FROM

Chemical Engineering

UNIVERSITY OF TORONTO

TO

University of Stuttgart

Subsurface Remediation

Germany

A report by Sapna Kukkar.
DECISION
They say the second year of chemical engineering at the University of Toronto is one of the most strenuous and tiring years you will face, and unfortunately, I’d have to agree. The endless quizzes, problem sets, midterms and labs leave you completely drained that even the thought of applying for summer positions seems too laborious. Thoughts of “If only I could get away this summer…” echo in your mind relentlessly but it’s much easier said than done. Knowing that all your classmates will land stellar technical jobs that will help them get hired in the coming year, you can’t afford to slack off, not in an environment this competitive. There had to be a way out. There had to be a compromise. With no real hopes or expectations of even being accepted, amidst the many other things on my to do list, I applied to go on Engineering Summer Research Exchange.

INVITATION
February 10, 2014

Dear Sapna,

I am pleased to confirm that you have been nominated to participate in the Student Exchange Program for 2014 Summer.

Your nomination is for the Engineering Summer Research Program at University of Stuttgart (SUPER) for the 2014 Summer term.

It seemed too good to be true. Way too good to be true. Not only did I get accepted, but to the university of my choice! The security of knowing my summer wouldn’t go to waste, that I could stop thinking about getting hired and actually pay attention to school washed over me, but so did nervous excitement. 2 months. 2 months away from all this, in Europe. If that’s not every teenage girl’s dream I’m not sure what is to be honest. The last two months of school were spent rushing to submit required forms to the Centre for International Exchange (CIE) to validate my spot at the University of Stuttgart. It was an exciting process to be a part of aside from the usual classes, but it didn’t really hit me until the pre-departure session that I was actually leaving my comfort zone; that I was travelling alone for the first time ever, and leaving Toronto for the second time since birth.

TRAVELLING
June 1st. The day had finally come. For better or worse I wasn’t too sure at that point. I had no idea what to expect from modern day Germany but as a self-proclaimed historian I felt pretty confident in my historical knowledge about the country. My interest in Germany had actually extended from my love for European history, admittedly an unusual interest for an engineering student, but after learning so much about the country in high school I had decided I had to visit it. The fact that I was only hours away from ticking this off my bucket list seemed unreal. I spent my long flight watching videos, too excited to sleep, not having slept the night before either. My body was tired but my mind was restless. All that came crashing down as I landed in Stuttgart and failed to locate my checked baggage. I checked every possible conveyor, and felt the despair and panic set in all at once. Apparently it was never transferred from my stopover at London’s Heathrow Airport. It wasn’t my fault, it wasn’t my bad luck, it was an honest (and pretty common) mistake by the service crew so why did I feel so victimized? Why did I suddenly feel like I wasn’t ready to be out travelling on my own and regretting my decision, regretting all the joy and excitement I felt leading up to that moment of landing in a country I’ve always wanted to visit? I felt as if part of my body was detached not knowing when my stuff would be back with me, and imagining living in a foreign country with only a couple hundred euro and no clothes or necessities but I knew I couldn’t mope at the airport forever. Someone was waiting for me after all.

WELCOME BUDDY
The University of Stuttgart has a helpful addition to their exchange program where you can get a “welcome buddy” to come pick you up so you don’t get lost (and feel like I did) upon arrival. When we finally met I was so glad to see someone who actually listened to my worries and reassured me about my stuff. My welcome buddy had told us we’d be taking the metro to the campus from the airport. I complied as I assumed he knew where he was going but it seemed a bit odd to me. In Toronto you simply don’t do that. Rarely do people take public transit to the airport (or back) as it takes forever and is super inconvenient. I think that’s when I first realized, I wasn’t at home anymore, that I hadn’t
seen much of Stuttgart (or Germany) yet but that I could get use to how technologically advanced it was.

**CAMPUS**

Upon arrival at campus I couldn’t help but let my eyes linger and anything and everything. The buildings looked very industrial, nothing like any campus I had visited in Canada, but the biggest difference was the greenery. I had to do a second take because it looked like something out of a nature documentary. It was just stunning and beautiful, although to what extent, I wouldn’t discover until the following week when I explored the forest/ravine area behind the dorms.

**BRAVING KÖNIGSTRAßE**

In order for me to retrieve my luggage, the airline had said I needed to give them a phone number as soon as possible, the only problem was, I didn’t have one. Thus, mere hours after landing in Germany, having not slept in about 48 hours, I was off to the market in search of a SIM card. Thankfully I had ran into some of the other Torontonian SUPER students at the International Centre to tag along, otherwise I’d have been completely lost. Well, we got lost anyway, but at least we got lost together. Königstraße (romanized as Koenigstrasse) or "King’s Street" is actually the longest pedestrian street in Europe and visiting it for the first time was intimidating but definitely one of my most vivid memories. It was just so "stereotypically" European with huge show rooms lining both sides and small outdoor cafes and bars littered along the centre. There seemed to be so much happening and in all that madness, people were sitting down on the grass, relaxing and enjoying the weather. I ended up getting what I needed that day but we stayed out for much longer, familiarizing ourselves with the city we’d call home (for the next few months).
VEGAS
On my third day in Germany, after registering at the university and getting other such formalities completed, it was time to greet my host institution, VEGAS. It wasn’t as nerve-wracking as I’d previously imagined since coincidentally two other SUPER students (Anukriti and Krithika, who I knew from Toronto) were placed at the same institution. We looked up the address and found our way there after asking around (and completely mispronouncing) the name of the professor we’d be working with. Shortly after, we were introduced to the team, the institute and particular PhD students we would be working under. To our surprise, everyone was overly welcoming and easy to talk to! I couldn’t help but mentally make a comparison to the uptight manner of which you’d approach authority figures at UofT and how different a research position would be back home.

It wasn’t until we started coming in regularly that we learned that VEGAS stood for “Versuchseinrichtung zur Grundwasser- und Altlastensanierung,” an acronym way too long for our foreign tongues to pronounce, which roughly translates to “Research Facility for Subsurface Remediation,” which is what our research was concerning. In the short time that we were working at VEGAS, we had the opportunity to participate in multiple experiments and the freedom to float around and help out one another with various tasks. Even though I was not assigned to a particular experiment, if I was interested in it, I could go watch or participate if they needed any help.

This allowed me to garner so many new skills in various fields. I got to practice my lab skills by working in the analytical lab from time to time, take liquid and gas samples, run the GC, collect and analyze data and do lots of hands on work in preparing for experiments, building piezometers, and help in the construction of a geothermal probe. We were even lucky enough to help “clean up” a past remediation site at a factory and a feel for how the technology is implemented and how much work goes into installing and uninstalling the setup.

Each and every day spent at VEGAS was full of new things to learn and try but the most memorable aspect was definitely the team we worked with. VEGAS made us feel comfortable and right at home, they taught us a lot of technical things regarding our work but also helped us plan our holidays, kept us in the loop with events happening in and around Stuttgart and taught us so much about Stuttgart and Germany as a whole.
STUDENT LIFE
Undoubtedly if I had gone to Stuttgart as a tourist as opposed to a student, my experiences would be really different. Being a student in Stuttgart (or even in Europe in general it seems) definitely has its benefits! Some of the many include: free (or cheap) tuition, free public transportation (after 6pm), discounted entry to just about everything, and delicious cafeteria food with so many options! Student life in itself is really different. Based off my experience and the conversations I had with those in my dorm, most people don't commute, and parties start Thursday because "Friday is already a weekend."

Speaking of, partying was also quite different in Stuttgart. It was so relaxed compared to parties here. As expected, there was tons of beer and liquor involved, but unlike in Canada, it wasn't "wild." It's probably because everyone's tolerance was so much better, but people were just enjoying themselves having a good time and enjoying the music as opposed to trying to hookup with one another. It was not uncommon for people to attend parties in groups of friends rather than as couples. Furthermore, no one dressed up for the occasion. Here people spend more time preparing for a party and deciding what to wear, yet across the ocean, they just go in whatever and have fun instead of worrying over insignificant matters.

The attitude and approach to school is also poles apart because their exams count for 100% of their mark. This gives them leeway to class attendance, problems sets, and whatever other worries stress students on the daily in Toronto. Such an environment leads to an even more stressful exam period but also to a more calm and relaxed learning environment for the rest of the school year. People aren't obsessed with the idea of getting a degree and graduating, but rather with learning and enjoying their lives along the way. This truly made me appreciate the way that things are done in Europe. It made me realize that our western approach to life is skewed to build a repertoire, to become "something" before we can settle down and relish in our accomplishments. Although this seemed logical at one point, it sounds mad now. Life is meant to be enjoyed, each and every moment, because it's so fragile yet we've put that all on hold for a greater future.
Before travelling, I had read numerous blogs on how it can change your outlook on life. They were great reads but I thought my ideals were set in stone, that it wouldn’t happen to me. Clearly, I was wrong. Every problem blown out of proportion in my life as a student in Toronto doesn’t seem to exist in Stuttgart, and it wasn’t as if they disappeared but because the approach to life was geared more towards living life than existing and fitting into what we consider societal norms.

EUROPE
One of the most amazing things about Europe in general was how conveniently small it is in comparison to Canada. Being a Torontonian since birth I have rarely left the GTA let alone Ontario. It never made much sense to go visit another province because although it’s still the same country it would take days to drive to some and hours on a plane. In Europe however, everything is so within reach. In a matter of hours you can go from one country to the next and still be back to work the next day. With a continent to explore and an extensive rail system at your convenience, it was begging to be taken advantage of, so I did.

Cafeteria meal (all for under €3.00!) and shot from a colourful, outdoor, campus party.

Some shots from Luzern, Switzerland! (On and around Mount Pilatus)
Some shots from Venice and Rome, Italy! (Waterways, FOOD, COliseum, Pantheon)

Some shots from Paris, France (Pont des Arts, Notre Dame Cathedral, Sacré-Cœur Basilica, Arc du Triomphe, the city and of course, the Eiffel Tower)
ALL GOOD THINGS COME TO AN END
In addition to those above, there were so many other places I had the chance to visit (in Germany itself) which were equally as impressive; including Triberg, Titisee, Ludwigsburg and Berlin. Each city had so much to offer but what shocked me was how the culture varied so greatly from place to place even though they weren’t that far apart geographically. To me, Germany will forever remain a land of opportunity: I got to work there, travel about, learn so many new things and even attend a Kpop concert when in Berlin. Even though my experience started off less than ideal, it added to the personal growth and challenges I overcame as a student abroad. There’s so much to see and experience in Germany that I know I’ll going back in the future.