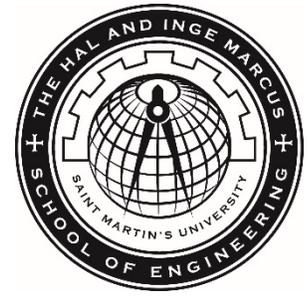




Saint Martin's  
UNIVERSITY



# CORNERSTONE

The Hal and Inge Marcus School of Engineering

Fall 2020 - September



## WELCOME TO FALL SEMESTER 2020!

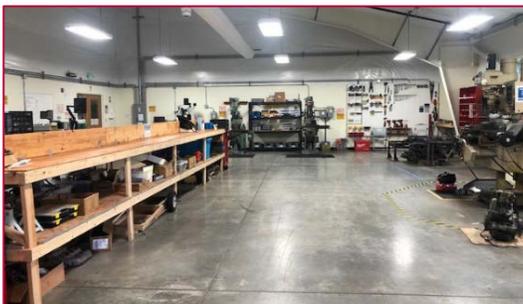
Welcome to all our new students and faculty! Welcome back to our returning students, faculty, board, and outside supporters! 2020 has been a year of patience, tolerance, and change as we adjust to many differences in how we work, teach, and learn! We have had to be flexible and act quickly regarding all of these changes and we are very proud of our HIMSE 'family' for your patience and grace in dealing with these issues over the spring, summer, and moving into fall.

We are very glad to be offering a modified face-to-face schedule of classes and see many students, faculty, and staff return to campus! We are hopeful that spring semester will see a more complete return to campus. For this semester, we offered face-to-face, online, and blended hybrid course offerings and have had success so far with them. It continues to be a challenge, but we are all adjusting well having experience with the latter portion of Spring 2020 and Summer 2020.

We are thankful for the admirable support of the full Saint Martin's team in ensuring the health, safety, course, and office readiness for the success of our students, staff, and faculty!

## LAB CLEANUPS

Over the summer, Ms. Shelbie Davis, Dr. Jill Walsh and several CE students cleaned and organized the Panowicz Labs, so they would be ready for the fall course work! Thanks to all involved with the project! They look great!





## VISITING RESEARCH ASSISTANT

HIMSE is pleased to welcome Finbarr Obierefu, a graduate student from the Université Bourgogne Franche-Comté. He is joining us for six months to work with Dr. Rico Picone and MSME graduate student, Dane Webb, on an Artificial Intelligence+Haptics research project. I had the pleasure of interviewing him recently. Welcome to HIMSE, Finbarr!

**How did you choose to come to Saint Martin's?** When I was in France, I had some difficulties with some of the courses during my master's degree work. After watching some of Dr. Rico Picone's lectures on YouTube, which were fantastic, I got in touch with him. He sent me the soft copies of the materials he used in teaching the course. I studied them and wrote to thank him for his help. Ever since then, he has been an academic mentor to me. His materials and methods of teaching are very clear and easy to understand.

**Tell me about yourself.** I was born in eastern Nigeria in Akatta in Oru East LGA, Imo State. I went to the Catholic seminary for my secondary school. After which I gained admission to study a bachelor's degree in Electrical/ Electronic Engineering at the Michael Okpara University of Agriculture Umudike in Abia State, Nigeria, which I received in 2017.

**Tell me about your academic experience.** I went to high school and received my bachelor's degree in Nigeria. I then received a scholarship to study Mechatronics with a specialty in Robotics and Control at the Université Bourgogne Franche-Comté in Besançon, France, starting in 2018. I have completed both the first and second years of my master's program coursework, and now I am here as a research scholar to work with Dr Picone as my supervisor on a research project in Artificial Intelligence. I will be writing my thesis based on this research to complete my master's degree back at the university in France. I will send reports to them periodically because I was awarded funding by that university.

**What is your ultimate goal?** I want to become an expert in artificial intelligence. Due to the problems with security, terrorism and persecution of Christians in northern Nigeria, I have the intention of working with security agencies in Nigeria in the future. I will use artificial intelligence technology as a positive bridge between people and technology to help eliminate some of these problems.

**Anything final to add?** I am so glad for this opportunity to work with Dr Picone at Saint Martin's University. This is my first visit to the United States, so I want to get as much out of this experience as possible. When I came here I realized that not only does Saint Martin's offer excellence in academics, but also strives to instill discipline and confidence in their students.

## HIMSE NEW/TRANSITIONING FACULTY AND STAFF

**Dr. Guangyan Li** is joining us as visiting faculty for the 2020-21 academic year. Dr. Li comes to us from a recent teaching assignment at The Evergreen State College. Dr. Li has his undergraduate degree in Electrical Engineering, with masters in both Physics and Computer Science & Engineering, as well as a doctorate in Physics. He has taught intro to computer science, programming, operating systems, data structure-algorithms, C++ labs, Python, and general physics at multiple institutions. Welcome, Guangyan!



**Dr. Md Mahbub Alam** joins us this fall as adjunct faculty to teach for the Masters in Environmental Engineering program. Dr. Alam has worked as an environmental engineer for the WA Dept. of Ecology for the last 16 years. He received his Ph.D.--CE with environmental emphasis (2004), Grad Certificate-- Interdisciplinary Environmental Biogeochemistry (2003), and M.S.—Environmental Engineering (2000) from WSU (Pullman, WA). He also received an M.S.--Water Resources Engineering (1998) and B.S.—Civil Engineering (1995) from Bangladesh University of Engineering and Technology. Welcome, Mahbub!

**Marcus Reum** has been hired as a full-time Instructor for the MSSA program starting Fall 2020. Mr. Reum has been teaching for the program as a part-time adjunct starting in Spring 2020. He is an Intelligence and Risk Management professional with over 20 years of government and private sector experience. He has a Master of Science in Information Systems (2002) from Minot State University. Congratulations, Marcus!





**Robert Bone**, former Director of Industry Sponsored Programs (MSSA) has left HIMSE and moved to Colorado Springs to pursue new life and career adventures. During that time, the MSSA program has grown and improved significantly. Working with the CSC faculty, Robert did an outstanding job of aligning the courses we offer to the needs of the program. His efforts to find, recruit, and develop faculty have contributed greatly to the success of the program. Thanks, Robert, and best wishes!

**Mark Wright**, formerly a full-time instructor, for both MSSA and Computer Science, is now the Director of Industry Sponsored Programs (MSSA). Mark has been an outstanding and tireless faculty member in the program and has deep knowledge of the IT industry. Mark will continue to teach half-time in the program. As director, he will primarily focus on instructor and curricular issues. Congratulations, Mark!



**David Motz**, HIMSE Academic Advisor, is transitioning from full-time employment at Saint Martin's to teach middle school students at a private institution. Mr. Motz has assisted hundreds of Saint Martin's students to degree completion as a full-time advisor since 2012, working with both the Extended Learning Division at JBLM and HIMSE here on the Lacey campus. Students, staff, and faculty will miss his on-campus presence and dedicated work on behalf of all! Thank you and best wishes on your new adventure, Dave!

**David Montore**, joins us as a new Site Manager (technically a Microsoft employee) for the MSSA program. He is managing the JBLM cohorts for our program. Mr. Montore is a recent MSSA grad with 17 years' experience coaching and advising foreign military leaders from South and Southeast Asia with Army Special forces. Welcome, Dave!



**Carlos Rivera-Salamanca** joins us as a new Site Manager (Microsoft) for the MSSA program and assists managing our increased number of Lacey cohorts. Carlos is a 2020 MSSA graduate and Army veteran. He has worked for General Dynamics as an Army instructor and for Raytheon as a Knowledge Management Consultant. Welcome, Carlos!

**Ann Parthemore**, who had been the JBLM site manager, has departed to relocate to King County. We will miss her and her many contributions to the success of the MSSA program and its students. Farewell, Ann!



**Kelsey Hagler** recently started working for HIMSE as Co-Director of the MSSA Program. Ms. Hagler is a recent MSSA graduate, and a former Army officer. She brings an expertise in human resource systems with her. As co-director, Kelsey will be primarily responsible for our myriad of efforts for recruiting and enrolling students, as well as our back-office processes. Welcome, Kelsey!

This fall semester we are excited to offer an online Virtual Reality course taught remotely by **Dr. Cynthia Calongne** of Colorado Technical University. Dr. Calongne worked for Air Force Space Command prior to teaching in 1996, as a software engineer and systems programmer. Her research group has been designing space simulations for the flight to Mars over the last 12 years. Welcome, Cynthia!



## KNIFE COMPETITION

Led by faculty advisor **Ms. Shelbie Davis**, students **Jamie Johnson, Nathan Robinson, Samuel Nilsen, Elam Borghi** and **John Jones** competed in 2nd Annual Cast in Steel competition. This year's theme was Bowie Knife and our team partnered with Bradken-Tacoma, who specialize in highly engineered large, complex, mission critical steel, stainless steel, duplex monel and nickel base castings for the energy, industrial, and military markets. This competition, sponsored by the SFSA (Steel Founders' Society of America) Foundation, focused on the use of modern casting tools such as computer modeling, alloy development and selection, and additive manufacturing; to design and produce a functioning cast Bowie Knife. We are very proud of our team, who performed admirably considering the issues raised by the pandemic. Out of the 40 schools who committed to submitting knives for judging, only 14 schools completed the project. Shelbie reported that they are already brainstorming on the 2020-21 competition—Thor's Hammer!



**[SEE MORE \(our team video\)](#)** **[READ MORE \(more on the competition\)](#)**

## VIRTUAL SUMMER GAME CAMPS

Computer Science students, **Ethan Worden** and **Joshua Schulz**, and **Dr. Mario Guimaraes** successfully offered and ran six virtual game camps and three free mini-camps over the summer. Beginner campers were introduced to object-based programming, graphic and sound files, and basic animation in Gamemaker. Intermediate and advanced campers worked with Unity, a 3D game engine and the number one tool in the industry. [READ MORE](#)

## CEFET PARTNERSHIP SUCCESS

Through a partnership with CEFET (Centro Federal de Educação Tecnológica) of Rio de Janeiro, Brazil, we were able to run a very successful data mining class for our MSCS graduate students over the summer. **Drs. Eduardo Ogasawara and Eduardo Bezerra** taught the class. Graduate student, **Jason Montgomery**, had this to say about the experience, "Data Mining this summer with our Brazilian professors expanded my Python, R, and ML knowledge base and was immediately applicable to my current data science work." Thank you Dr. Ogasawara and Dr. Bezerra!

## SUMMER CHECK-IN

CE student **David Stride** reported: "This summer, I worked for the US Army Corps of Engineers as an Engineering Trainee/Intern for Construction Division. The current project we are working on is the Mud Mountain Dam Fish Passage Facility (\$126M), resulting in the largest facility of its kind in the world. The project is in full swing of the second phase of construction. The main focus of our office is Construction Contract Administration (CCA). My duties are quickly evolving with the goal to be independently operating as a Contracting Officer Representative (COR). I'm working directly on Contract Modifications (BCD's, RFP's, MOD's). **Advice to HIMSE students:** Utilize the resources at your disposal, professional organizations and career fairs are awesome outlets to build or strengthen your networking, which will be essential for your career." Great advice, David!



## FACULTY NOTES – NOTED FACULTY

**Dr. Dintie Mahamah** served as an National Science Foundation reviewer for S-STEM Track 2 (Design and Development: Single Institution) grants over the summer. Thanks for your willingness to serve the greater Engineering community, Dintie!

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Congratulations to **Dr. Shawn Duan, William Von Dolln, Ali Alhalwachi, Omar**

**Moreno-Flores, Ms. Shelbie Davis, Khalid Altamimi, Matthew Torrey, Violet Cunningham, Alexander Tilton, and Dylan Maertens** on the publication of technical papers. These three technical papers were accepted by ASME IMECE 2020 proceedings after rigorous blind-peer review, and will be presented in the ASME International Mechanical Engineering Congress & Exposition Nov. 13-19, 2020. These eight mechanical engineering students co-authored the papers respectively, guided by Dr. Duan. Seven were undergraduates and one a graduate student when the papers were written.

1. Von Dolln, W., Duan, S. Z. (2020) "Simulation Of A Hydraulic Pulsation Dampener Used For Pulsation Reduction Induced By Vibrations In A Hydraulic System" ASME 2020 IMECE Proceedings, Paper # IMECE2020- 24231, pp. 1-7.

[READ MORE](#)

2. Alhalwachi, A., Moreno-Flores, O., Davis, S., Torrey, M., Altamimi, K., Duan, S. Z., (2020) "Design and Assembly of a New Methane Generation System for Energy Conversion from Biowaste" ASME 2020 IMECE Proceedings, Paper # IMECE2020- 23482, pp. 1-7. [READ MORE](#)

3. Cunningham, V., Tilton, A., Maertens, D., Duan, S. Z. (2020) "Innovative Design Of Indoor-outdoor Powerchair" ASME 2020 IMECE Proceedings, Paper # IMECE2020- 23497, pp. 1-10. [READ MORE](#)

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**Dr. Jill Walsh** had her co-written article "Using industry competition to augment student education" published in the PCI (Precast/Prestressed Concrete Institute) Journal-Bridges May-June 2020. This paper presents a case study of participation by a small private liberal arts institution in the PCI Big Beam Contest. Congratulations, Jill! [READ MORE](#)

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Congratulations to **Dr. Dintie Mahamah** on becoming an ASCE Life Member! Per the ASCE Foundation:

"Dear Dintie,

On behalf of the ASCE Foundation, my sincere congratulations on joining the ASCE Life Member community this year! Becoming an ASCE Life Member is truly an honor and speaks volumes to your commitment to ASCE and passion for our civil engineering community.

Sincerely – Christine Williams, CFRE, Aff.M.ASCE, Executive Vice President"

## OUR ALUMNI

### RECENT GRADUATES/NEW ALUMNI

**Kelsey Buckles, MME '20:** [shared from an email via **Dr. Daniel Einstein**] "My first day at NASA Marshall Space Flight Center was yesterday [8/31/20], working as an aerospace engineer in the structural dynamics and integration branch. My team is working on the human landing system that will be used to put the first woman and next man on the moon in 2024. Pretty cool stuff! Thank you SO much for all of your mentorship and guidance throughout my time at SMU, I appreciate it more than you know."

### ALUMNI- PLEASE KEEP IN TOUCH!

Please email us about your latest news – new positions, promotions, speaking engagements, personal milestones, etc. We want to let your fellow alumni know all about it and share your achievements with our students, faculty, and staff! Please email us at: [SMUHIMSEAlumni@stmartin.edu](mailto:SMUHIMSEAlumni@stmartin.edu). You can also email me directly at [tleger@stmartin.edu](mailto:tleger@stmartin.edu).

## CALENDAR AND EVENTS

- ❖ Sep 15-Oct 15 **LatinX/Hispanic Heritage Month**
- ❖ Sep 24 (Th) HIMSE Faculty-Staff Mtg 11A-Noon
- ❖ Sep 24 (Th) EAB Meeting 4-6P
- ❖ Sep 28 (M) Mid-Term Grades due (08/10)
- ❖ Oct 1-31 **LGBT History Month**
- ❖ Oct 8 (Th) HIMSE Faculty-Staff Mtg 11A-Noon
- ❖ Oct 12 (M) **Indigenous People's Day**
- ❖ Oct 24 (Sa) Last day of Fall 08/10 terms
- ❖ Oct 26 (M) Mid-Term Grades Due (00)/ Fall 09/11 begin
- ❖ Nov 1 (Su) **Daylight Savings Ends (turn back 1 hr)**
- ❖ Nov 2 (M) Add/drop Deadline & Attendance Count for 09/11 terms  
Gala Online Event (evening)
- ❖ Nov 2-6 Undergraduate advising week
- ❖ Nov 11 (W) **Veterans Day/ St Martin's Day (school closed)**
- ❖ Nov 17 (Tu) HIMSE Faculty-Staff Mtg 11A-noon
- ❖ Nov (F) Last day of face-to-face classes for rest of Fall semester. Goes to all on-line.
- ❖ Nov 23 (M) Mid-term grades due (09/11) and Priority Registration start for Spring 2021
- ❖ Nov 23-27 **Thanksgiving Holiday Week (no classes/HIMSE offices closed all week)**
- ❖ Nov 26-27 **Thanksgiving Break (school closed)**
- ❖ Nov 27 (Fr) **Native American Heritage Day**
- ❖ Dec 3 (Th) **International Day of Disabled Persons**
- ❖ Dec 7-11 Study Week
- ❖ Dec 10 (Th) HIMSE Faculty-Staff Mtg 11A-noon
- ❖ Dec 14-17 Final Exams
- ❖ Dec 17 (F) MSSA Fall Cohorts Graduation
- ❖ Dec 18-Jan 11 **Winter Break (no classes)**





## DEAN'S CORNER

As I write this, we have finished the first two weeks of fall semester here at the Hal and Inge Marcus School of Engineering. Campus has been fairly quiet – many students and faculty are taking advantage of online classes to reduce risk and the buildings can seem eerily empty at times. Those students and faculty I do see are in good spirits and thankful for the opportunity to learn in person and to experience the Saint Martin's distinctive sense of community. So far everything is going well, although we have now added fire and smoke to our list of worries.

Dean Olwell congratulates **Marques Santos** for making the Spring 2020 Dean's List!

Many colleagues worked tirelessly to prepare for this fall. It has been challenging for the faculty who have had to prepare for multiple possibilities and accommodations. They responded with total professionalism and team spirit, dedicated to doing all they can for student learning and success. I'd like to send a special "shout out" to **Dr. Corrie Walton-Macaulay** and to **Ms. Shelbie Davis** for their efforts to help get the lab complex COVID-ready for the fall, and to **Ms. Tam Léger**, who helped prepare classrooms and did a hundred other things for the start of classes. [Editor's Note: And many thanks to Dean Olwell for his outstanding leadership and example!]

Earlier you read about major personnel transitions in the MSSA program. I am truly grateful for the many years of leadership that **Mr. Robert Bone** provided the MSSA program as director. He is responsible for the life-changing opportunity that we have offered to now over 600 veterans to begin new careers as IT professionals. I am confident that **Mr. Mark Wright** and **Ms. Kelsey Hagler** will fill his shoes, ably assisted by our two new site managers from Microsoft, **Mr. Carlos Salamanca** and **Mr. Dave Montore**.

Speaking of transformations, SMU was recently named as the 40<sup>th</sup> most transformative university in the nation by Money Magazine, moving up 9 places from last year. Here's what Money magazine said: "It's not surprising that elite schools report high graduation rates or alumni success. What's impressive is when students beat the odds by doing better than would be expected from their academic and economic backgrounds. We call this a college's value add." We were also named the #1 best value among small private colleges in the state of Washington.

That has been the mission of Saint Martin's University for 125 years: transforming students through the interaction of faith, reason, service, and community. Thank you for being a part of this success, and for your continuing support of our students, programs, faculty, and staff.

Best wishes,  
Dave

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



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