

**Exchange university**

École Polytechnique Fédérale de Lausanne

Degree programme

Master's Systems, Control and Robotics

Travel report of exchange studies

Before departure

I selected École Polytechnique Fédérale de Lausanne (EPFL) primarily for exposure to state of the art research facilities and acquaintance with world-renowned professors. EPFL is one of the leading universities in engineering and science and I firmly believed that I will get a well-rounded education during my exchange term. Additionally, I was particularly interested in the ongoing work in Legged Robotics under **Auke Ijspeert**, which is not present at KTH.

Regarding preparation, application for the visa process was straight forward. After receiving the admit letter, I applied for 'Application for a long-stay visa (visa D)' for 5 months. The application also required financial proof for the duration of stay, a motivation letter, resume and transcripts. Apart from the visa application, it was advised to arrange for accommodation before arrival, details of which are presented in the accommodation section.

Upon arrival

I arrived at Lausanne a week before the start of the studies, to get familiar with the travel to and from my accommodation and settle in. EPFL is part of an amazing group called ESN, which is a student association for Erasmus & International exchange students. They have a welcome week program <https://epfl.esn.ch/welcome-week>.

From the official aspect, I had an information session one especially for exchange students where important information regarding course registration, events and schedule are provided. Following this, we had a welcome event for all incoming students.



Fig: Welcome event at EPFL

In addition to this, I was fortunate to experience EPFL Open Days (Portes Ouvertes) on the occasion of the 50th anniversary during the arrival weekend, showcasing the latest technological advancement from all section and departments. It was quite fascinating and motivating to interact with the researchers and developers.



Fig: EPFL Open Days

Financials

The exchange program with EPFL does not come under the Erasmus program, therefore does not entail the Erasmus scholarship. However, they have a Swiss-European Mobility Program where I received a total amount of 1900 CHF for the entire duration of stay. However, staying in Lausanne is slightly more expensive than Stockholm. My major expenses were accommodation and travel expenses. With food and other expenses, I spent roughly 750 CHF/month. Therefore, with the benefit of SEMP scholarship, resulting in a similar cost to staying in Stockholm. I would recommend applying for cheaper accommodation and closer to the university.

Accommodation

I contacted several private accommodations listed in a database provided in the university website <https://www.epfl.ch/campus/services/housing/en/> before arrival, which was quite convenient.



Fig: My accommodation in Croy

I stayed with other EPFL and UNIL students slightly far from the Lausanne. However, I was not aware of the travel arrangement in Lausanne, where the monthly ticket depends on the zones, one travels, resulting in a substantial monthly ticket.

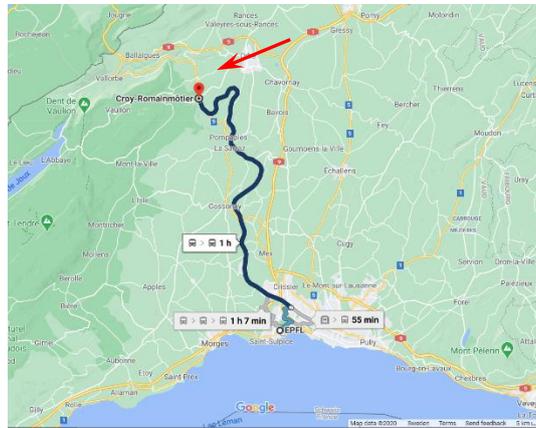


Fig: Distance between my accommodation (red arrow) and EPFL

University and studies

The university experience was fantastic. It had a few more departments and sub-division than KTH. I was part of the Microengineering and took 6 courses from Robotics master program. The biggest difference in studies was the semester system compared to the period system at KTH. I was quite comfortable with the KTH period allowing me to focus on two subjects, whereas at EPFL I had to follow all the 6 courses simultaneously.

I felt the schedule was slightly more intensive than KTH. Each subject had a class and tutorial session every week and I got time only at the weekend to catch up and clarify the contents taught in the week. Overall, the subject matter was covered in much more depth, which I enjoyed thoroughly. The examination was relatively easier than KTH, and usually lasted for 2-3 hours compared to 5 hrs !! I faired decently but would have done better if I was focusing on two/three subjects.

Courses

I took courses – *Legged Robotics*, *Applied Machine Learning*, *Model Predictive Control*, *Intelligent Agents*, *French* and a *Project Course in Automatic Control*. Each course had ups and downs. *Legged Robotics* was quite fascinating, however, was expecting a bit more on theoretical side control and dynamics. *Model Predictive Control* was the best course, with crystal clear lectures by **Jones Colin**. However, would have benefited more had I taken an optimization course beforehand. *Applied Machine Learning* was well-rounded course gradually building the concepts, quite similar to that of KTH. *Intelligent Agents* was slightly out of my domain and involved concepts from theoretical computer science like Game Theory. However, I believe it can be valuable in a few robotic applications as well. The *French* course was quite easy to follow and was a fun session with other international students. Finally, the *Project Course* involved system identification and control of underactuated hovercraft, which was challenging in practical implementation.

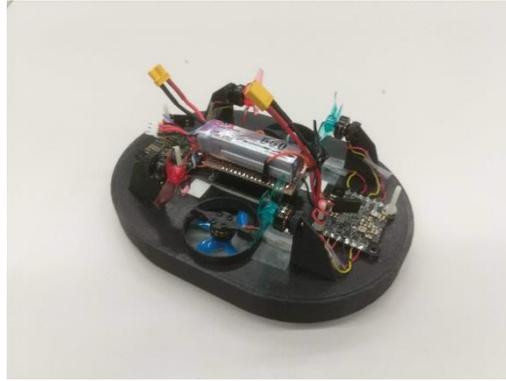


Fig: Developed prototype of hovercraft for Project course

Overall, I am quite satisfied with the subject material and exchange studies.

City and country

Lausanne and nearby parts are scenic with fantastic weather even during winter. Compared to Stockholm, local people very rarely speak English, so having basic French knowledge is a must to have a conversation. The course schedule did not give enough free time to explore many places, however, I did explore quite a bit of Lausanne and took a long weekend trip to the famous tourist destination of Switzerland – Lucerne, Interlaken and Grindelwald.



Fig: Scenic Destination of Interlaken, Switzerland

Leisure and social activities

As mentioned, I stayed near a quite far from the main Lausanne in Croy, therefore the social activity was slightly constrained and could not take part in occasional ESN activities. The area near my accommodation had rustic charm, with good places to hike and explore which became my weekend leisure activity.



Fig: Rustic scenery and hiking place of Croy, Switzerland

Occasionally, I did go out with my course mates or have a potluck. Also, biweekly I had a traditional Swiss dinner prepared by my landlady and tried to have a broken conversation in French with my flatmates.



Fig: International friends and social activity in Switzerland

Other recommendations and observations

The exchange experience to EPFL was amazing and would recommend to upcoming students. Regarding recommendation, it will be better to start learning French and try to find accommodation closer to the University. The studies at EPFL will be intensive compared to KTH, so be prepared for putting in the extra effort to make the best out of the courses.