THE UNIVERSITY OF RHODE ISLAND
INTERNATIONAL ENGINEERING PROGRAM

Global Update

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Director's Notes

Dr. Sigrid Berka, Executive Director

In the International Engineering Program, we are creating an exceptional integrated learning environment – one that is dedicated to academics, research, experiential learning opportunities on campus and abroad, and innovation in order to prepare engineers for our global economy. The fall Global Update 2018 provides insights into how the students, alumni, faculty, staff, board members, and academic and corporate partners of the IEP have created very special bonds over the last 30 years with promising opportunities in the near future. Our faculty research continues to cement the IEP's national expertise in teaching languages for the professions: French IEP director Lars Erickson recently published his textbook *French for Engineering* and Niko Tracksdorf, Damon Rarick and others are preparing a new German textbook called *Impuls Deutsch: Intercultural, Interdisciplinary, Interactive*. Starting December 17th, our language faculty/IEP directors participated in an all-day, week-long Oral Proficiency Interview (OPI) training workshop to become experts assessing student learning. This collective effort was aimed at reshaping the way we teach and learn foreign languages at URI. To catch talented freshmen early, IEP coordinator Melissa Schenck innovated the way we do high school outreach. As you can read in this newsletter, it has been a busy year for us overall, and exciting things are happening in 2019:

Alumni in Germany: please sign up for our alumni get-togethers in Berlin (Jan. 7), Braunschweig (Jan. 8) and Munich (Jan. 17) which are integrated into this year's J-term trip to Germany. I hope to see many of you again! An invite to register for these events went out from the Alumni Association, please register and/or let me know if you want to join us!

A big thank-you to our alumni board members Kristen Riley (GIEP) and Martha Ziolkowski (FIEP), alumni Sarah Koenig (FIEP), Kelly Engels (Dual Master), Erin Papa (GIEP), Samuel Browne (CIEP), Kevin Drumm (SIEP) and Michael Palmer (GIEP) for speaking so expertly at this year's Colloquium and to Stephen Pelletier and Dan Danckert (GIEP) for their involvement in the Goethe Institute's Career Day in Newport.

As we move into the new year, please consider helping us raise 30K for 30 summer immersion and year-abroad scholarships that would allow us to impact IEP students in so many ways. A gift from our industry partners, board members and alumni shows students that our supporters have confidence in them and what they can achieve. You can access our "Give to the IEP" page here: https://web.uri.edu/iep/giving-to-iep/. We are grateful for alumni donations already received and for your continued enthusiasm for the IEP.

Best wishes for a healthy and happy New Year!

Sincerely,

Dr. Sigrid Berka

IEP Ramping Up Outreach Efforts in Local High Schools

On December 12th, thirteen URI students and staff members accompanied IEP Coordinator Melissa Schenck on a site visit to Chariho High School to promote the International Engineering Program. Turnout for the presentation was substantial, with over 150 students attending. Among those present were individuals currently studying engineering, robotics or one of the languages offered at Chariho (Chinese, French, Italian and Spanish).

Chariho HS students learning about CIEP

In the first half of the visit, participants learned about the basics of the IEP, while in the second half, they formed smaller, language-specific groups in order to focus in on what the IEP experience looks like in the different programs. Each group activity took on a different flavor, with some engaging students in language-based and/or discipline-related tasks and others providing participants with a cultural context for work, study and life in a particular country while challenging common cultural misconceptions.

A huge thank you to Melissa Schenck for organizing this event and also to IEP Directors Lars Erickson, Michelangelo La Luna and Silke Scholz, as well as all IEP Ambassadors and students for arranging interactive activities for Chariho students and making this outreach effort an engaging and memorable one for all.

Building off this positive momentum, similar outreach activities are being planned for early 2019 at North Kingston High School, Cumberland High School and others in the area. As these visits will occur during the spring semester, Melissa will be looking to also leverage alumni support for future IEP recruitment ventures. If you would like to volunteer at one of these opportunities, please send a message to schenckm@uri.edu.

21st Annual Colloquium on International Engineering Education: Pathways to Diversified and Sustainable Programs

This year's Colloquium, held November 1 and 2 in Newport, aimed to create synergies between diverse groups in several ways. While it kept some of its core themes such as the integration of engineering and languages, creating appropriate research venues, building and sustaining IEPs, and engaging industry, it also aimed to bring underrepresented groups to the forefront of engineering contexts. The three high-powered keynote addresses were given by leaders in engineering corporations and societies who are women: Emily Schmitt, Sukup Manufacturing; Dr. Rocio Chavela Guerra, ASEE; and Connie Rightmer, ZF North America. Likewise, a session was dedicated to including and funding more minority students in engineering as well as study abroad. Many of the panels featured leaders from diverse backgrounds and with demonstrated success in engineering and international education.

Participants at Connie Rightmer's lunchtime keynote

IEP alums from left to right: Kevin Drumm (URI/SIEP), Aide Robles (NAU/SIEP), Samuel Browne (URI/Flagship/IEP), Martha Ziolkowski (URI/FIEP)

The 2018 Colloquium also forged pathways and partnerships between groups that typically operate independently, bringing them together to create a powerful win-win for all. This year, high school staff in New England, who are currently building pathways to IEPs, and their students came to the Colloquium through the Goethe Institute's Annual Career Booster Day. This event, as well as the DAAD-sponsored Professional Development Workshop for German teachers from US universities, was hosted concurrently with the second day of the Colloquium so both of these events would get a boost from the IEP's company and alumni contacts in attendance. Participants in both events learned how combining STEM curricula with foreign language study can provide a more purposeful context for classroom learning and create unique career opportunities for those who follow this interdisciplinary path. As a result of this initiative, participants from all three events came together at the end of the second day to hear from alumni of International Engineering Program alums and to network with URI IEP students and a variety of study abroad program providers, all with the hopes of inspiring current and future generations to "think big" regarding global education.

This year's DAAD/Goethe Institute/AATG collaboration was meant to spark interest in and provide a model for groups from other countries and languages to explore similar collaborations at future annual meetings.

2018 Italian IEP Ambassadors Alyssa San Angelo and Michael Videtta at the poster exhibit

German-STEM Immersion Day

For high school students studying German, the first few days of November offered two very meaningful opportunities for learning, as well as a glimpse into future academic and career possibilities available to them: the German-STEM Immersion Day and the Goethe Institute Career Day. After having added the DAAD-sponsored Professional Development Workshop for college teachers to the Annual Colloquium on International Engineering Education, Dr. Niko Tracksdorf (URI) built off these synergies by encouraging the Goethe Institute to also host their annual Career Booster for students at the same time and place, and by inviting these same students to an on-campus German-STEM Immersion Day the following day.

Students crafting Moebius bands and flextangles

Teaming up to design and build bridges

The latter event, for which Dr. Tracksdorf was able to secure funding by the German Consulate, the American Association of Teachers of German (AATG), the URI College of Arts and Sciences, and the IEP, provided a hands-on environment for exploring STEM-related themes while being immersed in German. German-speaking faculty and students in the sciences leveraged their areas of expertise to provide sessions on a multitude of topics, such as: building bridges, towers and catapults; making slime to better understand fluid mechanics as well as Moebius bands and flextangles to see geometry in action; experimenting with water, salt and ethanol; and baking traditional German cookies. We are especially excited that many of our own students in the IEP stepped into the teacher role and offered workshops for the participating students.

A taste of Germany - participants baking traditional German cookies

Between the German-STEM Immersion Day and the Goethe Institute Career Booster, 88 students were present, including 9 college students and 79 high school students from 12 different schools around New England. Combining these two separate events into a back-to-back offering allowed students to hear from others who have studied German and/or STEM disciplines while also engaging them in interdisciplinary, real-world activities. As with the Colloquium and its concurrent events discussed above, this synergistic effort also aims to be a model for other languages and organizations for building innovative and integrative experiences to inspire future generations of learners.

Was ist Wasser? - Students experiment with the "shape" of water

A big thanks to Dr. Tracksdorf, GIEPers Montara Erickson, Michael Eggleston, Anne Reisch, Maximillian Hill, TU Darmstadt's Phillina Wittke, and German-speaking faculty and students who assisted with this effort!

Participants in front of the new Higgins Welcome Center

ALUMNI FEATURE: Local to Global to Local
Samuel Browne, '18 Chinese Flagship & Chemical Engineering Alum

Question 1: What made you choose engineering and Chinese?

[When] I visited URI as a high school senior, Dr. Berka introduced me to [the idea of combining] Chemical Engineering [and Chinese], and I instantly realized that this was [what] I wanted to study. [I had enjoyed] studying mathematics and chemistry... [but] I also had a passion for languages during grade school. I attended a Classical Christian school where I studied Latin and New Testament Greek. By the time I was applying for college, I knew I wanted to study a modern language. I ultimately had three criteria. Firstly, I wanted to use the language to speak with people. Secondly, I wanted to learn a language that would be of great value to employers... Lastly, I wanted to study a language where I could learn about the Eastern world, such as their culture, history, society... Growing up in the Western world, I had not previously learned much about Asia, and so [I] chose Mandarin. I had originally thought to pursue it as a minor, but when I learned about the double-major opportunity that the IEP and [Chinese] Language Flagship Program offered, I found that I could truly learn Mandarin with the intent to become fluent...[so] it could become an essential part of my future career.

Question 2: How did you manage to juggle these two extremely rigorous curricula?

As long as I knew I was putting my best effort into every assignment, even if there were periods where I was short on

Studying abroad in Nanjing

Sam at 2018 Annual Colloquium

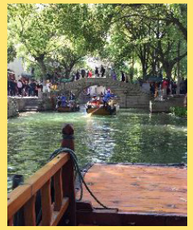
time and could not be as thorough as I would have hoped, I knew the effort would pay off and I would accomplish the learning that I needed to continue. In addition to this, a healthy balance of extracurricular activity also aided my lifestyle when balancing these majors. Whether it was being involved in the URI community (I was a part of Intervarsity Christian Fellowship on campus), going to the gym or even spending pockets of time relaxing, such activities supplemented a healthy lifestyle in the process of managing a large workload.

Question 3: Do you see any similarities between chemical engineering and Chinese?

I do see many similarities between engineering and Chinese. In other words, I think there is a logic to Mandarin that is much like the logic of engineering. For example, the Chinese word for "computer" is 电脑 (dian nǎo). Interestingly, these two Chinese characters by themselves mean "electricity" and "brain", respectively. Hence these two characters together can be literally interpreted as "electric brain", which seems very similar to the functionality of a computer. There are many more words with this kind of logic in Mandarin, [which] as an engineering student I greatly appreciated... In this way, Mandarin was somewhat easier to learn and understand than I had originally thought.

Question 4: What do you believe are the benefits of having a local internship with the same company as you interned with abroad?

It was truly a blessing to be able to intern with Teknor Apex in Pawtucket, RI for consecutive summers before interning abroad at their Suzhou facility, and once again I thank Dr. Berka and Teknor Apex's CEO Bill Murray for arranging this internship. The largest benefit of interning with them before going to China was the fact that I had already made several connections within the organization and had built a greater knowledge base within the company, thereby making the transition to interning in Suzhou much easier.



Taking in the view in Suzhou

Question 5: What was the biggest challenge that you faced while studying/interning/living in China? What was the biggest reward for you?

The biggest challenge for me was learning to build a new network of friends while being away from home. While in Nanjing, I made many awesome connections with my classmates, teachers, and of course my roommate. In Suzhou, I truly enjoyed connecting with my coworkers, and found a great church community that was truly a blessing to me during that season of my life. In this way, my greatest challenge was the biggest reward- by making more connections, I was able to nurture many great relationships.

Question 6: Where are you now and what are your responsibilities? How do you use Chinese in your job now?

I am currently working full-time at Teknor Apex in Pawtucket, RI as a vinyl process engineer. I report [to] their department of research and development, but also am responsible for production as it pertains to optimizing quality, efficiency and consistency of their manufacturing process. As a corporate process engineer, I also have the responsibility of standardizing optimal vinyl manufacturing across all of the domestic and international plants of Teknor Apex. While working in Rhode Island, I use my Chinese by keeping informed of manufacturing projects in Suzhou, and by speaking as much Chinese as possible with my coworkers who are from China.

Alumni News: What's New?

On November 24, 2018, **Daniel Danckert ('12, GIEP/CHE / '18, M.S., CHE)** married Maria Charbonneau ('12, PharmD) in a ceremony held at Christ the King Church next to URI's campus, followed by a reception at the Officer's Club at Newport Naval Station. Daniel is currently an Applications Engineer at Mahr Inc. in Providence, RI, where he works alongside several fellow GIEP alums.

Daniel and Maria walking down the aisle after their wedding mass

Mike Caneja ('15, SIEP/ELE) is currently working at Bosch Thermotechnology North America in the Boston area, where he is a Senior IoT Product Manager responsible for the company's connected thermostat portfolio and for putting together an overarching IoT strategy for its product portfolio.

Kaylen Haley ('04 GIEP/BME) was just promoted to Sr. Manager, Innovation Delivery for the Gastrointestinal & Hepatology business unit within Medtronic. In her new role, she is focused on improving how products are developed and ensuring there is strong communication and collaboration across her company's global teams.

October 13, 2018, **Nick DelGreco ('14 GIEP/ISE)** married TajaRay Ferland of East Greenwich, RI at Assumption of the Virgin Mary Greek Orthodox Church in Pawtucket, RI. Afterward, they celebrated with many friends and family members at Lakeview Pavilion in Foxboro, MA.

Nick and Taja after the ceremony

In 2018, **Graeme O'Connell ('09 CIEP/BME)** married Adrien, who is pursuing a PhD in Public Health at the University of North Carolina. They bought a house in Carrboro, NC in early August, and are working on starting a family.

IEP Internship Placements 2018

IEP Directors made 73 international placements in 2018! As of 1990, over 740 students have completed internships through the International Engineering Program. See below for the list of where this year's interns landed:

Chinese IEP

Biomedical Imaging Lab ZJU (Hangzhou, China)
BMSER Xieneng Technology (Hangzhou, China)
Hengtian Insigma (Hangzhou, China)
Offshore Pipelines & Risers (Hangzhou, China)
Teknor Apex (Suzhou, China)
ZF Investment Co., Ltd. (Shanghai, China)

French IEP

Aperan (Amilly, France)
Biotrial (Mulhouse, France)
CGG (Massy, France)
Dassault Systèmes (Vélizy-Villacoublay, France)
Enercap (Lyon, France)
Federal Mogul (Crépy-en-Valois)
IHU-Strasbourg (Strasbourg, France)
Laboratoire Electromécanique de Compiègne (Compiègne, France)
Laboratoire UTC TIMR (Compiègne, France)
Sixense Soldata (Nanterre, France)
Société Générale (Fontenay-sous-Bois, France)
UTC Terres Inovia Laboratoire (Compiègne, France)

Italian IEP

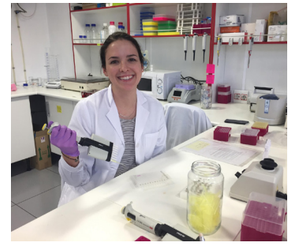
SIDAT (Trofarello, Italy)
GOM (Perugia, Italy)
Hexagon Italia (Grugliasco, Italy)
Taco Italia (Vicenza, Italy)
ZF Italia (Arco di Trento, Italy)
Manini Prefabbricati (Assisi, Italy)
Laboratorio Grandi Modelli Idrauli (Rende, Italy)
IMAS (Mariano Comense, Italy)

Japanese IEP

Hokkaido System Science (Sapporo, Japan)

Spanish IEP

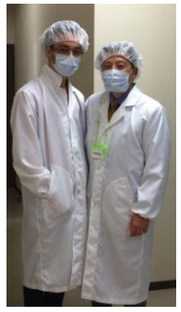
Boston Scientific (Coyol, Costa Rica)
CIRCE (Zaragoza, Spain)
ECOS Canarias (Las Palmas, Spain)
Era7 (Granada, Spain)
IH Cantabria (Santander, Spain)
SEAT S.A. (Martorell, Spain)
Vidal Vademecum (Madrid Spain)



Abagail Hunter (SIEP/CHE) at Era7

German IEP

AICON 3D (Braunschweig, Germany)
AICON 3D (Meersburg, Germany)
BMW (Munich, Germany)
Bosch (Stuttgart, Germany)
Coplan (Regensburg, Germany)
Daimler (Stuttgart, Germany)
DB Engineering and Consulting (Hannover, Germany)
Hochtief (Hamburg, Germany)
IAV (Gifhorn, Germany)
Institute for Automotive Production, TUBS (Braunschweig, Germany)
Kidney Center (Wesseling-Brühl, Germany)
Lufthansa Technik (Hamburg, Germany)
Maurer (Munich, Germany)
Max Planck Institute for Brain Research, (Darmstadt Germany)
Merck (Gernsheim, Germany)
MTU (Munich, Germany)
NYNAS (Hamburg, Germany)
Porsche (Stuttgart, Germany)
Siemens CT (Erlangen, Germany)
Siemens CT (Munich, Germany)
Siemens Large Drives (Berlin, Germany)
Silpakorn University German Department (Bangkok, Thailand)
Volkswagen (Hannover, Germany)
Volkswagen (Wolfsburg, Germany)
ZF (Friedrichshafen, Germany)
ZF (Kressbronn, Germany)
Züblin (Düsseldorf, Germany)



Paris Jones (JICSP) and JIEP Director Manabu Takasawa at Hokkaido System Science

Montara Erickson (GIEP/CVE) at Hochtief

THINK BIG WE DO℠

International Engineering Program
University of Rhode Island
61 - 67 Upper College Road
Kingston, RI 02881

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