ MORE**](#)



DEAN'S LIST FROM SPRING 2022

We're proud to recognize the outstanding students who made the Dean's List from Spring 2022 eligibility. Students with a GPA of at least 3.5, who took a full-time class load and did not drop any classes, are placed on the Dean's List. Students in **red** earned a 4.0 GPA for the semester. We are proud of all of our HIMSE students and their accomplishments and encourage you all to keep up the good work and put in your best effort on all you do!

Ishi Agrawal
Joseph Albers
Andrew Alfred
Austin Anderson
Hunter Anderson
Francisca Anunobi
Spencer Bergman
Sydney Brown
Mary Brownell
Finnley Butler
Ester Cabotage
Brandon Campbell
Christopher Carlisle
Scott Carolus
Manuel Castro
Gary Choi
Ethan Chung
Patrick Conerty

Nikolas Cook
Kyle Delos Santos
Chayson Dulatre
David Echaniz
Eli Eldridge
Archie Escobido
Brandon Essary
Holly Filyaw
Amelia Gish
Daniil Golyaka
Christian Gordon
Benjamin Gress
Christopher Hatakenaka-
Gibbs
Hao Hu
Kyal Huntley
Zeph Kaneshiro
Ian Kisamore

Jaewook Lee
Kyler Limata
Darran Lum
Keanu Lyons
Zachery Martin
Nathan Martinez
Shawn Mathews
Patricia McGarrah
Alexandria Miller
Benjamin Miller
Ruvim Mintenko
Lara Montefalcon
Zachary Musgrove
Ethan Nguyen-Hopkins
Garrett Orwig
Victor Phillips
Austin Piper
Parker Pontarolo

Krizia Ragotero
Robert Ramey
Caden Rebollo
Daniel Rivera
Realani Angelina Rulona
Cory Schramm
Andrew Schulz
Claire Skaggs
Morgan Smith
Logan Sousa
Justin Stratford
Carrie Stricklin
Edward Suppes
Cole Tinsley
Bailey Urasaki
Blaze Wong
Natalie Zender

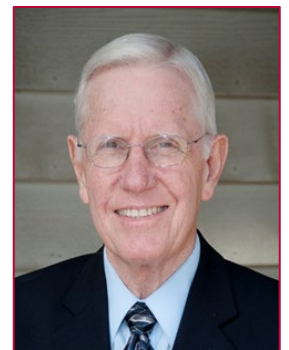
WAV2T GRADUATION

On August 19th, the students of Cohorts 6 and 7 of our WaV2T program graduated. Students, guests, faculty, and staff were treated to a keynote speech from **LTC William S. Noland, US Army Reserve**. LTC Noland is the Installation Coordinator of the Career Skills Program, Directorate of Personnel & Family Readiness Hawk Career Center. A total of 39 students graduated from the program and took part in The Pledge of the Computing Professional as well. Our August 2022 graduates are: Angel Aguilar, Minjae Ahn, Xavier Anaya, Ryheem Bonaparte, Ryan Brown, Tyler Cantu, Danielle Colbert, Andrew Dean, Brayana Elmore, Jeremy Foreman, Paul Foster, Shawn Gilliland, Donovan Guest, Eliseo Sandoval Hernandez, Cameron Hickey, Kaitlyn Hickey, John Howard, Colton Hveem, Matthew Jackson, Mason Julian, Justin Kim, Ryan Kongettira, Jorge Leal, Jianwei Liang, Eppie Lopez, Chongwei Ma, Dylan May, Albert Meza, Feng Miao, Tianhao Qui, Paul Sale, Oliver Siqueira, Storm Slater, Patrick Smallcomb, Ubaldo Valenzuela, Jorge Villafana, Anthony Willis, Primitivo Ysasi, and Xingchen Zhang. We wish them all the best of luck on their new technology career paths!



GET TO KNOW THE ENGINEERING ADVISORY BOARD

Thomas Skillings, PE, BSCE '78, is the founding principal of Skillings, Inc. He has over 44 years of experience in design, project management, peer review, QA/QC, and construction contract administration for roadway, drainage, water, sewer, and site civil design projects. He is a recognized leader in the State of Washington in the water reclamation field. Tom is a life member of APWA, where he received the Washington State Chapter's prestigious Roy Morris Award for recognition of "Outstanding Technical and Professional Accomplishments in Public Works". He is also a life member of the American Water Works Association and the American Society of Civil Engineers and is a member of both the Water Environment Federation and ITE.



Tom founded Skillings, Inc. engineering company in 1983, in Lacey, with the current office one block from the SMU campus. Some of the projects that he has worked on include: City of Yelm's 100% water reuse project, the first such project in the state; US-93 for the State of Montana; a 53-mile section of highway with 44 wildlife crossings; and US-12, a Design/Build project of a 11-mile corridor of new freeway for WSDOT. Some selected local projects include: The Farmers Market in Olympia, Lacey's Fred Meyer, Martin Village shopping center, and Heritage Park in Olympia. One of the more significant projects the company is currently working on is the I-405 Renton to Bellevue Design/Build project.

Tom enjoys mentoring younger staff and continues to work full-time at the company. While a lot of his past experience has been in transportation, his real passion is utility design and water/wastewater engineering.

Born in South Dakota, Tom attended a one-room schoolhouse where his father taught all eight grades. He moved to Olympia in 1959, graduated from Olympia High School, and attended Centralia College. Returning to Olympia, after serving in the Navy with two tours in Vietnam, Tom graduated from St. Martin's College in 1978, (thanks to the GI-Bill). Five years later, he started his own business.

He is married 50-years to Laura, with two children, Patrick and Nancy, and three grandchildren. Tom enjoys fishing and hunting, but spends most of his free time on or near the water. Tom says: I am very blessed to be married to a woman who says: "you can't have too many boats". Indeed, life is better on a boat. Thanks for your continued support of our HIMSE students, faculty, and programs, Tom!

OUR ALUMNI AND WHAT THEY'RE UP TO



Catherine Tran BSCE '20 started a new position in late July. According to her update email, "I just started my new role with the City of Woodinville as an Engineer 1. I work within Public Works to perform a variety of development permits reviews for public and private development. As a city contact for civil/site review, it's an exciting time to develop projects serving the local community! I would encourage students to engage with their learning in a comprehensive way that challenges design and engagement in the communities they are a part of. HIMSE's curriculum challenges graduates to be not only credible engineers, but also well-rounded members of society. Whether it's an internship or community service, engaging with the community will take you far!" Thanks for those alumnus words of wisdom, Catherine, and best of luck on the new position!

Abdullah Ghurab BSCS '19 was selected after auditions to be the welcoming speaker for ARAMCO's 31st STEP program completion ceremony on June 2, 2022. The STEP program is for new hires to network, socialize, and compete on teams with each team developing a business innovation. Congrats on this honor! He also recently celebrated his one-year anniversary working at ARAMCO as a System Analyst. Congratulations all around, Abdullah!

Marcelino (Marc) Figueroa BSME '19/MME '20 recently contacted us with an update. "I currently work for the Naval Nuclear Laboratories (NNL) as a Design and Analysis Engineer for New Design nuclear reactor concepts for the US Navy. I personally am on a special assignment assisting with research being conducted by Professors and colleagues from schools like MIT, Penn State, and Texas A&M to name a few. We have been tasked to design a new Advanced Test Reactor (ATR) for the Department of Energy at the International Nuclear Laboratories (INL), which is currently in SE Idaho. None of what I currently do or have had the opportunity to take part in would be possible if it were not for Saint Martin's Engineering program and the professors I had the pleasure to learn from. Please let me know if/how I can help." Wow – thanks, Marc! We're happy to have great alumni like you, who continue to work with us on our mission. Once a Saint – Always a Saint!

James Malloy BSME '16, Regional Sales Engineer at Neenah Enterprises, Inc. recently co-presented at the 2022 Stormwater Quality BMP Workshop in Honolulu, on stormwater capture and Neenah Foundry's unique engineered solutions. Congratulations, James!

Mohammed Alharbi BSCE '20 is working as a civil engineer for The Red Sea Development Company in their internal audit department, which oversees the firm's technical and engineering concerns. Red Sea is a real estate developer working on some of Saudi Arabia's mega-projects. Sounds like a great challenge, Mohammed!

Shawn McCann, BSCE '21, told us that he recently completed his first year in training and all requirements to become a Transportation Engineer 2 with WA State Department of Transportation, working in Aberdeen. Congratulations, Shawn!

Benjamin Wadowski (2nd from rt in photo to the right) BSME '20 recently participated at the 9th Annual Auburn Mechanical, Inc. Charity Golf Classic. He proudly informed us that the event raised over \$42,000 with proceeds going to the American Heart Association, Auburn Food Bank, and Bonney Lake Food Bank. Great work, Benjamin, and everyone at Auburn Mechanical, Inc.!

Megan Taylor BSME '21 sent us an update: "I am currently working as a Research Assistant at the Boeing Advanced Research Center (BARC). It's a Boeing-affiliated engineering research lab at UW. My research team and I received a grant from JCATI for our project on Non-Destructive Inspection. We are using an industrial robot arm equipped with ultrasonic probes to scan composite airplane parts of different size and shape for defects before they are put into production. This is important because the new Boeing aircrafts are made of about 50% composite material because it is lighter, cheaper, and sometimes stronger than typical materials. This way Boeing can be sure all parts will hold their integrity as a safety measure. I am currently working on a small-scale version of this, but we plan to move to a larger setup in the Advanced Composite Center (ACC) at Sandpoint (Seattle)." Thanks for keeping us in the loop, Megan, and keep up the great work!



CALENDAR AND EVENTS

- ❖ Aug 29 Fall 2022 classes (Main-00, 08, 10) begin
- ❖ Sep 2 Add deadline (Main-00)
- ❖ **Sep 5 HOLIDAY – Labor Day**
- ❖ Sep 6 Sessions 08/10 – add/drop deadline
- ❖ Sep 8 Mass of the Holy Spirit / Presidential Inaugural Community Events (no classes; except Nursing students, graduate courses, evening courses, and courses that only meet only once a week)
- ❖ Sep 9 Drop deadline/Attendance Due (Main-00)
- ❖ Sep 26 Sessions 08/10 – mid-term grades due
- ❖ Oct 7 Sessions 08/10 – last day for withdrawal
- ❖ Oct 10 Indigenous Peoples’ Day (JBLM campus closed; Lacey open)
- ❖ Oct 22 Sessions 08/10 – last day of classes
- ❖ Oct 24 Mid-term grades due (Main-00) AND Sessions 09/11 classes begin
- ❖ Oct 24-25 Fall Break (Lacey campus – Main 16-week sessions only)
- ❖ Oct 25 Sessions 08/10 – final grades due
- ❖ Oct 31 Sessions 09/11 – add/drop deadline and attendance due
- ❖ Nov 2 Advising Day – no Lacey classes
- ❖ **Nov 11 HOLIDAY - Veterans’ Day/Saint Martin’s Day**
- ❖ Nov 14 Priority registration for Spring 2023 starts
- ❖ Nov 18 Last Day for Withdrawal (W grade) – Main 00
- ❖ Nov 21 Sessions 09/11 – mid-term grades due
- ❖ Nov 23 Thanksgiving Recess – no Lacey classes (University open) JBLM Classes meet.
- ❖ **Nov 24-25 HOLIDAY - Thanksgiving Break**
- ❖ Dec 2 Sessions 09/11 – Last day for withdrawal
- ❖ Dec 5-8 Study Week -Last week of classes
- ❖ Dec 9 Saint Thomas Aquinas Study Day (no classes)
- ❖ Dec 12-16 Finals week
- ❖ Dec 17 Conferral date for fall graduates AND last day of classes for Sessions 09/11
- ❖ Dec 20 Sessions 09/11 – final grades due
- ❖ **Dec 17- Jan 8 Winter Break**
- ❖ Dec 31 New Year’s Eve
- ❖ **Jan 1 HOLIDAY-New Year’s Day**
- ❖ Jan 7 Residence Halls Open
- ❖ Jan 9 Classes Begin (Main-00/08/10)



CONTACT US

If you are one of our HIMSE community members (students, faculty, staff, EAB, or alumni) and have anything to share (position/company changes, professional achievements, or personal life accomplishments–wedding, children/grandchildren, anniversaries, etc.), please send your input to engineering@stmartin.edu. We love hearing from our community and featuring them in our newsletter!



DEAN'S CORNER

This week we bid farewell to **Dr. J. Richard Beer** and his wife, **Ellin Beer**. Richard came to Saint Martin's from the University of San Francisco in 2010 as the inaugural dean of the School of Business. He served eight years as dean, highlighted by securing the initial accreditation of the business school. He also served as interim dean of HIMSE from 2014-2015, and chaired the search committee that brought me to campus. In 2018, he moved home to the computer science department, and served as interim chair from 2021-2022. Richard has been an invaluable colleague and was a great mentor when I arrived at SMU.

Ellin Beer taught English as a Second Language at SMU from 2011 to 2020, and was an inspiration to hundreds of our international students. Of note, she graciously entertained her international students at her home, giving them a chance to deepen their understanding of our culture.

They will be sorely missed as they relocated to California to be closer to children and grandchildren.

As I write this, final preparations are nearly complete for our ABET review of the Mechanical and Civil Engineering programs. We anticipate a very helpful visit from our accreditation team. Drs. Dintie Mahamah and Shawn Duan have been diligently fielding questions from our reviewers as we get closer to the on-site visit 18-20 September.

As well, we are preparing the readiness review for the initial accreditation of the BS Computer Science and BS Information Technology programs. Dr. Beer and Dr. Radana Dvorak, our new chair of computer science, will submit the review at the end of September.

It has been very gratifying to see students back on campus this week. The strength of HIMSE is its people: faculty, staff, students, alumni. As another busy year gets underway, we continue to educate our students and prepare them for both successful careers and lives of service to others.

Thank you for all you do to assist us in this mission!
Best wishes,

David H. Olwell, Ph.D., Dean
Hal & Inge Marcus School of Engineering



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