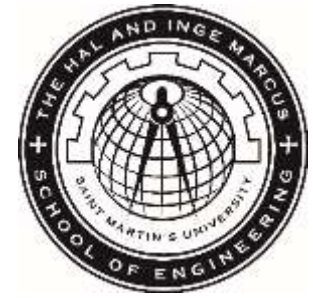




Saint Martin's
UNIVERSITY



CORNERSTONE

The Hal and Inge Marcus School of Engineering

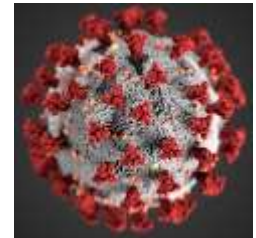
Spring 2020-April



CORONAVIRUS - COVID-19!

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic. Common symptoms include fever, cough, and shortness of breath.

Saint Martin's administration tracked the situation and our state's response closely from the start. In February, we were all asked to prepare for the possibilities of remote teaching and campus closure. When these possibilities became realities, we were ready. All of us had an adjustment, but, to date, we are successfully teaching out spring semester using a variety of methods. We hold all of our meetings, situation updates, and the majority of our current courses via Zoom. Based on a state prohibition of large group gatherings, most of our in-person events have been cancelled or postponed. In this newsletter, we will go over the plans for our HIMSE spring events and summer courses.



Covid-19 preventive measures to reduce the chances of infection include staying at home, avoiding crowded places, washing hands with soap and water often and for at least 20 seconds, practicing good respiratory hygiene and avoiding touching the eyes, nose or mouth with unwashed hands. The CDC has recommended the use of cloth face coverings in public settings, in part to limit transmission by asymptomatic individuals.

Social distancing strategies aimed to reduce contact of infected persons with large groups by closing schools and workplaces, restricting travel, and cancelling large public gatherings were state- and university-mandated. Distancing guidelines include that people stay at least 6 feet apart. Governor Inslee's stay-at-home order, and subsequently our campus closure, is currently in place through May 4, though Inslee has warned that it is possible the order may have to be extended once again. Part of the equation is if the necessary testing and contact tracing is in place by then.

With very few exceptions, we are all currently staying and/or learning/working from home and our administration continues to monitor our state's response and mandates in determining Saint Martin's situation, keeping the health and safety of students, faculty, and staff at the forefront of any decisions.

TEACHING REMOTELY!

Here are some photos of our faculty and students teaching and learning while staying at home!

Dr. Liza Bornasal at the microphone, teaching CE 499!



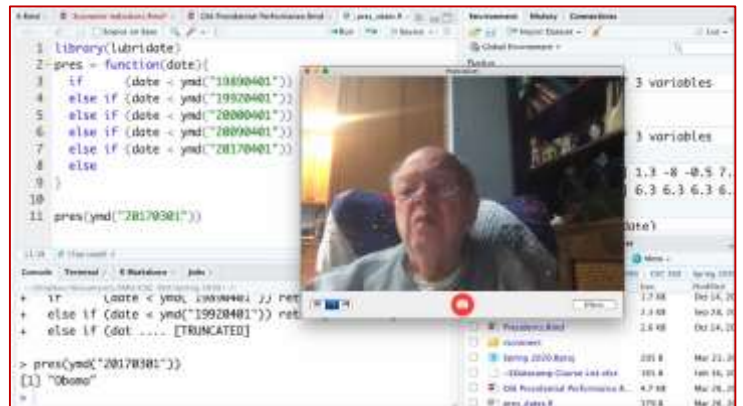
Dr. Xuguang Chen gets a Computer Science lecture ready!



Dr. Jae Chung shows he's ready to teach his MEM 650 students!



Dr. Harold Nelson prepping for CSC 360!



Mr. Marcus Reum teaching an MSSA course!



Dr. Corrie Walton-Macaulay and his GE 207 students sharing a Zoom "moment"!



FEBRUARY'S ENGINEERING AWARENESS WEEK --A BIG SUCCESS!

Engineering Banquet

We hosted this year's Engineering Banquet on February 21st in Saint Martin's Norman Worthington Conference Center with close to 100 attendees. Our guest speaker was entrepreneur success, **Mr. Craig Rabin**, President and inventor of The AirHook -- a two-in-one solution for airplane travel: a stable drink holder and a secure mount for an electronics device that attaches to the tray table while closed.

Mr. Rabin, of Woodinville, had everyone's undivided attention as he spoke to students, faculty, staff, and our other honored guests about his journey to success. In addition, about 20 guests with a lucky star on their program were able to take an AirHook home with them! We're sure that many of our guests were inspired by his story!

[READ MORE1](#) [READ MORE2](#)



Mr. Craig Rabin speaking to Engineering Banquet guests

Engineering Awareness Day

The following Wednesday, February 26th, we hosted 80 local area high school students for our annual Engineering Awareness Day. These students were welcomed by **Dean Olwell** and then broke into smaller groups to go through five Engineering and Computer Science stations to learn more about some of the programs our school offers. Leading these informative and interactive stations in both Cebula Hall and Panowicz Foundry were **Dr. Dintie Mahamah** and **Mr. David Jansen** (Environmental Engineering), **Dr. Mario Guimaraes** (Video Game Development), **Dr. Jill Walsh** (Materials Testing), **Dr. Rico Picone** (Robotics), and **Dr. Shawn Duan** and **Dr. Liza Bornasal** (Senior Design).

Dean Olwell welcomes participants to Engineering Awareness Day (EAD)



David Jansen presenting at environmental engineering station



Dr. Guimaraes giving one of the student groups an overview of video game development



Dr. Walsh demonstrates materials testing for a group of EAD students



Dr. Picone talks about the basics of our HIMSE robotics program



Dr. Bornasal (R) discusses senior design projects with Jessica Martin (L) and Justin McArthur (C)



SPRING CAPSTONE PROJECTS REVIEW!

With the current coronavirus restrictions, this year our capstone review process was done entirely virtual! After campus closed and we could no longer do in-person presentations, the student teams stepped up to not only develop their presentation slides, but to record team members participating in a virtual presentation of their respective projects. They then posted presentations to YouTube, along with any additional project materials/videos for evaluators to review. Our evaluators then reviewed all of the videos and materials, completed an electronic judging sheet on each project, and made their selection for the best project. All of these evaluations and selections were then compiled and evaluations were distributed to all teams and evaluators.

Our evaluation teams were comprised of Engineering Advisory Board members (former alumni and faculty, and outside partners) and community professionals who generously gave of their time and expertise to review the **23** senior design projects in our three degree disciplines! Many thanks to these esteemed evaluators for their patience, cooperation, and expertise throughout this new process!

Civil Engineering:

Brian Ziegler, Waite Dalrymple, Pasco Bakotich, Sharon Zimmerman, and Tom Skillings

Computer Science:

Gordon Carlisle, Terrence Brown, Sean Cross, Andrew Harris, and Manzooruddin Mohammed

Mechanical Engineering:

David Olwell, Jim Harmon, Pat McCarty, Paul Roush, and Ralph Jensen

We are pleased to announce the projects selected by our evaluators as **BEST** in each discipline as follows:



Civil Engineering: Roundabout: Washington-Manette Bridge

Faculty Advisor: **Dr. Floraliza Bornasal**

Team Members: **Catherine Tran, Jessica Martin, Brenda Arellanoquintana, Abdollah Alzاهر, Yasir Alshehri**

[READ MORE](#)

Computer Science: Pi in the Sky (Pi Cluster Server Build)

Faculty Advisor: **Dr. Harold Nelson**

Team Members: **Sanju Byanjankar, Joshua Schulz**

[READ MORE](#)

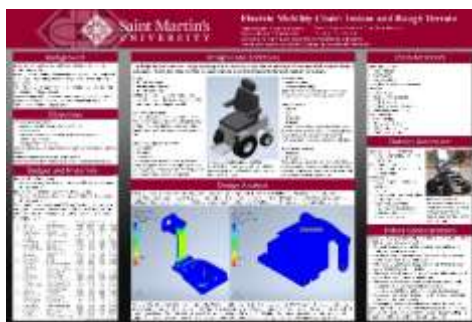


Mechanical Engineering: Electric Mobility Chair

Faculty Advisor: **Dr. Shawn Duan**

Team Members: **Violet Cunningham, Dylon Maertens, and Alexander Tilton**

[READ MORE](#)



Congratulations to these winning teams! Many thanks to our faculty advisors for their expert instruction, our partners for their mentorship, and ALL of our student teams for their hard work throughout the year on their capstone projects!

FALL HIMSE DEAN'S LIST

We haven't had a newsletter since the Fall 2019 HIMSE Dean's List came out. Congratulations to everyone on the list! Students with a GPA of at least 3.5, who took a full-time load and did not drop any classes, are placed on the Dean's List. Only 3% of our engineering and computer science students earned a perfect 4.0 GPA for the Fall 2018 semester and are highlighted in red below. On behalf of the faculty and staff of the Hal and Inge Marcus School of Engineering, we salute your academic accomplishment and wish you continued success in your studies and future endeavors. We are all very proud of your scholarly achievements!

Ishi Agrawal
Reine Albite
Ali Mansour Abu Ali
Robert Allen
Bndar Alutaibi
Gabriel Alvarado
Turki Andergiri
Francisca Anunobi
Landon Armstrong
Braden Baker
Kyle Bambauer
Abdulrahman Boudi
Joseph Brascher
Angus Breon
Zachariah Brincken
Sydney Brown
Joshua Burbach
Rachel Burk
Finley Butler
Christopher Carlisle
Scott Carolus
Edgar Casitas
German Chavez
Ethan Chung
Patrick Conerty
Frances Constantino
Nikolas Cook
Riley Crabb
Adam Crain
Emily Crawford
Violet Cunningham
Kyle Delos Santos
Zoe Djafarian
Lee Duan
Zachary Eaton
Kenneth Echevarria
Parker Elliott

Mark Englert
Brandon Essary
Keevan Forbes-Kashani
Jaqueline Freeman
Alex Garaté
Chase Goetz
Spencer Hampton
Matthew Hancock
Christopher ~~Hatakenaka~~
Gibbs
Devon Henspeter
Greer Hurley
Tanner Inouye
Joseph Jungers
Zeph Kaneshiro
Kaegan Ketola
Ian Kisamore
Richard Krueger
Peter Kruithof
Andrew Kumley
Kazuma Lane
Russell Larsen
Marcus Lenker
Rocky Lightfoot
Alex Lupulyak
Erin Macedo
Dylon Maertens
Anna Marshall
Jessica Martin
Nathan Martinez
Justin McArthur
Jared McCann
John McCarthy
Troy McCormick
Patricia McGarrah
Brooks McKinney
Christian Merrikin

Alexandria Miller
Omar Moreno-Flores
Lawrence Newcomer
Samuel Nilsen
Jean Ochoa-Diaz
Kendyl Otter
Victoriya Polishchuk
Parker Pontarolo
Nehemiah Protsman
John Rambo
Caden Rebollo
Garrett Rhodes
Daniel Rivera
Nathan Robinson
Patrick Ross
Andrew Schulz
Joshua Schulz
Joshua Schwartzlow
Ranele Lyn Serrano
Eric Smith
Morgan Smith
Conner Snow
Raquel Taijito
Christopher Tanner
Megan Taylor
Alice Thompson
Julianne Thompson
Alexander Tilton
Matthew Torrey
Gabriela Virgen
Benjamin Wadowski
Colton Walker
Paul Wallace
Colton ~~Winters~~
Madeline Wolff
Parker Woolworth
Gianna Zapanta



HIMSE'S DAVID MOTZ RECEIVES FIRST SAINT MARTIN'S COMMUNITY AWARD!

On January 29th, **David Motz**, HIMSE Advisor, was notified that he had received the first Saint Martin's Community Award! He's pictured here with his award letter. The award recognizes faculty and staff who exemplify this year's theme of promoting student success.

Quoted from the letter – "Your selection for this monthly award was based on your support of students and faculty, your positive enthusiasm and your tireless efforts to engage others. Your commitment to student success and detailed situational awareness that allows the entire HIMSE team to stay focused and student centric is an important part of our student experience."

Congratulations, Dave, on this well-deserved honor!

HIMSE ATHLETES NAMED TO GNAC ALL-ACADEMIC TEAMS

In order to be eligible for the GNAC All-Academic award, the student-athlete must be in their second year at the institution, and carry a GPA at or above 3.20.

SOFTBALL

Six Saints were named to the GNAC Softball All-Academic team on Wednesday, April 15, 2020. HIMSE's own **Emery Norwood**, a junior mechanical engineering major from Tacoma, Washington, was selected for a second time in her SMU athletic careers and finished with a 3.62 GPA.

Congratulations, Emery! [READ MORE](#)



MEN'S TRACK AND FIELD

Miguel De LaMelena and five of his teammates earned a spot on the GNAC Men's Track and Field All-Academic team on Monday, April 20, 2020.



De LaMelena, a junior mechanical engineering major from Vancouver, Washington, earned his second All-Academic award after posting a 3.56 GPA. Miguel is also the current president of our Alpha Tau Chapter of the Pi Tau Sigma Honor Society for mechanical engineering students!

Congratulations, Miguel! [READ MORE](#)

Also representing HIMSE in as one of the best is **Joshua Schulz**, a senior computer science major from Pe Ell, Washington, with a recorded 3.35 GPA. Josh was also one of the two members of the senior design team that won the 2020 Outstanding Computer Science Capstone Design award!

Congratulations, Josh! [READ MORE](#)



LACEY MAKER SPACE USING TECH FOR GOOD



Boxes of face shields made at Lacey MakerSpace ready for delivery to medical facilities for front-line workers

Lacey MakerSpace, a project of Saint Martin's University, the city of Lacey, and the Thurston Economic Development Council's Center for Business & Innovation, has two 3D printers running 24/7 to make face shields for front-line medical workers, says director **Joseph Anderson**. When the community saw that health care workers weren't getting the protection they need and saw hobbyists across the country stepping up to meet that demand, MakerSpace jumped in.

"We reached out to all the makers we knew and said, 'Who wants to get involved?'" Anderson said. More than 150 people have answered the call — people with sewing machines who can make masks, people with 3D printers who can make face shields, people with scissors who can pitch in.

"All our classes are shut down, the shop is closed," Anderson said. "So we could focus efforts solely on responding to this crisis. That's 100% of our efforts right now."

Lacey MakerSpace and Arbutus Folk School launched a web page this week that serves as a repository of information: request forms if an organization needs personal protective equipment, a volunteer sign-up, a link to [donate funds](#) for materials and tools, and instructions for how to donate materials.

That web page can be found here: <https://laceymakerspace.org/covid-19-updates/thurston-ppe-response/>.

[READ MORE1](#) [READ MORE2](#) [READ MORE3](#)

ASCE SMU STUDENT CHAPTER IS HONORED!

Dr. Jill Walsh received the following letter on April 9, 2020. Congratulations to our ASCE Student Chapter and its officers on the great work they've done resulting in this award!

Dear Prof. Walsh:

It is my pleasure to inform you that the Saint Martin's University ASCE Student Chapter has been selected by the Committee on Student Members to receive a Letter of Honorable Mention for its outstanding activities as recorded in the 2019 Chapter annual report. This is recognition received by only the top third of all Student Organizations.

The Chapter's accomplishments reflect the enthusiasm and hard work of your student officers and members, as well as your fine guidance as faculty advisor. You, the practitioner advisors, and every individual who had a part in this endeavor should be justifiably proud of your contributions to the development of the future of civil engineering.

Best wishes for continued success in your future activities.

Sincerely,

A handwritten signature in cursive script that reads "Leslie Payne".

Leslie Payne, IOM, CAE, Aff.M.ASCE
Director, Educational Activities



FACULTY NOTES – NOTED FACULTY

Dr. Tapas Das attended the 9th ICon International Conference at the end of 2019 in India with the theme of "Sustainable Waste Management towards Circular Economy". According to Dr. Das, it was held on the "beautiful campus of Kalinga Institute of Industrial Technology (KIIT) University, located in the City of Bhubaneswar, State of Odisha, India." Delegates from over 25 countries in Africa, Asia, Europe, and North America participated.

Dr. Das presented a joint paper titled: "Municipal Solid Waste-to-Energy Facility in the City of Spokane, Washington: A Case Study". He also chaired and judged two technical sessions on Water Treatment and Water Reuse.

"I want to thank and acknowledge **Professor Prasant Joshi** at Saint Martin's, who provided me information and insight regarding "circular economy" that I incorporated in my presentation at the conference," said Dr. Das. [READ MORE](#)

Dr. Jae Chung recently attended and presented at the March 2020 ASCE Construction Research Congress held in Tempe, Arizona. His presentation was entitled "Debt/Equity tradeoff models for revenue based DBFOM PPP transportation infrastructure: Case study of I-95 Express Lanes."

According to Dr. Chung, "The ASCE Construction Research Congress (CRC) is the major international conference about the construction engineering and management area, which focuses on an interdisciplinary approach to research and innovation. My presentation was under the Contracting, Project Delivery, and Legal Issues track. [READ MORE](#)



At the end of 2019, **Dr. Shahlaa Al Wakeel** participated in a UC Boulder Alumni Network event held in Seattle. In addition to networking with former colleagues, Dr. Al Wakeel had the opportunity to enjoy a presentation by **Dr. Brian Argrow**, Chair/Professor of the Smead Department of Aerospace Engineering Sciences at the University of Colorado-Boulder. Dr. Argrow discussed the exciting field work his team completed last summer with unmanned aircraft systems intercepting supercell storms. It was a productive and fun time for all participants!

Dr. Shahlaa Al Wakeel (2nd row, far left) with other attending members of the UC Boulder Alumni Network



Congratulations to **Dr. Tapas Das** on the 2020 publication of his textbook, **Industrial Environmental Management: Engineering, Science, and Policy!** This textbook was written for junior- and senior-level students in multidisciplinary engineering fields. He was inspired to write this when asked to teach an industrial environmental management course for senior engineering students at the University of Wisconsin. He found out that there wasn't a single textbook available to cover the depth and breadth of that subject matter. According to Dr. Das, "That alone motivated me to write this textbook, started in 2017 after I returned in Lacey." [READ MORE](#)

Dr. Corrie Walton-Macaulay attended the Educate the Educators 2019 Workshop in San Diego last December. The workshop was sponsored by the North America Section of the International Geosynthetic Society. According to Dr. Walton-Macaulay, "Undergraduate Civil Engineering students across the nation generally graduate without receiving some basic exposure to geosynthetics. This workshop supplied me as an educator with the necessary knowledge and tools to help me integrate geosynthetic topics into Saint Martin's engineering curricula." Due to this, he was able to integrate a module of geosynthetic in the Pavement Design course he's teaching this semester! [READ MORE](#)



Dr. Shahla Al Wakeel attended the 44th International Conference and Exposition on Advanced Ceramics and Composites, organized by the ACerS Engineering Ceramics Division, held January 26-31 in Daytona Beach, Florida. The organizing division works to stimulate interest in the development and utilization of technology that falls within the broad category termed engineering ceramics. This conference welcomed 1,003 attendees, including 299 students, from 37 countries and also featured an inaugural 'Women in Ceramics Lunch', bringing together about 45 women for lunch and discussion with a panel of five distinguished women from the field. [READ MORE](#)

OUR ALUMNI

Alumni Achievements

Tyler Sloan, BSCE '19, sent this note to HIMSE Civil Engineering faculty recently. Thanks for reaching out, Tyler! We love to hear from our alumni and hope your enthusiastic report spurs more alumni to send us their success stories!

"I am reaching out to share a video of the project (see link at end of article) I started on immediately after graduating in May 2019. Link to a brief summary of the project: <https://www.atkn.com/our-work/east-link-extension-%E2%80%93-e335>

Prior to joining the project management team, I was warned that this has been a challenging project thusfar between the General Contractor (Stacy Witbeck / Atkinson, A Joint Venture) and the Sound Transit Construction Management team (HDR, Sound Transit, HNTB, HJH, LTK Architects).

Upon arriving to the project and introducing myself during my first attendance at our daily coordination meetings, I expressed my excitement to dive into the project and mentioned that I had just graduated from Saint Martin's University with a B.S. in Civil Engineering. I was received by an awkward silence that filled the room because I could tell not one soul was familiar with the school name. I followed up by saying, "It is a small private university in Lacey, WA and has a great engineering program". I was met with head nods and sighs of acknowledgement, but knew almost everyone in the room still had no clue what or where I was talking about. I quickly realized, I am the **ONLY** engineer on this project that did not attend University of Washington (UW), Washington State University (WSU), or Oregon State University (OSU). I would be a liar if I said I wasn't slightly intimidated.

I am a field engineer with the Stations crew and jumped onto the project after it had been underway for roughly 2 years. There was a lot of history to catch up on. After 2 months of digging into the plans, specification, and balancing other daily engineering responsibilities; I felt confident to start using my engineering skills and knowledge appropriately to establish myself as an asset to the team. There are 4 stations on the E335 alignment that 6 field engineers (including myself) coordinate and manage the daily construction. This includes preparing all submittals, RFI's, schedule (4-week and 90-day), managing subcontractors, reviewing shop drawings/specification, performing quality control, coordinating various trades and scopes of work to maintain budget and schedule. The field engineers are also responsible for tracking labor and productivity, approving time cards, and forecasting budget.

I am the sole Field Engineer responsible for everything that happens at the elevated Wilburton Station. I have been performing as-built surveys on elevated concrete structures and identifying design conflicts in the contract plans. Reviewing and building not only structural concrete walls and slabs; but also electrical, plumbing, HVAC, fire suppression, and elaborate finishes. Scheduling and coordinating concrete pours, sequence of construction, and city inspections.... The list goes on. As I have grown and learned from these experiences, I can give direct credit to the Hal and Inge Marcus School of Engineering for properly preparing me. I reflect daily on the courses that provided the foundation for me to understand engineering judgement and reasoning. I have successfully challenged Sound Transit design engineers, the Construction Manager consultants, and city building officials (City of Bellevue), while referencing all corresponding standards, specifications, and codes to work through conflicts. The importance of standards and ethical engineering was something that I think Saint Martin's drives home.

It has been clear to me that although I was initially intimidated by the magnitude of the project at hand, all of my engineering education mentors have more than prepared me to feel confident in my knowledge of engineering and construction.

I know this has been a bit of a soap box... the point I am trying to make is that I am extremely proud of having gained my Civil Engineering education at Saint Martin's University and grateful to have crossed paths with and learned from the awesome faculty and staff at the Hal and Inge Marcus School of Engineering.

Here is an unlisted video that another field engineer on the Stations crew and myself put together for an upcoming annual meeting with Stacy and Witbeck: <https://youtu.be/ikFFVkjSuNM>

I hope all of you are doing well!

Best,

Tyler Sloan | Stations Field Engineer

East Link Extension E335

Stacy Witbeck / Atkinson

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

CALENDAR AND EVENTS

- ❖ May 4-7 Final Exam Week (Good luck to our students!)
- ❖ May 8 (F) 11A-12P (virtual event) MSSA Graduation
12-1230P (virtual event)
Pledge of Computing Professional
1-130P (virtual event)
Order of the Engineer Ring Ceremony
- ❖ May 9 (Sa) Last day of Spring 2020 semester
- ❖ May 18 (M) First day of Summer 2020 (00/01) term
- ❖ May 25 (M) Memorial Day Holiday
- ❖ May 26 (Tu) Add/drop (Summer 00/01)/attendance accounting deadline





DEAN'S CORNER

The publication of the newsletter was delayed this spring as we dealt with the adjustments required by social distancing. I am grateful to **Tam Léger** for creating and publishing this edition.

The COVID crisis blossomed during our spring break, and we decided then that we would move instruction fully online the second half of the semester. I want to share with you that the faculty has been magnificent in adapting to this crisis. They have adjusted their delivery and embraced the new technologies. This is particularly noteworthy, as some of the faculty (and students!) with young children were also adapting to the closure of the local schools and day care facilities. They have continued to provide excellent instruction to our students.

Our students have been superb as well. They, too, have adapted, and shown grace as we moved to the new instructional models. I have heard no complaints from students – they all understand. In many ways, I think our students feel closer to our faculty as they have watched the faculty work so hard to continue to teach them.

I want to recognize the Engineering Advisory Board for their flexibility in hosting our senior capstone design reviews. This is important feedback to students, and a highlight of senior year. We did that virtually, and it worked well!

We are very sensitive that our usual celebrations for graduating seniors have to change. We will do virtual ceremonies in some cases, and others will be delayed until the fall. The university has announced commencement exercises for the 2020 graduating class will be delayed until Labor Day weekend. We will offer students early May virtual ceremonies for Order of the Engineer and the Pledge of the Computing Professional, and plan to hopefully repeat with live ceremonies around Labor Day. We will hold a virtual celebration for our three graduating MSSA cohorts on 8 May.

I want to emphasize that the Hal and Inge Marcus School of Engineering (and Computer Science) is open and will remain open. We are actively recruiting students for the fall, and, regardless, if we are online or on campus, we will continue our mission of educating students in the Benedictine tradition this fall. Additionally, our fall enrollments are looking promising at this point.

There is one area where our wider community of Saints can continue to help. We expect that some graduating students will experience challenges finding jobs this summer. We also expect returning students to find fewer internships. Many families are in financial crisis and will find it difficult to make their expected contributions to pay for schooling.

If you can help with an extra internship, or know of a good job for an engineering, CS, or IT graduate, please let me and our director of career services **Ann Adams** (aadams@stmartin.edu) know. We are also running a drive to help provide emergency funds to students in need, both in engineering and across campus. Our website is <https://www.stmartin.edu/make-gift/ways-give/give-smu> and you can state your intentions for your gift in the “Special Instructions.”

Crises allow great teams to show their mettle. Our great team of faculty and staff, and our wonderful students, are showing their mettle this spring. I hope you feel the same sense of pride in them that I do.

Best wishes,

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

*Copyright © 2020 Saint Martin's University:
Created by Tam Léger, Executive Assistant
The Hal and Inge Marcus School of Engineering*

To unsubscribe from this list or to update your contact information, please email engineering@stmartin.edu