

Report on the Energy Technology Triple Degree program 2019 - 2021

Having just completed the Triple Degree Master's program in Energy Technology offered jointly by the universities of Lappeenranta (FI), Saint-Petersburg (RU) and Hannover (GER), I would like to report about my experiences at all three universities.

Lappeenranta

The arrival in Lappeenranta and transition into Finnish student life was pleasantly smooth thanks to the good care given to foreign students. I arrived in Lappeenranta late in the evening by train from Helsinki, and was welcomed by a driver sent by the university. He brought me to my dormitory where I was met by Emmanuel, my very committed tutor. As restaurants were closed at this time, he invited me to his home for dinner. After a night sleeping on the floor (mattresses are not provided by LOAS and are usually sourced from other students, which, as I learned, is advisable to organise before arrival) Emmanuel organised a meeting with another student from his tutoring group, who was also in the triple degree. This way, first friendships were quickly found. My Finnish companion had declined his first apartment offer by LOAS and now resided in "the bomb shelter", a basement under one of the dorms that he shared with a bunch of other guys and some spiders. At least they were provided with a mattress through.

In the following orientation week, we got to know the university and student life, which was a wild mix of Salmiakki liquor and sauna parties. We slowly managed to find the other triple degree students, and it turned out we were 5 in total (minus one who soon decided to complete his studies in Finland). During orientation week, a group of friends quickly formed out of Erasmus students and Fins, who are loosely in touch until today. I advise all Erasmus or triple degree students to find such "mixed" groups, rather than just connecting with people from their own country, which I'm sure is easiest and done by some.

Student life is strongly characterised by the guilds. Each study program has its own guild, which gives out overalls in the guild's colour and organises student events such as excursions, sittings¹ and sauna parties². In my eye's, they are the key factor for the strong feeling of community that I witnessed among students in Finland. When you have some time during lectures, please check out your guild room for a can of Vittu Karhu with the other students!

Teaching in Finland was pleasantly different from what I was used to in Germany. While my German Bachelor's grade was entirely formed from exam grades, and I spent most of my time studying for finals, LUT teaching relies more on project work, performed in teams or alone, throughout the semester. In my opinion, this kind of work is more rewarding and satisfying and results in a better learning outcome, but also a higher overall workload.

In conclusion, the first semester was the most hard-working, but also the most fun semester of the whole program.

Saint Petersburg

After a hardworking, but extremely fun and party-fuelled semester in Finland, the four of us came to the city of Saint-Petersburg with high expectations. We entered Russia via bus from Lappeenranta, a roughly 5-hour ride through Karelian forests. Arriving in Saint-Pe on a late winter evening, we were

¹ Sittings by the way are the best part of studying in Finland, make sure not to miss them! They are rather formal, seated parties in accordance with Finnish customs: Drink and sing, but no talking! They are also held in English by the ESN.

² Sauna is the main place to get Fins to socialise with you. You'll soon figure out how not to burn your lips on a hot can of beer, however when asked to play the sauna Klonkku, kindly decline!

met by two younger students who were instructed to guide us to our dormitory. Their instructions however were rather unclear, resulting in a lengthy search for our longed-for beds. Luckily, a Russian friend helped us out, and after climbing a few fences, he found our dorm. Soon we would find out that this kind of lack of organisation and miscommunication are rather the norm than the exception at SPBPU.

For the time being however, we were astonished by the magnificence of the city. As there are enough sources bearing witness to the beautiful and monumental architecture, both from tsaristic and soviet times, including the famous Metro system which is a tourist attraction on its own, I will spare you a lengthy description. Just this much: the best view of the city, if you're feeling adventurous, is one of the many roof-top tours that are advertised with spray-paint on the sidewalk.

However SPBPU is not located in the city centre like Saint Petersburg State University (SPBU), it can be reached easily by Metro. So find your seat on the red line, as it takes you straight to the best clubs and every Erasmus party! As SPBPU doesn't have an Erasmus chapter on its own, you'll be attending the Erasmus events offered by the SPBU. But no worries, there are plenty of them. If they offer the Dacha party again, take it!

I will not bore you with a description of the teaching quality and our learning outcome. Just focus on the fun stuff, like parties and sight-seeing, I promise you'll have time for it! Instead, I'll come to a wretched topic that hopefully won't concern you anymore. Arriving on February 1st, 2020, Corona hit us about 6 weeks into the semester. As the world went into lockdown, all events were cancelled and the university switched to online teaching, we barricaded ourselves in our dorm. Luckily, the foreigners' dorm is of much better quality than what you may have seen in pictures or on Youtube. We only shared rooms with two students each (rather than the usual 3 or 4), had our own fridge and microwave in our room, and enjoyed a washing service for the provided bed-linen. Our self-chosen isolation soon turned to become involuntary through, as for the rest of the semester, students were only allowed to leave the dorm for 2 hours at a time to get groceries, under threat of being expelled from the dormitory. If you're a westerner, it might come as a surprise that your landlord is able to lock you in, but don't bother to google what's "civil liberties" in Russian... (it's "основные права")

In conclusion, a semester in Saint-Petersburg is highly advisable (or, even better, do the whole triple degree!). The bureaucracy and administration can be nerve-wrecking, but Russia is not for the weak, right? The city, with its beauty, its sights and culture and its pulsating vibe sure makes up for it. Whether you're into opera or techno, you'll never be bored (unless the next pandemic hits).

Hannover

With corona restrictions still in place and some of us needing visas, it took some time until our fellowship was fully reunited in Hannover. Luckily, we all found places to stay in the dormitories, for which you should apply a year in advance (Hannover, like most German cities, only has dorms for a very small fraction of its students). If you didn't get an offer until here, the very helpful study coordinator at Leibniz University may be of assistance.

Classes throughout the semester were online, with only one lab day in presence. Unlike in Finland and Russia, we were not sharing lectures with students from other programmes, only the occasional Erasmus student popped in. Therefore, our classes usually only had between 4 and 7 students, which gave a very intimate learning environment even during distance education. As typical for Germany, every class ends with a final exam which determines your grade. As we were so few, all our exams were held orally. Classes are more leaning towards the electrical side of energy technology, unlike in the previous semesters, where we were busy designing turbines and learning about combustion and

steam cycles. Overall, the teaching quality was excellent and we had close contact to teachers. However, I was missing the more project centred education style that I saw in Finland.

Student life is organised more privately, meaning there are less public student events and a "Fachschaftsrat" is no replacement for a guild. Still, there are student events, for example organised by the ESN or Fachschaftsrat, especially during orientation days (Ersie Woche), which, like at every school, shouldn't be missed! They are great fun and many friendships for the rest of the semester are formed here. Another great opportunity to connect with people is the ESN "Stammtisch", currently held every Wednesday.

In conclusion...

... the triple degree program is a great choice for people who want to squeeze as much international experience into two years as possible, and are not afraid of a fresh start every half year. Luckily, you don't travel alone through. The program offers a broad education in the field of energy conversion, ranging from turbine design to electric power systems, rather than specialising in a specific focus area. This stands in contrast to the conventional energy technology degree in Hannover, which goes deep into the electrical sphere, or the one in Lappeenranta, which focuses on the mechanical side and makes you an expert in combustion and fluid machinery. For me, this broad approach was the right choice. It was also a great experience to see the diverse teaching styles in three different countries. However, a few more elective choices Petersburg and Hannover would give the opportunity to set your own focal points.³ As we were only the second generation in this program however, more choices might be yet to come. I would also wish for a closer coordination between universities to avoid some organisational chaos and make sure that classes logically build on each other.

Altogether, the program was an extremely fun, rewarding and educational experience and is advisable for every engineer who's looking for a broad view both culturally and technically.

³ In Lpr, 3 core subjects were mandatory, another 3 electives were chosen out of a catalogue of 7. In Saint Pe, no options were given, and in Hannover, 8 classes were offered, from which we elected 6.