

20th Annual Colloquium

The celebratory *20th Annual Colloquium on International Engineering Education: Proven Methods and New Frontiers* was held in Flagstaff, AZ Nov. 2-3rd. The IEP team provided leadership through presentations on sustainable humanitarian engineering design (Silke Scholz), situated learning in the German for professional purposes classroom (Niko Tracksdorf), assessment results of engineering student intercultural development (Sigrid Berka) and by heading round tables on vision, best practices and alumni relations (Angela Graney, Silke, Niko, Sigrid). John Grandin gave the keynote speech looking back at "twenty years of productive collegiality" and on the impact of the Colloquium as "a paradigm for interdisciplinarity in higher education, as it brings multiple constituencies together for a common end." John quoted some thought-leaders of the beginnings such as Britta Baron, then director of the DAAD who, inspired by the Colloquium's bold agenda, not only started sponsoring it but also implemented new STEM programs in DAAD's higher education strategy. Bernd Widdig, founder of the MIT-Germany program, credits the Colloquium with giving "us trailblazers and pioneers a sense that we were not alone with our idea of integrating foreign language learning into engineering and science education. I still remember my personal excitement of finding like-minded people from different parts of academia."



Grand Canyon Tour post Colloquium

Niko Tracksdorf

Starting this fall, a new face has joined us as German IEP coordinator: Dr. Niko Tracksdorf was born in Germany and has a Staatsexamen in English as a Foreign Language, Mathematics, Social Sciences, and Education from the University of Duisburg-Essen (2010). He also has an M.A. in German Studies (2012) and a Ph.D. in Literatures, Cultures and Languages (2017) from the University of Connecticut.



Before coming to the University of Rhode Island, Niko worked at UCONN, teaching content-based German language courses for their German program. Through his effectiveness in combining German and Engineering in the classroom, he earned a university-wide award for Excellence in Teaching.

At URI, Niko's main function is to place GIEPers in internships and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German host companies, and coaches students in submitting their German internship as well as scholarship applications. He will be assisting in running the Germany January-Term program 2018, which is funded by the Max Kade Foundation and the DAAD.

THE UNIVERSITY OF RHODE ISLAND INTERNATIONAL ENGINEERING PROGRAM

Global Update

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Alumni Highlights



German IEP reunion at Schadt's Brauerei.

One of this year's highlights was definitely the alumni meeting on the 29th August 2017, which was held at "Schadt's Brauerei" in Braunschweig.

All of the attendees - Erik Anderson, Roman Gerbers, Brian Kintz, Constance and Philipp Klüver, Rüdiger Kusch, Jan Lesemann, Nadine Mandanchi, Christoph Mueller, Kim Neumann, Johannes Riedel, Silvia Schinner, Fabian Wagner, Andre and Ira Zierfuss - met there for dinner and networking opportunities, and organizer Michele Nota shared the latest URI news and developments.

Johannes Riedel, a former dual master student (TUB and URI) and founder of *devfinitly*, shared the following thoughts on the event:

"The cooperation between URI and TU Braunschweig is extremely valuable for participants of Dual Degree programs from both universities. It was great to meet with alumni from other years and to share experiences from our time in Rhode Island."



Dual MS TUB/URI '17 Johannes Riedel.

Director's Notes

Well into the Fall semester, the IEP team, strengthened by its newest member Niko Tracksdorf (see bio on p. 4) just returned from the *20th Annual Colloquium on International Engineering Education* at Northern Arizona University's Flagstaff campus. Together with engineering and language educators across the country and from overseas we strategized on proven methods and new frontiers (see summary on p. 4). Silke Scholz presented on the grant-funded collaboration on Sustainable Prostheses Design across the Americas. The international teams made plans to continue their research and educational collaborations in the future (see article on p. 4). Along with our usual crowd of international exchange students who are enriching our living and learning community and URI's engineering research labs and classes, we welcomed the first three dual master students from TU Darmstadt in our Electrical and Civil engineering departments.

Our alumni network is also flourishing: the well-attended reunions in Munich (July), Braunschweig (see on left) and Berlin (September) attest to that. MCE/GER '02 Erik Anderson just extended internship offers to several new GIEPers at his company IAV in



Group Picture of the students and faculty from URI and SENA together with our patients; picture was taken during our Design-a-thon at SENA Centers in Barranquilla, Colombia.

Gifhorn; CHE/FRN '14 alum Kayla Belanger welcomed an FIEP intern to work along with her on her dissertation at UTC this summer; ELE/SPA '05 alum and IEP board member Meghan Soens helped Silke connect to Boston Scientific where we had an intern last spring semester. CHE/GER '16 Ian Calise who is pursuing a master's degree at TUB is assisting us with advising the large group of GIEPers on the Braunschweig campus. CHE/GIEP 1994 Kristen Riley just joined the IEP board and will work on the IEP program committee. Lastly, we are looking forward to having our long-time IEP board member and '00 Dipl./MBA Toby Lührig, his wife Anke Langner, and children Carl and Aida with us at URI during their month and a half sabbatical in December and January. Anke will collaborate with the department of Education on inclusion pedagogy. Toby will provide his expertise to entrepreneurship, design and management classes in the Colleges of Engineering and Business and help the IEP with strategic planning, evaluation and student-alum engagement.

To all in the IEP family a Happy Thanksgiving and best wishes for the holidays!

Sigrid Berka

Global Engineering with a Social Impact

We have recently reported on the first steps of our project "**Sustainable Prostheses – An All-Inclusive Approach to Designing in the Americas**". We are pleased to announce that our teams with students and faculty from URI and SENA have successfully designed, printed, assembled and delivered new prosthetic arms for four patients in Colombia.

After virtual teamwork and numerous skype meetings with our colleagues and patients in Colombia, we were well-prepared for our first bi-cultural Design-a-thon here on campus in June that was led by Prof. Kunal Mankodiya and Joshua Gyllinsky along with our colleagues and professors Efren Garcia and Omar Gutierrez. The Design-a-thon was concluded with a showcase event and all teams presented their



From left to right: James Gannon (ELE & SIEP), Laura Parra (BME & SIEP) and Gustavo Perez (SENA) discuss the best way to assemble the prosthetic hand for one of our

work and designs to the public. It was a great experience to host our fellow students and faculty from SENA here at URI, at the IEP and in Rhode Island. Even more exciting was our field study trip to Barranquilla, Colombia on the coast of the Caribbean Sea in August! Together with Silke Scholz, our Engineering students, embarked on the journey to a second Design-a-thon in Colombia with the goal to create and deliver the prosthetic arms to our patients.

The students worked hard and they overcame many challenges, including language barriers. The students also immersed in the Colombian culture and travelled to Santa Marta and Cartagena. The Design-a-thon ended with a celebration for and with our patients and their families. It was an unforgettable, intense and eye-opening experience. Laura Parra (BME & SIEP) says: "This opportunity was absolutely amazing. Ever since I began my career as a Biomedical Engineer at URI, I had a long term goal of returning to my home country, Colombia, to help individuals who had suffered the loss of a limb. I was granted this dream much sooner than I had ever thought and I was able to put my engineering and Spanish speaking skills to the test."

It was amazing to see the immediate impact our work had on our patients' lives and their families! "We were able to change someone's life for the better and that is the most rewarding

thing ever. As a student it makes my classroom work worth it as well. Being able to apply what I learn in class is always beneficial." Corvah Akiowala (BME) said.

During the 20th Colloquium on November 2 and 3, 2017, we concluded our project by presenting our work collaboratively. Along with Silke Scholz, James Gannon (ELE & SIEP) and his Colombian team mate Jairo Orduz (Mechatronics) presented their work with their patient, a 7-year old boy.

What makes this project sustainable is that the designs we used and developed will be available for many patients in the future. In addition, since our prosthetic arms were created for representatives of four different age groups, we are able to have a design for everyone. James Gannon draws on his experience: "... the look that the prosthetics left on the patients' faces gave me an overwhelming feeling of hope, knowing that with time and advancement of previous designs, one can give a piece of someone's life back, or potentially give them the life they never had." We agree with Prof. Efren Garcia who said: "We hope that this project will continue and move towards a deeper work in this field. The knowledge and experience gained is of great value to us as professionals and people."

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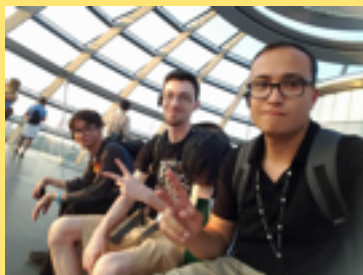
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Crossing Borders: Moving Between Cultures

All IEP students face different obstacles and culture shocks, or encounter similarities when going abroad, regardless if they are American students going out into the world or if they are foreign exchange students living in the U.S. for the first time.

From URI to Germany: Ibrahim (Eb) Brown, German IEP

"One of the positive things about my internship in Germany is that I think my mindset matches both, American and German: In America it is more relaxed etc., but the German working culture matches my more structured, focused side, and I felt more in zone at my workplace. On the other hand, since German people usually communicate more directly it was difficult for me to start a casual, simple conversation in my work environment like I would in an American workplace. Here small-talk escalates into deeper conversations, whereas in Germany it is easier diving into them more directly. However, since I am back in the U.S. I absolutely miss the traditional German festivals: here there are no festivals from Christmas until summer, but during my year abroad I went to Oktoberfest, Frühlingsfest, Weihnachtsmarkt and many more all year around. I also encountered a reverse culture shock, when I came back and noticed American flags everywhere. It felt like an interesting part of our culture, because in comparison to Germany, there is a total flip in the attitude towards patriotism."



From right to left: Eb Brown, Conner Briden, and Miles Garceau in Berlin.

From Germany to URI: Andre Kretschi, German IEP exchange student from Braunschweig

"Getting the chance to study here in America at URI gave me an opportunity to have a deeper look into the differences, but also the similarities of the two different cultures: I feel like young people from Germany and from the U.S. both share pretty much the same values, attitudes, problems and hobbies, but the life on campus here is completely different from living in a 'Studentenwohnheim' in Germany. Especially Greek life was sort of a culture shock for me, since I always thought all those American movies about fraternities and sororities just exaggerate the truth. However in reality, it's the opposite: those movies come very close to how it really is, and it was interesting for me to encounter that. In Germany, we also have clubs or students' associations, but they don't compare to fraternities or sororities at all. Another aspect in regards to that is, that amongst students here there is more community spirit, whereas in Germany there is more competitiveness. Besides that, it was hard for me in the beginning to learn the various social rules that only apply to America, but not to German culture, nevertheless spending time living in a culture is the only way to get to know these. But after all, I definitely feel more comfortable, now that I've learned so much about the American culture."



From left to right: Andre Kretschi (TUB), Jasmin Kiss (intern for IEP), Christian Kleeblatt (HAW) and Dena Sloan (national exchange student, Minnesota), visiting New York.

From URI to Chile: Micah Kittel, Spanish IEP

"The moment I arrived in Chile, all I felt was excitement - Excitement for this new culture with differences, similarities, and I was very attentive to every single detail like the people, geography etc. I had been preparing for this moment the last year of college, but even though I attended Spanish classes, the Chilean dialect was a great culture shock for me, because the Chilean people take a whole new spin on the Spanish language. Besides that, I totally fell in love with my life in Chile, everything about the culture, the food, the social dynamic in families and communities was pleasant, I felt comfortable and accepted right from the start. During my travels around Chile, especially in rural areas, I encountered a more eco-friendly behaviour than in America, because Chilean people seem to genuinely care about using their resources mindfully. Also, my reverse culture shock was the American perception of time compared to the Chilean, because the social pressure to have everything planned out and structured is less intense there."



Micah Kittel (right) exploring the raw beauty of Chile.

From Spain to URI: Marta Hernandez Oliver, Spanish IEP exchange student from San Sebastian

"My first impression arriving here was how helpful and friendly people were, everyone approached me very openly and was always there to help me. Furthermore, I got the impression that they organize way more things here in regards to the social life on campus, like all those clubs etc., which is so different compared to my university in Spain. However, my culture shock coming here was how students behave in class - at home you couldn't not pay attention without the professor being obviously mad at you. What I miss most about home is Spanish food, especially healthier options or fresh fruit, and we also tend to eat at completely different times of the day, which sometimes causes trouble for all the Spanish exchange students. Talking about cultural differences, I noticed that here people are more open and offer help quicker, but at the same time I feel like interactions are just on the surface, for instance "How are you?" is just a way of greeting instead of the person really wanting to know how you feel. Nevertheless I see the IEP exchange program as a big opportunity to look behind the surface, so hopefully I will soon be able to tell where these cultural peculiarities come from."



Marta Hernandez Oliver (left) celebrating the 125th anniversary of URI with other international students.

From URI to France: Ian Kanterman, French IEP

"When I arrived, I got lost on my way from the airport to my apartment, but luckily an elderly French woman stopped to help me, which is not that common in France. Usually French people are friendly and helpful, but only if you approach them and respond to them in French, so that's what I did."



Ian Kanterman enjoying Strassbourg during summer.

Overall I think the big difference between people in the U.S. vs. people in France is the ambiance: French or European people in general seemed happier, they didn't get caught up so much on little things. However, I also encountered a culture shock when I was confronted with the French meal times, which are very defined and the meal sizes are different as well, and especially in the beginning I had a lot of trouble with my stomach. Funny enough, when I came back home the same happened again as a reverse culture shock, when my body had to adjust to American food. In addition to that, the hardest part of coming back home was to see all my friends I started Freshman Year which had already graduated and I had to go on without them - but seeing other cultures and meeting or even becoming friends with people all over the world was totally worth it."

From France to URI: Benoit Pierson, French IEP exchange student from Paris

"I felt really intimidated at first; it is such a big country and I felt like a 'little French guy' in America. That feeling got even worse when I went through customs at the airport, but in general people are very friendly and polite, which was also one of my first impressions when I arrived here. Nevertheless, I miss French food and having close friends, because being 'friends' here has a totally different meaning, but what's positive about American culture is that everybody is very friendly and open minded. For what I experienced, Americans are ready to help at any times and often offer it themselves, whereas in France no one would do that, except for when you would ask them if they can help you. Another difference is that here I get the feeling that people produce more waste than in Europe, people there try to recycle as much as they can. Besides that what stuck out for me the most was the fact that self-reliance as a value is very common in America: you have to work hard to be someone, and even in college you are supposed to do so much more than in French universities."



Benoit Pierson at Times Square.

From URI to China: Minh Pham, Chinese IEP

"The first thing I noticed when I arrived in China was the smell, which is totally different, and the Chinese food was crazy, because it's not really the "Chinese food" that we know as Americans. Also, I had never thought that the public transportation in China would be good, but it's actually amazing and one can get around very much for less money compared to the U.S. There are subways and busses everywhere and I travelled a lot throughout China and even Japan, which was definitely one of the best parts about my time abroad, because I got to see a lot of the Asian culture. One big difference is that people consider different things rude, for example in China people don't wait in line to order their food, but everybody rushes to the counter making sure to get themselves something to eat. Chinese culture is in general very competitive. During my internship I've also learned that smoking plays a huge role in social life: everybody was constantly smoking in the offices, and as a form of bonding everybody offered cigarettes to me or other co-workers. It is also very common that you live close or even in the same place that you work, like on the construction site, so you could be together with your colleagues 24/7."



Minh Pham travelling China and Japan.

From China to URI: Haoyi Lu, Chinese IEP exchange student from Hangzhou, Zhejiang Province

"One of my first thoughts when I arrived here in America was that it is so much land with so little population, hence it must be very difficult to move without cars. This proved to be right, since most of the American and a lot of international students have their own cars and it is very hard to go places without one. There is public transportation, but it is rather unreliable. However what I consider a culture shock was when I discovered that Americans don't wash their clothes by hand or don't hang wet clothes on balconies, but use a dryer. In China it is very common to wash your clothes by hand, and even people from the middle class or upper class usually don't use a dryer at all, so I was and I still am afraid that in America I would be perceived as poor if I washed my clothes by hand. Another cultural difference is that when people face problems with someone else, the Chinese are more likely to endure it without addressing it, while Americans tend to say it directly. One of the most positive things about America in my opinion is the freedom of speech. There was a time when I saw people gathering in front of the Memorial Union at URI, and they were debating about homosexuality. They held different opinions, but instead of fighting each other, they just expressed their own opinions. It is so good that everyone can speak up and say out loud what they want to say, without someone disrupting them. Last but not least, a similarity that both - American and Chinese culture - have is the admiration for hard work."



Haoyi Lu at Martha's Vineyard.