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 student and faculty from URI and SENA have successfully designed, printed, assembled, and delivered prosthetic arms for four patients in Colombia. After virtual teamwork and numerous skype meetings with our 4 patients in Colombia, we were well-prepared for our first boutique-designathon here on campus in June. Our goal was to work together with our colleagues and patients in Colombia. All-Inclusive Approach to Designing in the Americas

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 Barka) and by leading round tables on vision, pet 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 provoking statements from the beginning of his 30 year history presented by the Braunschweig Domestic Affairshole, “holy trinity” days dedicated to the IEP, and support and understanding from the hosting university.

Before coming to the University of Rhode Island, Niko worked at NOC/MUC, provided German language courses for our German students. The students worked hard and they overcame many challenges, including language barriers. The students also immersed in the Colombian culture and traveled to Santa Marta and Cartagena: The Design-a-Thon ended with a celebration for all the students and the families. It was an unforgettable, intense and eye-opening experience. Laura (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 ever had 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 Akwakwa (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 Akoiwala (BME) said. “This project was a tremendous experience for everyone. James Gannon draws on his age groups, we are able to have a design created for representatives of four different patient, a 7-year old boy. What makes this project sustainable is that we were able to put my engineering and Spanish speaking skills to the test.”

From left to right: James Gannon (ELE & SIEP), Laura Panza (BME & SIEP) and Gustavo Perez (SENA) discuss the best way to design a prosthetic hand for one of our patients. 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 a new life” We agree with Prof. Elton Garcia who said: “We hope that this project will continue and move towards a deeper work in the field. The knowledge and experience gained is of great value to us as professionals and people.”

One of this year’s highlights was definitely the alumni reunion of the last Design-a-Thon, which was held at “Schadt’s Brauerei” in Braunschweig.

All of the attendees - Erik Anderson, Roman Gerbers, Brian Kintz, Constance and Philipp Klöwer, Rodger Kusch, Jan Lesemann, Nadine Mandanchi, Christoph Mueller, Kim Neumann, Johannes Riedel, Silvia Schinner, Fabian Wagner, Andrea and Iria Ziefuss - 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 at URI and member of the design-a-thon” in Colombia with the goal to create and deliver the prosthetic arms to our patients.

As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany. As such he is helping to expand the portfolio of German programs, and teach classes preparing them to enter their year abroad in Germany.

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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. I had to get used to the German work place. 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, Weinfestmarkt and many more all year around. I also encountered a reverse culture shock, when I came back to Germany. 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 Germany to URI: Andre Kretzsch, 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 Americans from the U.S. both share pretty much the same values, attitudes, problems and hobbies, but the life on campus here is completely different. I have been involved in a ‘Studentenwohnheim’ in Germany. Especially Greek Life was sort of a culture shock for me, since I always thought all those American movies and cartoons were completely true. 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.”

From URI to Chile: Micah Kittel, Spanish IEP

“The moment I arrived in Chile, I felt very excited and fortunate - excitement for this new culture with different attitudes, 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.”

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 and events that you can’t really find in Spain. However, my culture shock coming here was how students behave in class - at home you can’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 there are more people and open here and more open, but at the same time I feel like interactions are just not 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 breathe where these cultural peculiarities come from.”

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. 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 on much as Americans do. 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, and that 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 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.”

From China to URI: Minh Pham, Chinese IEP

“One of my first thoughts when I arrived here in America was that it is so much land with so little population, it must be very difficult to move without cars. This proved to be right, since most of the American students here didn’t have a car. Not having a car was quite a surprise and hard to go places without one. There is public transportation, but it is rather unreliable. However what I didn’t find was 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 dry cleaner, or hang them on clothes dryers 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.”

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

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From China to URI: 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 very general 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 even after work, shared a cigarette with any new 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.”

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