



2019  
-  
2020  
*ANNUAL REPORT*  
**YEAR OF  
GIANT LEAPS**



**PURDUE  
UNIVERSITY®**

Office of Professional Practice

# FROM THE DIRECTOR

ERIC A. NAUMAN | DIRECTOR, OFFICE OF PROFESSIONAL PRACTICE



Greetings from the Office of Professional Practice (OPP)!

I would like to start by thanking all of our corporate and academic partners for their support in these challenging times and, as always, our alumni continue to provide encouragement and help sustain our efforts all around the world. The 2019-2020 academic year was not at all what we expected, but our students continue to demonstrate their grit and work ethic.

The OPP mission, to promote experiential education within the academic environment of the institution continues to be important to students, faculty, and our corporate partners and we are deeply appreciative of all our stakeholders. We continue to build our MILESTONES program and have pioneered a number of methods to provide students with hands-on experiences – even at a distance. It has been a considerable amount of effort, but this experience has offered our office opportunities for growth in how we collaborate and use technology. From an educational perspective, our goal is to ensure that Purdue students are able to accomplish as much as possible during their work rotations and expand their skill sets while on campus.

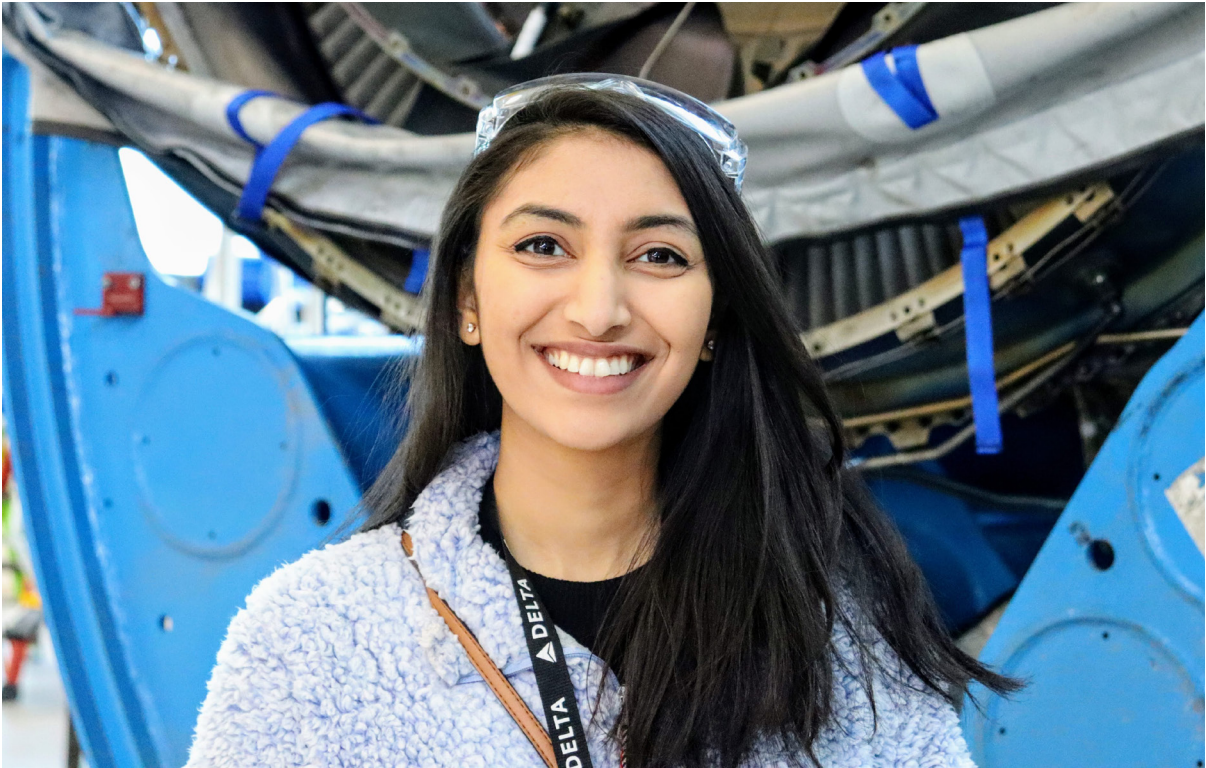
Thank you for your interest in the Office of Professional Practice and all of Purdue's Professional Practice Programs. I hope you enjoy this edition of our annual report and all the effort and success it reflects.

Eric A. Nauman,

Director, Office of Professional Practice  
Professor of Mechanical Engineering, Biomedical Engineering, and Basic Medical Sciences

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# OUR PROGRAMS

## COOPERATIVE EDUCATION

The Purdue Co-op program has been the premiere work experience program at Purdue University for over 60 years. Students participating in the program receive an academic certificate upon graduation. Students participating in co-op enhance their academic knowledge with practical skills through progressively challenging work experiences with industry partners. Purdue's traditional 3 and 5 session co-op model for undergraduate students result in 12-20 months of work experience with a single employer.

Co-Op provides students with an in-depth knowledge of a company. 80% of co-op students earn a full-time offer with their co-op company prior to graduation. Undergraduate students may also pursue the Parallel Co-op model, which allows for full-time work in the summer and part-time work and study during the academic semester with a local company. Another option is Flex-Co-op, which allows students to obtain multiple work rotations with two different employers. Students pursuing their Master's degree, may participate in the Master's co-op program, which allows students to complete a 6 to 12-month work rotation at an employer prior to completion of their degree.



# #11

Co-Op  
Program  
in the US

U.S. News & World  
Reports,  
2020

## MILESTONES

The MILESTONES Program was conceived in 2019 to provide technical experiences to supplement and enhance knowledge gained in the classroom. MILESTONES modules average 15 hours of hands-on education in a particular technical field. The modules are currently offered for free to Purdue students. Students successfully completing a MILESTONES module will earn a certificate. OPP offered its first set of modules during the 2019/2020 academic year. MILESTONES modules included CAD/3D Printing, Finite Element Analysis and Fabricating Composites, under the Prototyping and Manufacturing Family and Arduino Programming, Introduction to Electronics, Biomedical Instrumentation, and an electronics capstone project on Designing a Smartwatch under the Electronics and App Development Family. The MILESTONES program aims to enhance the technical abilities of Purdue students while providing industry with co-ops and interns ready to make an impact on day one.



## GLOBAL ENGINEERING ALLIANCE FOR RESEARCH AND EDUCATION (GEARE)

GEARE is Purdue's premiere global professional training program. The program is currently available to students from all engineering disciplines and computer science. GEARE students enhance their global competency by completing language study, one semester of study abroad, a minimum of one domestic internship, a minimum of one global internship, three one-semester cultural training seminars, and a minimum of one global design team project.

The Office of Professional Practice develops relationships with world-renowned university partners and global industry partners interested in developing future employees with top of the line technical and global skills. The Office of Professional Practice has strong partnerships with universities and global employers operating in the U.S., China, Colombia, France, Germany, Mexico, Singapore, and Spain. New programs are being established in Brazil, Ecuador, India, Italy, Japan, South Korea, and Sweden. GEARE utilizes the Intercultural Development Inventory (IDI) and a series of a courses to help students maximize their growth in global competency. Research conducted by Purdue's Center for Intercultural Learning, Mentorship, Assessment, and Research (CILMAR) finds GEARE to be one of the most effective programs in the U.S. in encouraging global competency development amongst its participants.

## INTERNS FOR INDIANA (IFI)

The Interns for Indiana program connects entrepreneurially-minded Purdue University students to Indiana startup and second-stage companies in order to promote economic development, enhance student success, and provide professional opportunities to high performing students. Students will complete their internship during the summer. The Office of Professional Practice offers a scholarship to students to supplement their pay since startups usually offer a lower hourly wage.



# 2019 PROFESSIONAL PRACTICE HALL OF FAME



Launched in 2010, the Professional Practice Hall of Fame, formerly the Cooperative Education Hall of Fame, is an annual celebration honoring academic leaders who have made significant contributions to Purdue's Co-Op program or those alumni who have achieved excellence in their careers after participating in cooperative education during their time at Purdue. In essence, this event provides a lens through which current and future students can view the power of Co-Op. Previous inductees have included executives, politicians, lawyers, high-ranking technical experts and Purdue faculty with a passion for experiential learning. The 2019 class of inductees, as featured, were no exception to these high standards set before them.

This year's Hall of Fame was held on September 13, 2019 at the Purdue Memorial Union. The event featured opening remarks from Director of OPP Eric Nauman, special remarks from Eckhard Groll, the William E. and Florence E. Perry Head of Mechanical Engineering and former OPP Director, an update from Professional Practice Ambassadors' President Katie Dudek, and a formal induction ceremony.



**JIM RAU** has over 50 years in the Automotive Business with TRW Inc. This includes varied Business Units and Consultation Advisory roles with ZF-TRW, now ZF. He started his career as a Co-Op Student with International Harvester Motor Truck Div. in 1965. He moved on to Ross Gear Div. TRW in 1969. He is currently Executive Advisor to ZF; operating from his consulting company JLRau&Associates LLC. Jim has participated in many TRW New Business Development Plans; Start-Ups, and Joint Ventures around the Globe. He chaired TRW Inc. Technical Board for 2 years as an Honorarium CTO. Now retired from TRW, Jim remains involved in the growth of the Automotive Industry with ZF. Jim supports Purdue's School of Mechanical Engineering, Cooperative Education Program, and Student Athletics Scholarship Programs at Purdue University



**CARL MARGRAF** received his Bachelor's degree in Chemical Engineering from Purdue University. Since continuing with his work at Proctor and Gamble, he has worked at the global headquarters located in Cincinnati, Ohio as well as globally in the Frankfurt Germany area. For the first 13 years of his career, Carl worked in the Beauty Care department – specifically on hair care and color products that are used by consumers all around the world. For the last 5 years, he has been working in Proctor and Gamble Ventures which is a start-up group within the broader enterprise. Margraf has been the co-inventor on four patents – two of which are pending. He has successfully launched a number of products into the market that has resulted in over \$1 billion in sales. He is also a co-founder of the MetaDerm brand. He continues to be involved with the Co-Op program by being the lead Research and Development Co-Op recruiter for Proctor and Gamble as well as being a frequent speaker in a few of the seminars in the School of Chemical Engineering.



**PETER TORTORICI** has been employed with Medtronic, the world's largest medical device company, for more than 18 years. Since 2016, he has served both as the Senior Engineering Technology Manager in Advance Manufacturing Engineering and as the Technology Collaboration Leader. He is currently leading a group developing manufacturing technologies for cardiac and neurological implantable medical devices. In light of his outstanding career, Dr. Tortorici has received multiple recognitions from Medtronic as he was awarded the 2011 Medtronic Star of Excellence, named 2014 Medtronic Tempe Campus Technical Guild, and 2017 Medtronic Technical Fellow. Peter has published eight papers in highly regarded professional journals and has been awarded two patents.



**STEVE WANDERS** served as the Associate Director for Cooperative Education in the Office of Professional Practice at Purdue University. Prior to joining Purdue University, Steve was employed for 35 years by CH2M, Inc. With CH2M Inc., Steve served in many roles including project structural engineer and project manager, and later in senior leadership roles in staff development, operations, and business development in the Civil Infrastructure Division. In his last position with CH2M, Inc., he was Vice President, Geographic Manager, of the Midwest Transportation Group. For the majority of his career with CH2M, Inc., Steve served as its Ambassador to Purdue University. He recruited engineering students from Purdue and initiated the Co-Op program with Purdue in 1988 for CH2M, Inc.. Steve has also received the Bravo Award in Operational Excellence from Purdue's College of Engineering in 2017 and the Civil Engineering Alumni Achievement Award from Purdue University in 2002-2003.

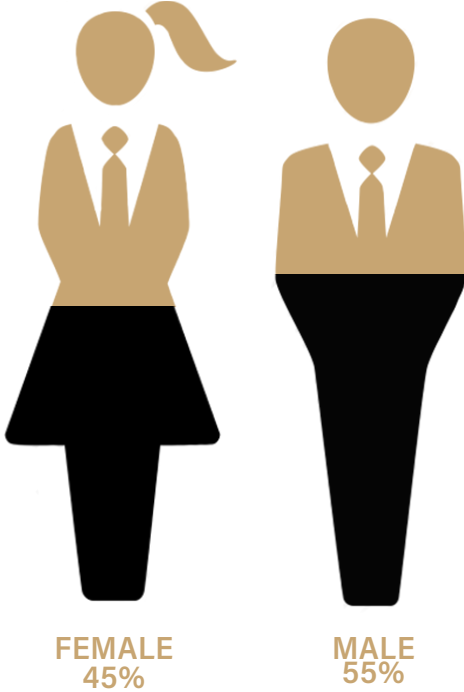




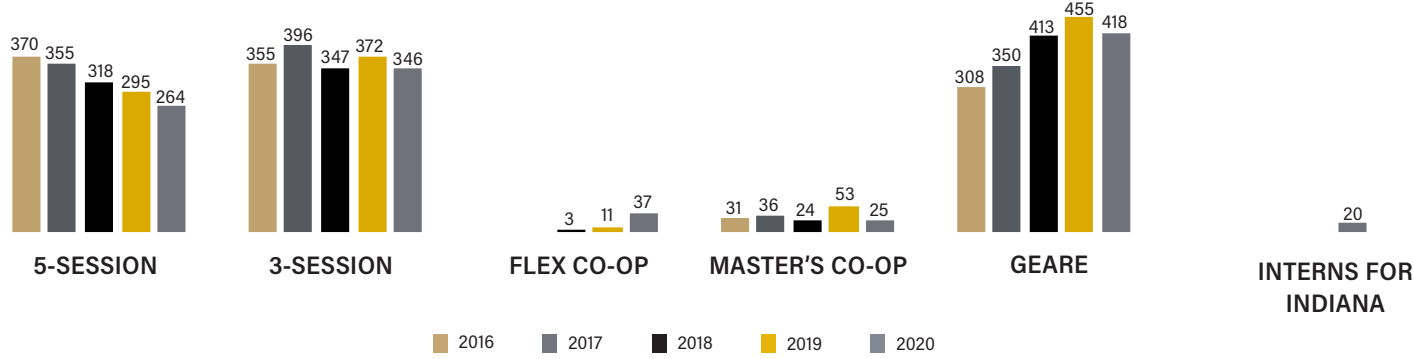
TOTAL PROFESSIONAL PRACTICE STUDENT ENROLLMENT  
(INCLUDES INTERNSHIPS THAT REQUIRE REGISTRATION AND ARE ADMINISTERED BY OPP)



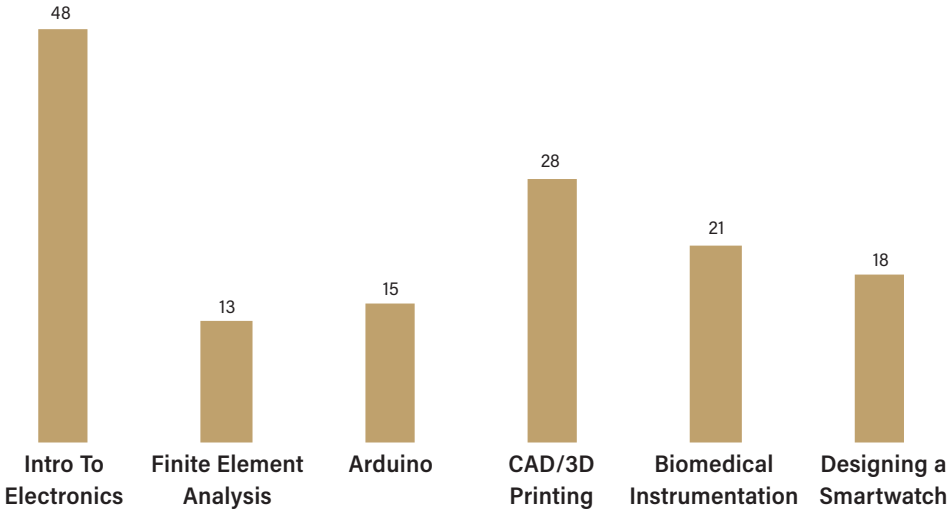
PROFESSIONAL PRACTICE STUDENT RESIDENCY  
2019-2020 ACADEMIC YEAR



ACTIVE STUDENTS BY PROGRAM



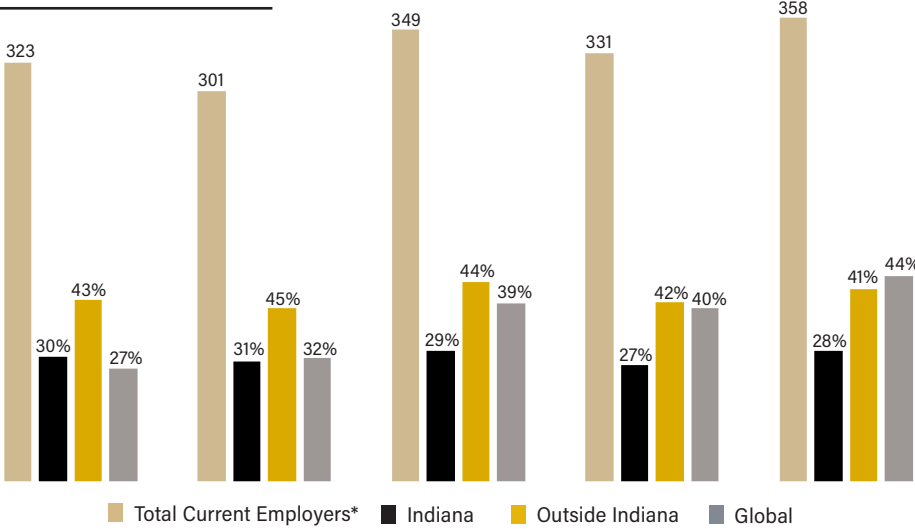
MILESTONES CERTIFICATES



TOTAL CERTIFICATES: 143



PROFESSIONAL PRACTICE EMPLOYERS PROVIDING OPPORTUNITIES BY LOCATION



\*Current = Employer has recruited and/or hired within the last 5 years



# Kiley Rodgers' *GIANT LEAP*

Kiley completed a 5-session co-op with Vantage Oleochemicals rotating between technical service, process engineering, production engineering, and marketing in Chicago, Illinois.

Kiley worked in a lab setting, analyzing the factors effecting key parameters in Vantage products to meet quality specifications. She also operated and monitored two different pilot units and conducted cost analyses for feasibility of implementation. She conducted day-to-day tasks like updating procedures and LOTO forms, writing up modifications for the different units in the plant, and performing safety reports and audits.



“My favorite part about the co-op program is gaining almost 2 years of work-force experience before even graduating.”

“Not only does it give you a break from school and a chance to make money, but you get to rotate between different areas and figure out what you like and dislike before you have to make that career decision upon graduating. By staying within the same company, you gain more trust, more responsibility, and you can show up to your next sessions more comfortable with the people, the plant, and your tasks.

I've grown a lot from the co-op program. It took a lot of maturing being a freshman, moving to a large city like Chicago alone, and starting a new job not knowing anyone. I learned how to build relationships with many different kinds of people and gained friendships that I will have for life. I've gained a lot of confidence at Vantage - confidence in my ability as a chemical engineer, as a presenter, and as a woman in the male-dominated field.”





## STUDY ABROAD AND 2 INTERNATIONAL WORK ROTATIONS

THAT'S TAKAYUKI MIYAUCHI'S

# GIANT LEAP



Takayuki made his giant leap while he was at Purdue by taking part of the GEARE program. This allowed him to complete two international work rotations, a 13 month internship at Airbus UK and Airbus Germany and a 3 month summer research internship at TU Braunschweig, along with a 6 month study abroad at the University of Bristol.

During his summer at TU Braunschweig, he worked in the area of Computational Fluid Dynamics (CFD) and developed a further understanding of fluid mechanics/aerodynamics.

While at Airbus, he worked in the Future Projects department where he gained experience in overall aircraft preliminary wing design and worked on a data analytics project using aircraft sensor data to improve future Airbus commercial aircraft. He also worked on cabin and fuselage configurations for future Airbus products. This allowed him to develop a better understanding of how the early phase fuselage development process works and propose potential actionable steps by identifying the root cause of the problem.

**“Professionally, I understood some of the key skills I need to work on to be successful at whatever I do in the future, especially in a global environment. Personally, I became more self-aware of my strengths and weaknesses and learned many things that helped me develop as a person.”**



# CORPORATE SPONSORSHIP

Purdue University has a long and distinguished history of partnering with industrial and governmental organizations to provide undergraduate students with practical training to enhance their educational experiences. One aspect of these partnerships is Corporate Sponsorship. The Office of Professional Practice relies on our corporate sponsors to provide the best experience to all students participating in the Professional Practice Programs. We are very grateful for corporate gifts received for the 2018-2019 academic year and would like to share with you how these gifts have been utilized.

When determining the best use of corporate gifts, we reflect on our department Mission Statement (below) and the aspect of enhanced employer engagement. The generosity of our corporate partners greatly impacts many students' ability to participate in our programs and enables OPP to provide exceptional service to both students and employers.

### OPP MISSION STATEMENT

To facilitate the experiential education and professional practice of Purdue University students within the academic environments of the institution and its global partners; to participate in academic research within the field of Professional Practice and to assist the academic units with *enhanced employer engagement*.



### USAGE OF CORPORATE GIFTS 2019 - 2020 ACADEMIC YEAR

#### Employer Related Workshops and Events

- Co-op Employer Networking Night
- GEARE Industry Networking Night
- Co-Op Opportunities for Freshman Event
- Co-Op and GEARE students callouts and information sessions
- Resume review sessions
- Interview skills workshop
- Negotiating Co-Op offers workshop

#### Technology Improvements

- Support for Simplicity database to aid with student/employer connections
- Purchasing of video equipment to develop video content aiding in the promotion of professional practice programs

#### Engagement Opportunities

- Travel to engage with co-op employers and students while on site to improve and expand opportunities for both students and employers

#### Student Scholarships

Travel grants for GEARE students participating in low paid or unpaid internships abroad

Scholarships for high achieving co-op students

#### Student Groups

Funding to Professional Practice Ambassadors and GEARE Ambassadors student groups for professional development opportunities and social events

#### Future

Development of new programs to enhance student skills via professional work experience or education. In 2019-2020, the Milestones program started providing students with technical skills workshops. Corporate gifts were used to purchase materials utilized in the classroom

# PROFESSIONAL PRACTICE PARTNERS PROGRAM

### SPONSORSHIP BENEFITS

|  | BLACK<br>LEVEL<br>\$2,500 | GOLD<br>LEVEL<br>\$5,000 | PLATINUM<br>LEVEL<br>\$10,000 |
|--|---------------------------|--------------------------|-------------------------------|
| 1 Advertising on LCD screens located in Potter Engineering Center  | ★                         | ★                        | ★                             |
| 2 Logo placement on the OPP Website and at conferences and events with OPP representation  | ★                         | ★                        | ★                             |
| 3 Invitations to participate in Professional Practice and GEARE Industrial Advisory Committee Meetings and Employer Seminars   | ★                         | ★                        | ★                             |
| 4 Invitation to promote brand awareness (Speaking at Opportunities for Freshmen Event, ENGR 103 Classroom Visit, Program Callouts)   | ★                         | ★                        | ★                             |
| 5 Preferred placement at events sponsored by the Office of Professional Practice   | ★                         | ★                        | ★                             |
| 6 Registration for 2 free tables to be utilized during Professional Practice Career Fair and/or PPD Interview event  | ★                         | ★                        | ★                             |
| 7 Guaranteed invitation to attend Annual Networking event with Co-op Students  | ★                         | ★                        | ★                             |
| 8 Annual Networking event with GEARE students  | ★                         | ★                        | ★                             |
| 9 Employer-sponsored seminar or workshop to be coordinated on campus or via video conference any time of year. OPP will assist in arranging space or technology and will invite students |                           | ★                        | ★                             |
| 10 Registration for 2 additional free tables (4 total) to be utilized during the Professional Practice Career Fair and/or PPD Interview event  |                           | ★                        | ★                             |
| 11 Access to resume booklets for graduating Co-Op and GEARE students   |                           | ★                        | ★                             |
| 12 Registration for unlimited free tables during Professional Practice Career Fair and PPD Interview event   |                           |                          | ★                             |
| 13 Full day campus branding event. OPP will assist in arranging space or technology and will invite students   |                           |                          | ★                             |
| 14 Enhanced company branding on campus (feature video)   |                           |                          | ★                             |
| 15 Involvement within the Professional Practice Milestones Program   |                           |                          | ★                             |



# PROFESSIONAL PRACTICE PARTNERS



**Gulfstream** produces the world's most advanced business aircraft, with innovations from nose to tail and wingtip to wingtip, all while offering unmatched global product support and service.

**Eli Lilly** is a prominent pharmaceutical company with headquarters in Indianapolis, Indiana. They have been apart of many milestones in medical history such as being one of the first companies to mass produce the polio vaccine.

**ZF Group** is a global technology company that supplies systems for passenger cars, commercial vehicles and industrial technology. With its broad portfolio, the company offers integrated solutions for established vehicle manufacturers, mobility providers and start-up companies in the fields of transportation and mobility.

**Air Products** - With approximately 16,000 employees and operations in 50 countries, Air Products serves customers across a wide range of industries, from food and beverage to medical, energy and transportation. They also supply a unique portfolio of atmospheric and process gases, equipment, and service.

**GE Aviation** is a world-leading provider of business, military, and commercial jet engines, components and integrated systems for commercial and military aircraft. GE Aviation has a global service network to support these offerings.

**General Motors** - From electric cars to heavy-duty full-size trucks, General Motors provides a complete range of vehicles that meets the needs and expectations of drivers on a truly global scale. GM is the only company with a fully integrated solution to produce self-driving vehicles at scale and are committed to an all-electric future.

**Exxon Mobil** operates in most of the world's countries and is best known by their familiar brand names: Exxon, Esso, ExxonMobil and Mobil. They make the products that drive modern transportation, power cities, lubricate industry, and provide petrochemical building blocks that lead to thousands of consumer goods.

**GE Appliances** designs and builds the world's best appliances. From design to production to service, their goal is to help people improve their lives at home.

**Ed Miniat** produces custom-formulated, sous vide-cooked beef, pork, chicken, and turkey for global food brands and national restaurant chains. Award-winning chefs, meat scientists, and experienced sales team will partner with you to find the ideal solution for your needs.

**Meritor** is a leading global supplier of drivetrain, mobility, braking and aftermarket solutions for commercial vehicle and industrial markets. They produce parts for military suppliers, trucks and trailers.

**CEC Controls** specializes in the design, build and startup of industrial and process controls systems. CEC Controls also provides maintenance-monitoring systems fully equipped with fault alarms and production report generation capabilities.

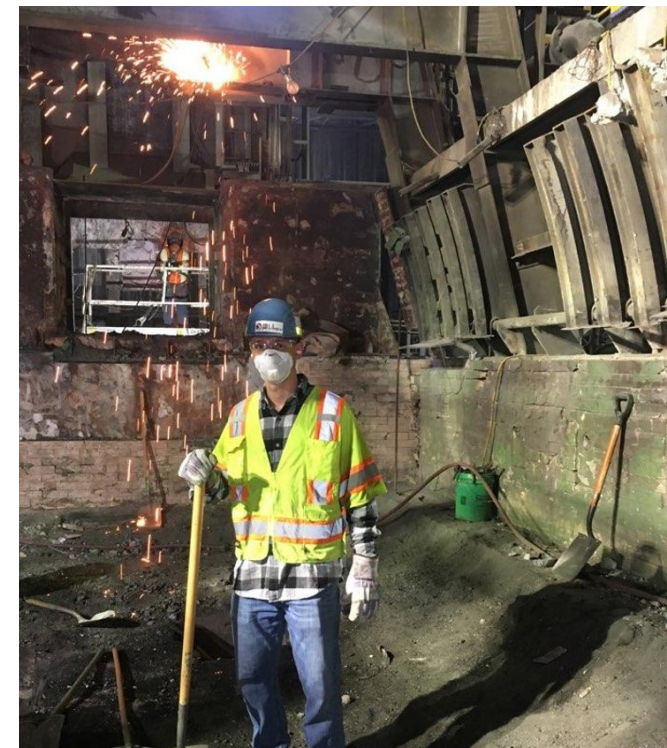
**Cummins Inc.** designs, manufactures, sells and services diesel and alternative fuel engines from 2.8 to 95 liters, diesel and alternative-fueled electrical generator sets from 2.5 to 3,500 kW, as well as related components and technology.

**Kimberly-Clark** has some of the most recognized brands in the world. Their brands hold the No. 1 or No. 2 shared position in 80 countries, and have five billion-dollar brands: Huggies, Scott, Kleenex, Cottonelle and Kotex. Additionally, they use sustainable practices to support a healthy planet and build stronger communities.

**Sabic**, headquartered in Riyadh, Saudi Arabia, manufactures on a global scale in the Americas, Europe, Middle East and Asia Pacific, making distinctly different kinds of products — polymers, chemicals, commodity and high performance plastics, agri-nutrients, and metals.

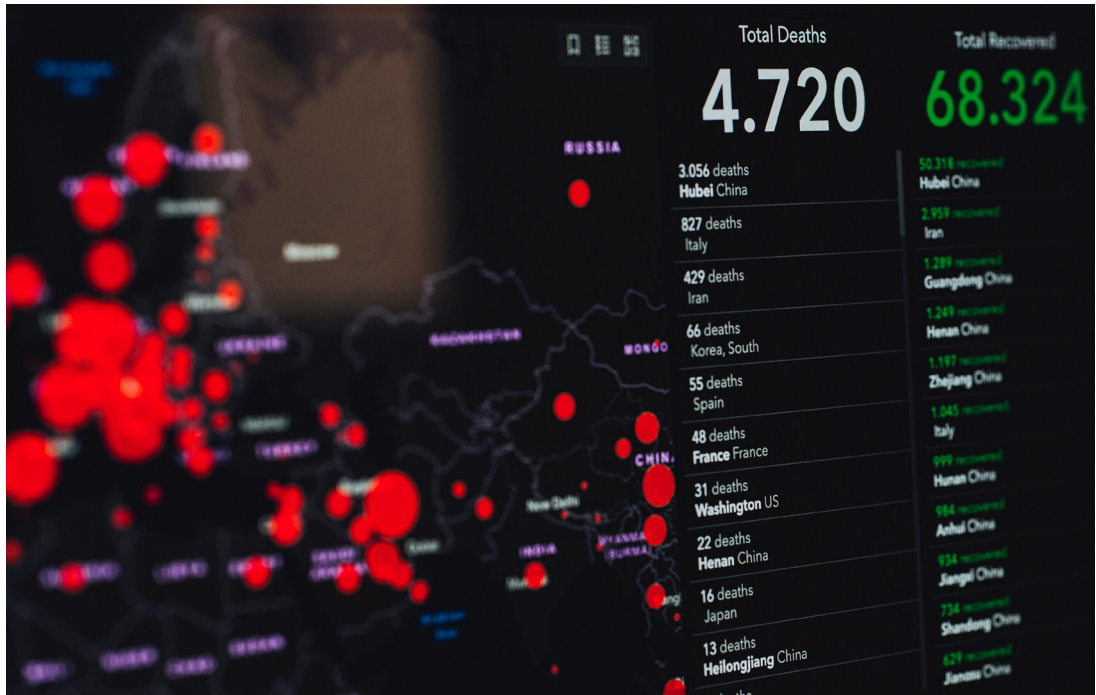
**Endress + Hauser** is a global leader in measurement instrumentation, services and solutions for industrial process engineering.

**Carrier** is a world leader in high-technology heating, air- conditioning and re Fridgeration solutions. With more than 100 years of proven innovation, they have shown how they can solve problems on a global level and help drive new industries.





# The Office of Professional Practice's Response to *CORONAVIRUS*



The outbreak of the COVID 19 Global Pandemic drastically changed the lives of most citizens around the world. The sudden and rapid spread of the virus required governments, healthcare facilities, educational institutions, and industry to move quickly to develop policies to socially distance and implement actions to limit the spread of COVID 19. In facilitating experiential learning opportunities, the Office of Professional Practice was required to adapt policies and act quickly to ensure the health and safety of student participants.

In March of 2020, hundreds of Purdue students were active in co-op placements across the U.S. Government restrictions shut down physical operations for several industry partners. In some cases, students were able to complete their co-op rotations remotely. In other instances, students were unable to finish their rotations as intended. The OPP quickly convened its Professional Practice Academic Advisory Committee, and developed policies allowing students to obtain credit for work rotations that fell short of the minimum number of weeks required.

Students planning to complete co-op work rotations during the summer of 2020 also faced hurdles. Health and economic consequences of COVID 19 resulted in the cancellation of several opportunities. Initial findings show a 40% reduction in co-op placement compared to summer 2019. To aid students who lost opportunities, OPP helped students connect with summer engineering projects organized by the Schools of Mechanical and Industrial Engineering, and provided financial support for the projects. For students offered co-op positions, the OPP aided in the development of policies enabling students to complete in-person work sessions when necessary.

In relation to its global program, GEARE, OPP faced even greater challenges. In March 2020, 80 GEARE students were either studying or completing internships abroad in Europe, Asia, Latin America, and Oceania. Global responses to the Pandemic were varied and put into action swiftly. Ultimately, Purdue required all of its students to return home. The OPP coordinated with several university departments, communicated with students, and aided in their safe return. The OPP extended financial support to students when necessary. It also helped to coordinate the completion of study abroad terms and internships remotely.

## *MILESTONES DURING THE PANDEMIC*

Due to COVID 19, the MILESTONES Program, a program requiring hands-on experience with tools and equipment, was forced to transition to an online learning format. Module instructors rapidly created simulations and videos while utilizing business communication platforms for bidirectional, synchronous, and asynchronous exchanges with students. With support from our OPP sponsors, kits with the necessary components were sent to students homes allowing students to follow videos and online instruction to construct real projects with the appropriate materials. Learning how to offer this hands-on experience in an online setting will allow OPP to diversify MILESTONES offerings and increase future student participation.





## The Office of Professional Practice's Response to

# CORONAVIRUS

### PURDUE - PAN AMERICAN HEALTH ORGANIZATION PARTNERSHIP



On December 3rd, Dr. Dan Hirleman (Chief Corporate and Global Partnerships Officer) along with Dr. Eric Nauman, (Director of the Office of Professional Practice) visited the Headquarters for the Pan-American Health Organization (PAHO) to participate in the signing ceremony of an MoU between PAHO and Purdue University. PAHO is a unit of the World Health Organization (WHO) within the United Nations System. The MOU establishes a relationship allowing Purdue University students to complete internships at PAHO headquarters in Washington D.C. and provides the opportunity to establish relationships with other units within WHO. Additionally, Purdue will work to expand internship opportunities with PAHO projects operating in 27 countries throughout North, Central, and South America. These organizations offer engineering students the opportunity to obtain meaningful interdisciplinary experiences through participation in research and development projects. Purdue faculty will have the opportunity to collaborate, advise and participate in PAHO projects. The relationship was established via Purdue's Office of Professional Practice and the GEARE program. It marks the first relationship allowing students to conduct practical training with an organization associated with the United Nations.

Thanks to the relationship established with PAHO/WHO Purdue faculty and students continue working along their organization on projects aimed to improve the region's response and prevention of Covid-19 and other challenges associated with the pandemic such as:

SARS-VOC-2 wastewater measurements to improve surveillance.

The association between meteorology and the epidemiology of COVID-19 as a forecasting (prediction) tool.

Analysis of social media and other sources of information (big data analysis) to better understand if and to what extent the populations are following or not the public health recommendations (e.g., use of masks, hand washing, etc.).

### GLOBAL DESIGN PROJECTS DURING THE PANDEMIC

Students forced to return from their GEARE global experience were eager to continue developing their global engineering competence and make progress toward their Global Engineering Minor. The OPP connected with several of its global partners to develop remote projects with international students and faculty. This outreach yielded opportunities for 25 of the returned students during the summer of 2020.

Leibnitz University (LUH) in Hannover, Germany offered one of the projects connecting several of their own students with Purdue GEARE students from five different engineering disciplines. LUH's International Design Project (IDP) is to develop device-solutions aimed to alleviate a grand challenge in the developing world. Garrett Fehrman (ME-GEARE Junior 2020) shared some feedback about the course:

"Professor Tidy (LUH's IDP lead instructor) has been incredibly nice and helpful with the lectures so far. We have plenty of time to do the homework as he uploads YouTube videos. We have a week or more to watch and complete the associated work. The overall scope of the project is exciting as we are attempting to design useful projects from easily available resources in undeveloped countries."

Other partners providing remote global projects and internships include:

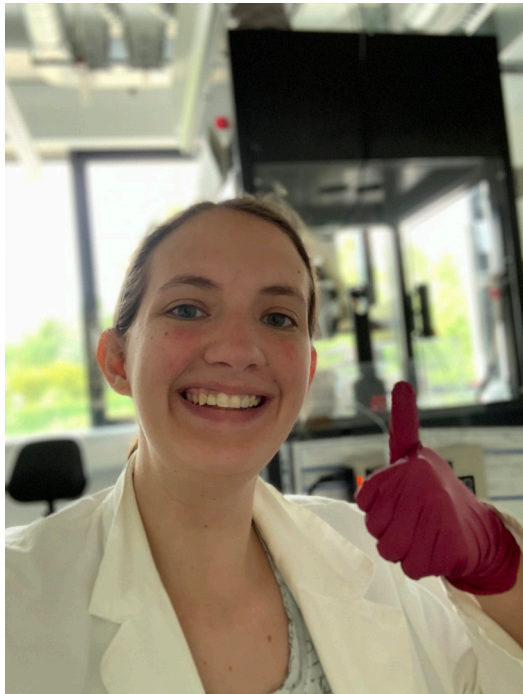
- Universidad San Francisco (Quito, Ecuador): Design of an insulin pump for a low-cost application
- KIT (Karlsruhe, Germany): Development of a new powertrain generation for an agricultural tractor
- Pan-American Health Organization (Santo Domingo, Dominican Republic) Water quality and Covid-19 surveillance
- Aviatec LLC (Lima, Peru): Design and fabrication of low-cost respirator components



# STUDENT SUCCESSES

Fulbright Scholar

## GLYNN GALLAWAY



Glynn is a Spring graduate earning a bachelor's degree in mechanical engineering. Recently, she received a Fulbright U.S. Student Program offer for the 2020-21 academic year and will work in Germany at the Institute of Multiphase Processes (IMP), part of the Hannover Medical School in collaboration with Leibniz Universität Hannover. With the grant, she will conduct tissue engineering research starting January 1, 2021.

She spent the summer of 2019 as a visiting student researcher at Leibniz University Hannover with our GEARE Program. She was part of the first Purdue Mechanical Engineering GEARE cohort to study at Leibniz. That summer she developed tissue-engineered membranes in order to mimic native tissues of the human body.

"GEARE was one of the reasons I came to Purdue because it was a unique opportunity to develop new skills and was the adventure of a lifetime," said Gallaway. "GEARE was an incredibly challenging experience that led to a lot of personal growth. The biggest thing I learned was how to be confident, independent, and flexible in the face of adversity."

"I chose to continue at IMP for my Fulbright grant because of my previous relationship with them and their commitment to global development," she explained. "Fulbright will provide me funding and support for my time in Germany."

## DAIMLER/MIT MERCEDES BENZ EXPERIENCE DAY

Students from the GEARE Program joined Daimler's top execs at the MIT Media Lab while attending the Mercedes-Benz Experience Day. The event included several of Daimler's VP's and CEO's from R&D and innovation incubators from Germany and the U.S. The executives hosted a series of talks on autonomous mobility and industry digitalization. The event attracted over two hundred students from Universities in the Northeast (mainly MIT and Harvard). Purdue was the only university outside the area to participate. More than twenty of our students traveled to attend. Daimler executives, with whom students had the chance to have informal talks and one-on-one interactions, were very impressed. Students were selected to participate based on the resumes they submitted. During the event, they were able to discuss the potential for opportunities with Daimler.

GEARE students Julian Tessarzyk and Alessandra Olivia Napoli enjoyed this opportunity to its fullest and were eager to recommend it to other students to participate. Julian noted, "On top of attending different seminar sessions, we were able to have great conversations with high-level managers across the globe. This experience showed me a lot about what it means to work for a globally dominant automotive company and how the automobile market is changing." Alessandra enjoyed being able to hear about the journey of many individuals who ascended to high levels within the company.

Highly engaged and active alumni make such events possible for Purdue students. Andreas Dewald, a former exchange student at Purdue and Fulbright Scholar, connected with several departments across campus, including the Office of Professional Practice. After completing his education with Purdue, Andreas returned to Germany where he worked at Daimler's incubator Lab 1886. When Andreas learned about the Mercedes-Benz Experience Day in Boston, he thought this opportunity would be ideal for Purdue students. The OPP's base of high achieving, professional, and globally-minded students were ideal participants.



## BOEING INNOVATION CHALLENGE

The Office of Professional Practice assisted Purdue's efforts to connect students with the Boeing Innovation Challenge- a competition in which students from 10 U.S. universities, assisted by Boeing experts, developed solutions to real-world aviation issues. Students were asked to create multi-disciplinary teams and submit their ideas to Boeing. Student teams submitting the best ideas were chosen to fly to Seattle, visit Boeing headquarters, and compete in a Hackathon.

Seven students from Purdue were chosen to compete in the final round. Biomedical Engineering Co-op student Vy Le served on a five-person, multi-university team that received the gold award. Their idea? A seatback app to enable airplane passengers to reserve a place in a virtual queue for the lavatory. Integrated with a plane's in-flight entertainment system, the app is designed to promote safety for travelers, especially those with mobility or medical issues, and facilitate flight attendants' safe movement in the cabin.

"The Boeing Innovation Challenge was an immense learning experience that presented unique challenges which differed from my Purdue Engineering classes and a product development co-op at Zimmer Biomet, a medical device company."



# PROFESSIONAL PRACTICE DONORS

The Office of Professional Practice is grateful for the support it receives from its generous alumni and friends of work integrated learning at Purdue. Without their financial contributions, OPP could not consistently offer its innovative and highly relevant programming. We would like to recognize the following individuals for their altruism and generosity!

Frederick Bried  
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Ashley Koeplin  
Karaan Mehrottra  
Hannah Post  
Sharnita Blake

A speacial thank you to Ron Haddock, Tom Malott, Bill Nelson, and Jim Rau for their incredible support of Professional Practice programs. Their magnificent generosity has already impacted thousands of Purdue students, with many more to feel their support in the years to come!



Ron Haddock



Tom Malott



Bill Nelson



Jim Rau

# THE SCHOLARSHIP RECIPIENTS

## Lenord E. Wood Scholarship



**Sarah Scoggin - Fall 2019**  
Aeronautical & Astronautical Engineering  
**Cassten Everidge - Spring 2020**  
Mechanical Engineering Technology

Established in 2007, the four scholarships honor the memory of the late Leonard E. Wood. Wood received his PhD from Purdue University in 1956 and subsequently joined the faculty as a Professor of Civil Engineering. He then became the School of Civil Engineering Faculty Coordinator for Purdue's Cooperative Education Program in 1989, a role he continued in until his untimely death in 2004. The scholarship fund exists thanks to a generous donation from Professor Wood's widow, Margaret, who sought to honor his dedication to the Co-Op program, while enabling the achievement of today's Co-Op students. OPP has awarded 32 Wood Scholarships since 2007 including this year's recipients. The Leonard E. Wood Scholarship for Cooperative Education is awarded to deserving Co-Op students based on academic merit and life-changing experiences brought about by the Co-Op program. Cooperative education never had a greater friend, supporter, or promoter, and no one better exemplified the Co-Op value of practical education as a mentor, counselor, and teacher.

William and Linda Nelson have been long-standing generous supporters of Purdue's Co-Op Program. William (Bill) is a graduate from Purdue University in 1974 earning a BS, and a year later, MS in Chemical Engineering. Having over 40 years of industry experience, Bill has recieved many awards to honor his accomplishments. Most recently, he has been inducted into the 2013 Cooperative Education Hall of Fame as well as been honored as a 2017 Outstanding Chemical Engineer by Purdue University. An endowment fund was established by Bill and Linda November of 2011, and amended December 2017. The purpose of the amendment was to encourage participation in Co-Op, and reduce the student's time to graduate. Steps to establish, support, and maintain this goal resulted in the creation of annual scholarships to Co-Op students. Additionally, incentive grants for instructors offering on-campus and/or online courses for Co-Op students have been generated in support of this goal.

## William C. & Linda E. Nelson Scholarship

**Jeanette Hill - Spring 2020**  
Chemical Engineering

**Katherine Hawkins - Spring 2020**  
Electrical Engineering

**Jasmine Hughes - Spring 2020**  
Chemical Engineering

**Kaya Wiegand - Spring 2020**  
Chemical Engineering

## ExxonMobil Scholarship Fund

**Syed Shayan Zahid - Fall 2019**  
Mechanical Engineering

**Ryan Murphy - Spring 2020**  
Aeronautical & Astronautical Engineering

A new opportunity called the "Office of Professional Practice Employer Scholarship Fund" has been created in response to two common questions asked:

**"How can I increase our brand awareness or name recognition?"**

**"What can I do to directly impact the students I need to recruit?"**

One of the best ways to help students remember and recognize your company is to assist them with their education. In line with this train of thought, ExxonMobil has recently sponsored two \$1,000 scholarships that have been awarded to deserving Co-Op students. If you would like to contribute to the Office of Professional Practice Scholarship Fund please let us know!