EPFL – Internships
Mechanical Engineering

- General context
- Administrative procedures
The internship: Excellent Opportunity !!!

- **Students**
  - A Great incentive to ask oneself the right questions!
  - Familiarize with working life
  - Immerse into Industry practice
  - Future Hiring opportunity

- **Companies**
  - Benefit from highly qualified students
  - A new insight on current issues, innovate!
  - Evaluate future employees

- **EPFL**
  - A direct link to industry
  - A new platform to start collaborations on the research level
  - Feedback from industry to improve the education of our students
STI Internship Coordination

CDM
Management of technology

SV
Lifesciences

ENAC
Architecture

STI
Engineering

SB
Basic Sciences

I&C
Informatics et Communication

CDH
College of Humanities

Microengineering + Robotics
165 Ma1 students
187 Ma3 students

Material Sciences
44 Ma1 students
36 Ma3 students

Mechanical Engineering
106 Ma1 students
150 Ma3 students

Electrical Engineering + Energy Science and technology
81 Ma1 students
101 Ma3 students
The Internship in industry is a mandatory step of the Master degree

Possible formats to validate this obligation

Models:

- **STAP**: Detached internship but credited with the master’s project
- **PDME**: Master project in industry

<table>
<thead>
<tr>
<th>Models</th>
<th>Duration</th>
<th>Periods</th>
<th>Contact information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical and electronics engineering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAP</td>
<td>Min. 8 weeks</td>
<td>After bachelor, after MA2 or MA3</td>
<td>Web Site EL</td>
</tr>
<tr>
<td>SCS (30 credits)</td>
<td>4-6 months</td>
<td>After MA2</td>
<td></td>
</tr>
<tr>
<td>PDME</td>
<td>25 weeks</td>
<td>During the master project</td>
<td></td>
</tr>
<tr>
<td><strong>Energy Science and Technology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAP</td>
<td>Min. 8 weeks</td>
<td>After bachelor, after MA2 or MA3</td>
<td>Web Site GM</td>
</tr>
<tr>
<td>PDME</td>
<td>25 weeks</td>
<td>During the master project</td>
<td></td>
</tr>
<tr>
<td><strong>Materials science and engineering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAP</td>
<td>Min. 8 weeks</td>
<td>After bachelor, after MA2 or MA3</td>
<td>Web Site MX</td>
</tr>
<tr>
<td>PDME</td>
<td>25 weeks</td>
<td>During the master project</td>
<td></td>
</tr>
<tr>
<td><strong>Mechanical engineering</strong></td>
<td></td>
<td></td>
<td>Web Site GM</td>
</tr>
<tr>
<td>STAP</td>
<td>Min. 8 weeks</td>
<td>After bachelor, after MA2 or MA3</td>
<td></td>
</tr>
<tr>
<td>PDME</td>
<td>25 weeks</td>
<td>During the master project</td>
<td></td>
</tr>
<tr>
<td><strong>Materials science and engineering</strong></td>
<td></td>
<td></td>
<td>Web Site MX</td>
</tr>
<tr>
<td>STAP</td>
<td>Min. 8 weeks</td>
<td>After bachelor, after MA2 or MA3</td>
<td></td>
</tr>
<tr>
<td>PDME</td>
<td>25 weeks</td>
<td>During the master project</td>
<td></td>
</tr>
<tr>
<td><strong>Microengineering and robotics</strong></td>
<td></td>
<td></td>
<td>Web Site MT</td>
</tr>
<tr>
<td>STAP</td>
<td>Min. 8 weeks</td>
<td>After bachelor, after MA2 or MA3</td>
<td></td>
</tr>
<tr>
<td>PDME</td>
<td>25 weeks</td>
<td>During the Master project</td>
<td></td>
</tr>
</tbody>
</table>
Mandatory Internship or Master Project in Industry

- **Internship**
  - Minimum duration of 2 month, up to 6 months
  - Immersion into industry
  - Familiarize with company processes
  - Acquire specific competences
  - Apply transversal skills
  - Evaluation report by student and industry supervisor

- **Master project in industry**
  - A research project in the company
  - Student applies the competences acquired during his master
  - Supervised by a Professor from his section
  - Written report and oral defense
  - Monthly feedback to Professor
  - 25 week duration (+1 week vacation)
When to place your internship / Master thesis?

- **Summer**
  - Internship: 8 weeks
  - Master cycle: 60 credits

- **Fall**
  - Minor/specialization: 30 credits

- **Spring**
  - Internship: 8 weeks

- **Summer**
  - PDM in academia: 17 weeks, 30 credits

- **Fall**
  - Minor/specialization: 30 credits

- **Spring**
  - PDM in academia: 17 weeks, 30 credits
  - Internship: 8 weeks

- **Summer**
  - PDM in academia: 25 weeks, 30 credits
  - Master project in Industry: 25 weeks, 30 credits

**PDM in academia in foreign Universities: 25 weeks**
When to place your internship / Master thesis?

- Summer: Master cycle (60 credits)
- Fall: Internship (6 months)
- Spring: Minor/spec (30 credits)
- Summer: PDM in academia (17 weeks, 30 credits)
- Fall: PDM in academia in foreign Universities: 25 weeks
When to place your internship / Master thesis?

- **Master cycle**
  - 60 credits

- **Minor/spec**
  - 30 credits

- **Internship**
  - 6 months

- **PDM in academia**
  - 17 weeks
  - 30 credits

PDM in academia in foreign Universities: 25 weeks
When to place your internship / Master thesis?

- Summer: Master cycle (60 credits)
- Fall: Minor/specialization (30 credits)
- Spring: Internship (6 months)
- Summer: Master project in Industry (25 weeks)
- Fall: PDM in academia in foreign Universities: 25 weeks
Important rules

Maximum duration of studies

The maximum duration of course semesters

- Maximum amount of study semesters allowed: 6
- Extended by one semester if the internship is done during a semester

The Master’s project must be successfully completed within two semesters of the successful completion of the Master’s cycle (including the industry internship). Should the Master’s project (of a duration of 25 weeks and in industry) serve to validate the engineer’s internship, the deadline is extended to three semesters.

Internship in parallel to taking courses

Performing the industry internship in parallel to taking master courses is generally not encouraged. Exceptions can be granted by the section under the following conditions:

- The student can physically follow the registered courses and attend the exam session
- The maximum amount of credits does not exceed 5 ECTS
- The company accepts that the student takes courses

Failed Master thesis in industry

Students who fail their master thesis in industry during the first attempt are asked to perform their 2nd attempt in a lab at EPFL
Internships between bachelor and master

- If you have finished your bachelor and would like to take an interim year to do your mandatory industry internship for your master, **the following academic rules** and FRAC status’ apply:

**Option 1**
- Internship up to 6 months: FRAC “internship”
- Registered in Ba5
- Start master FRAC “present”
- Registered in Ma2
- No master start for motivated reasons FRAC “on leave”
- Semester does not count

**Option 2**
- Internship up to 6 months: FRAC “internship”
- Registered in Ba5
- No master start FRAC “on leave”
- Semester does not count
- Start master FRAC “present”

**Option 3**
- Start master FRAC “present”
- Registered in Ma1
- Internship up to 6 months: FRAC “internship”
- Registered in Ba6
- Start 2nd master semester FRAC “present”

**Option 4**
- No master start for motivated reasons FRAC “on leave”
- Internship up to 6 months: FRAC “internship”
- Registered in Ba6
- Start 2nd master semester FRAC “present”

In option 4 the fall semester will be accounted to your master studies, except if you are doing your army or civil service.
What is considered «Industry»?

- Every company or start-up offering a workplace outside of an EPFL laboratory (EPFL’s Innovation Parc included)
- Every Research Organisation not delivering academic credits
- Affiliation of independent research labs with academic institutions can lead to a specific decision by the section
How much salary?

- There is no official regulation in Switzerland to pay a monthly salary for an internship.
- Salaries are mostly ruled by offer and demand.
- Often the salary is dependent of the company’s size and status:
  - Typical salary in large companies: ~3'000 SFr
  - Typical salary in start-ups and SMEs: 1’500 SFr
  - Typical salary in the European Union: 600 - 900 Euros
- EPFL recommends a typical monthly salary around 2’000 SFr. However, there is no obligation of the company to comply with this.

- In Case of a Master Project in Industry, remuneration can be handled more freely (no monthly salary, compensations, bonus at the end, …)
Validation of previous internships and industrial experiences

Internships done during the bachelor degree will not exempt you from the mandatory internship. Exemptions can be granted by the section in the following cases:

- Internships done after your bachelor degree
  - The internship duration must be at least 8 weeks
  - The ending should not be further than 1 year apart from your master beginning date.
  - A work certificate or an evaluation report or a has to be presented to the section deputy.

- Industry employment at 100% occupation of at least 1 year related to the field of the future master studies
  - A valid work certificate has to presented to the section deputy.
Your start-up as substitute to a master thesis in industry?

- A few students will be able to undertake their master projects in industry, at the EPFL Innovation Park to work for their own startup.

- Projects will be co-supervised by a mentor from the Vice Presidency for Innovation and a professor from the section

- This opportunity will be offered to 3-4 projects per year. Students will have to go through a selection process, start by contacting pdm-eip@epfl.ch.

- More information about the program could be found here:
  - https://www.epfl.ch/innovation/startup/students/master-project-in-your-startup/
Internships outside Switzerland

- As a precaution, EPFL students must comply with the following measures on foreign travel for the fall 2021 semester:
  - Travel abroad by students for internships remains prohibited:
    - In countries or regions that the DFAE discourages
    - In countries or regions mentioned on the OFSP list
    - Map of authorized countries
  - All study-related travel abroad (Master’s projects, exchanges, internships, etc.) will take place under the student’s personal responsibility.
  - EPFL will not provide foreign assistance to students who fail to comply with these recommendations.
  - No additional contributions to travel costs will be granted beyond the measures and grants already in place.
  - Students must comply with all health and safety rules in effect in their country of destination as well as at the partner company or university.
  - When students return to Switzerland, TravelCheck recommendations must be followed.

Announce your stay abroad to EPFL Safety domain

- [ ] http://securite.epfl.ch/voyages
- [ ] Comply with updated COVID-19 recommendations

Safety during business and academic travels

According to legal bases, employers have a duty towards their employees to inform, prevent, control and intervene. To fulfill these legal requirements, EPFL relies on a competent partner, renowned for their skills in assisting organizations in the area of risks linked to business and academic travel abroad: International SOS. Thanks to their services, employees and students benefit from medical and security assistance in the whole world, as from June 1, 2014.
Work authorization

(not required for Master Projects without a monthly remuneration)

- The federal council allows foreign students of Swiss academic institution to perform a mandatory internship during their studies: [https://www.admin.ch/opc/fr/classified-compilation/20070993/index.html#a39](https://www.admin.ch/opc/fr/classified-compilation/20070993/index.html#a39)

- Students with Non-EU/EFTA passports require a valid **work authorization** to do their internship or Master project with monthly salary in Switzerland or EU countries.

- EU students performing a 3-6 month internship have to be simply **announced** at the cantonal office.

- It is the company’s responsibility to request this authorization at the proper working office of their canton/country ([Link](https://www.admin.ch/opc/fr/classified-compilation/20070993/index.html#a39) to obtain a mandatory internship certificate).

- It requires up to 8 weeks to obtain this authorization from the cantonal offices.

- We recommend that students from non-EU/EFTA countries inform the companies in their motivation letter of these regulations.

Example: “As I’m a non-EU/EFTA resident, your company would be required to ask for a temporary work authorization. Please be advised that the federal council allows foreign students of Swiss academic institution to perform a mandatory internship during their studies: [https://www.admin.ch/opc/fr/classified-compilation/20070993/index.html#a39](https://www.admin.ch/opc/fr/classified-compilation/20070993/index.html#a39). As I will stay registered at EPFL during this internship, and since this internship is a mandatory part of my Master education, the delivery of this document does not fall into the quota limitation of each canton and is therefore straightforward”.
EPFL – Internships
Mechanical Engineering

- Administrative procedures
How can you find an internship?

- It is the student’s responsibility to find an appropriate internship to validate his Master degree.
- No responsibility can be taken from EPFL side if no internship has been found by the student.
- The student can find an internship position by himself, but the subject needs to be approved by the section deputy.
- EPFL offers an internship portal on which students can find an alternative to their personal quest for finding an internship.
- Access to the EPFL portal is given through the student’s IS-Academia account.
Sustainable Internships

How to identify them?
Company submissions are listed on the internship portal once validated by each section. Internships with a sustainability label will be identifiable with the following logo:
Sustainable Internships

Sustainable internships extend EPFL’s sustainability strategy to its partnership with companies. This program meets a growing demand from our master students.

**Sustainability categories**
Companies interested in receiving the label must explain how the main purpose of the technology (product, process, service) developed during the internship has a direct impact on sustainability.

The criteria are based on the [United Nations’ Sustainable Development Goals (SDG)](https://www.un.org/sustainabledevelopment/). EPFL’s [Tech4Impact](https://www.epfl.ch) unit is in charge of evaluating the proposals and attributing the sustainability label.
Sustainable Internships

Evaluation report
The evaluation process of the internship is similar to a regular internship but the student is asked to write a half-page report to comment if the sustainability goals have been reached. This report does not influence the validation of the internship for the master curriculum.

Promote sustainable internship opportunities!
Students are encouraged to identify sustainable internship opportunities within companies that meet the criteria listed above. The proposal of the internship subject is made by the company through the EPFL internship portal.
Who are we?
Engineers of tomorrow, we interest ourselves in the cooperation for a sustainable development around the world

Contact us
Write to us at
stages.idm@listes.epfl.ch

We offer you scholarships...
- That covers travel and visa costs
- For an internship
  • In the field of development
  • For a sustainable project
  • Of 8 weeks minimum

Go check our available offers on our webpage!
http://idm.epfl.ch/stages/

Every internship found through « Ingénieur.e.s du Monde » needs to be approved by your section. Please contact the section deputy as soon as you have found an opportunity
Le Forum EPFL est de retour !

du 4 au 8 octobre 2021

au SwissTech Convention Center
EPFL Alumni network

- EPFL students have access to the Alumni network
  - Website: alumni.epfl.ch
  - Pocketcampus app
Dear Master Student,
Dear PhD Candidate,

**Pictet Group**, a private bank based in Geneva with global presence (more here [www.group.pictet](http://www.group.pictet)) invites you to the workshop:

"Data Analytics @ Pictet with apero"

to be held at EPFL
on Wednesday, September 25, 2019
from 17:15 to 19:00
in room BCA10
followed by an apero

[Link to the Pictet Group invitation](#)

During this workshop, you will have the opportunity to learn more about one of the following topics, please choose the one you prefer:

1. Risk management: how data analytics can help prevent risk? A playground with a fraud detection sample.
2. Asset management: how data are applied to impact investing?
3. Client relationships: how data can be a key game-changer in wealth management?

To apply for this fascinating workshop, please send your CV to cc@epfl.ch stating "Pictet Workshop" in the subject line before September 17, 2019.

*Please mention in the email your preferred topic, in order of preference.*

The participants will be enrolled on a first-come, first served basis.

[https://www.epfl.ch/about/recruiting/career-center](https://www.epfl.ch/about/recruiting/career-center/)
Linked’In

Training Manager? - Make training easier and faster with Step-by-Step digital tutorials.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilles Pillonel</td>
<td>R&amp;D Project Manager et MOBIST</td>
</tr>
<tr>
<td>Adi Vardi</td>
<td>MSc Microtechnology EPFL, spécialisation en Robotique et Systèmes Autonomes</td>
</tr>
<tr>
<td>Adrian Troemel</td>
<td>Candidat MSc à KU Leuven</td>
</tr>
<tr>
<td>Adrien Briod</td>
<td>Co-founder &amp; CTO of Hyablity SA</td>
</tr>
<tr>
<td>Adrien Bérard</td>
<td>ring project director chez Savoir-faire Linux</td>
</tr>
<tr>
<td>Adrien Chubbey</td>
<td>Area Sales Manager chez Fischer Connectors</td>
</tr>
</tbody>
</table>
Other opportunities for finding an internship

- Personal contacts, family, friends
- Topic related agencies and organizations
- International platforms
- Company websites
- EPFL Professors, especially for master projects in Industry

Every Internship found outside the IS-A portal has to be approved by your section. Please send a short but detailed description to the section deputy as soon as you have found an opportunity.
Fill out the form!

Mechanical engineering students are asked to fill out the following form to validate internships found outside the IS-A portal.
How does the internship portal work?

- Browse through the internship offers of your Master program
- Apply for a position by uploading 2 mandatory documents:
  - CV
  - Motivation letter
- Applications are sent on a weekly basis to the companies (every Monday 14h00)
- Wait for the company to make its selection process (up to several weeks)
- If no response after 2 months, contact your internship coordinator
- You will be contacted by the company if your application was successful
  (Most selection processes involve an interview and several e-mail exchanges)
- You MUST accept only one offer and reject all the others within the next 3 working days.
  - No withdrawal from the accepted position!
  - Kindly notify all other companies you had privileged contact with

- Do not use the portal for personal internship search
- Apply always through the portal for mandatory internship
End of January: Mailing to Industry
Mid-February
June: End of Spring Semester
August 1st: Possible 1st starting date

Internship 2-6 Months
PDMe 25 weeks

Student applications sent to Industry every Monday 2:00 PM
August 1st – September 30th

Attribution process in the spring semester
Attribution process in the fall semester

- Sept. 1st: Mailing to Industry
- End of September
- December: End of Fall Semester
- Beginning of Spring Semester: Possible 1st starting date

- Mid-February – March 1st: Internship 2-6 Months
- PDMe 25 weeks
- Student applications sent to Industry every Monday 2:00 PM
Internship attribution, possible scenarii

**Internship 1**: Refused

**Internship 2**: In progress

**Internship 3**: Refused

**Internship 4**: In progress

**Internship 5**: In progress

Within 3 days

- **Accept**
- **Refuse**

**Master thesis**: Don’t accept a position without academic supervisor
Some advice to prepare your application documents

- **2 important documents**
  - Motivation letter
  - Curriculum vitae (CV)

  The criteria for interview selection by the company is mostly based in these documents. Reference letters can be added as well. Your motivation letter should specifically address the company and the proposed subject.

- **Language**: you should use the language of the offer

- **To be avoided:**
  - No motivation letter
  - Copy-paste errors
  - Wrong addressing
Most companies would like to meet the students for an interview prior to making their final choice

- Be prepared for the interview and demonstrate a professional attitude
- Non EU/EFTA students: Inform the company about the required work authorization
- If the living allowance is mentioned in the description, do not bargain. If not mentioned, inquire for it.
- Follow up: After the interview, write a short e-mail as feedback of your interview to the company andCc the internship coordinator.

For Master projects: Do not accept a position without having confirmed the eligibility of the project and settled the details with the academic supervisor.
Prepare your internship campaign!

EPFL proposes 5 modules of 1h45:

This fall semester

1. Understanding and convincing recruiters
2. The CV sections
3. The motivation letter
4. The Job interview
5. Communication and organization at work

Each course will be given in English and in French
Information and mandatory registration here: https://epflcareer.ch/en/
Update your FRAC

In case your internship is done during an academic semester, make sure to update your FRAC according to your status:

- Semester: (choose the right one: MA1; MA2; MA3)
- Status: Internship (authorized by the section)
- Mention in the comments « Detached internship but credited with master Project (STAP) »

If you take courses in parallel to your internship, your FRAC status should be «present»
The internship agreement (French version) specifies the commitments and responsibilities of EPFL, the company and the internship student. This agreement must be signed for all engineering internships. No other tripartite agreement involving EPFL will be signed by the section. Alternative contract proposed by the company and signed only by the student are acceptable in some cases, but the students must carefully read and comply with the content (IP issues, confidentiality, insurances and especially non-competition clauses). The company must accept to fill out the EPFL evaluation report at the end.
Mandatory: Register internships found on your own

- Submit a short but detailed description of your internship to your section’s deputy,
- Once you have signed the tripartite internship agreement, enter your project details on the internship portal by creating a new internship proposal, and upload a pdf copy of the agreement.

<table>
<thead>
<tr>
<th>Action</th>
<th>Internship</th>
<th>Company</th>
<th>Assignment location</th>
<th>Start-Sept (P1)</th>
<th>End-Sept (P2)</th>
<th>Start-Sept (P3)</th>
<th>Internship number</th>
<th>Format</th>
<th>Registered</th>
<th>Places</th>
<th>Prof</th>
<th>Creation date of the internship</th>
</tr>
</thead>
<tbody>
<tr>
<td>🛠️ Epidural Anaesthetics, 1st, and Mobiles</td>
<td>Schneider Auflage AG</td>
<td>Zürich</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>19394</td>
<td>Internship</td>
<td>0</td>
<td>1</td>
<td>20.09.2017</td>
<td></td>
</tr>
<tr>
<td>🛠️ Temperature mapping and monitoring of a complex device</td>
<td>CERN - European Organization for Nuclear Research</td>
<td>CERN, Geneva, Switzerland</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>19000</td>
<td>Internship</td>
<td>0</td>
<td>1</td>
<td>20.09.2017</td>
<td></td>
</tr>
</tbody>
</table>
Anticipate!

- A change of residence or relocation might be necessary
- Setting up a Master thesis in industry takes several weeks/months

- Time consuming formalities might be required:
  - Confirm an internship
  - Visa, Work authorization and Residence permit (typically 4-8 weeks)
  - Collection of the signatures of the internship agreement
  - New validation of your passport
  - ...

- It is your responsibility to settle these formalities prior to the Internship beginning
During and after the internship

- In case of problems (accident or illness, personal problems, conflict with supervisors, ...), contact urgently the Section deputy and the STI Internships coordinator.

- No written report of the student is requested by EPFL (except for credited internships in EE), but can be requested by the company.

- To validate your internship, an evaluation form has to be filled out by the student and the supervisor in the company (sent out 2 weeks prior to ending).
# Internship evaluations

Company evaluation of the student (Years 2015-2020, 1400 STI students)

<table>
<thead>
<tr>
<th>Category</th>
<th>Overall Evaluation</th>
<th>Excellent</th>
<th>Good</th>
<th>Sufficient</th>
<th>Insufficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence</td>
<td></td>
<td>928</td>
<td>442</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Ability to resolve complex problems</td>
<td></td>
<td>739</td>
<td>545</td>
<td>168</td>
<td>18</td>
</tr>
<tr>
<td>Mastery of domain-specific methodologies</td>
<td></td>
<td>726</td>
<td>495</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>Ability to present and defend her/his own ideas</td>
<td></td>
<td>729</td>
<td>556</td>
<td>196</td>
<td>3</td>
</tr>
<tr>
<td>Interpersonal skills and engagement, including in a multicultural...</td>
<td></td>
<td>937</td>
<td>411</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Written communication (clarity, reasoning, self-confidence)</td>
<td></td>
<td>924</td>
<td>626</td>
<td>142</td>
<td>9</td>
</tr>
<tr>
<td>Written communication (structure, clarity, coherence of reasoning)</td>
<td></td>
<td>607</td>
<td>623</td>
<td>105</td>
<td>9</td>
</tr>
<tr>
<td>Integration in the professional world</td>
<td></td>
<td>853</td>
<td>484</td>
<td>495</td>
<td></td>
</tr>
<tr>
<td>Quality of the work delivered</td>
<td></td>
<td>928</td>
<td>368</td>
<td>474</td>
<td>12</td>
</tr>
<tr>
<td>Capacity to work in teams</td>
<td></td>
<td>1052</td>
<td>279</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Respect for the organizations procedures/ rules and for their...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of scientific and technical knowledge</td>
<td></td>
<td>696</td>
<td>560</td>
<td>99</td>
<td>18</td>
</tr>
<tr>
<td>Mastery of domain-specific methodologies</td>
<td></td>
<td>537</td>
<td>636</td>
<td>849</td>
<td></td>
</tr>
<tr>
<td>Ability to resolve complex problems</td>
<td></td>
<td>623</td>
<td>642</td>
<td>101</td>
<td>12</td>
</tr>
<tr>
<td>Technical skills and knowledge</td>
<td></td>
<td>633</td>
<td>521</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Written communication (structure, clarity, coherence of reasoning)</td>
<td></td>
<td>683</td>
<td>618</td>
<td>595</td>
<td></td>
</tr>
<tr>
<td>Oral communication (clarity, reasoning, self-confidence)</td>
<td></td>
<td>774</td>
<td>536</td>
<td>859</td>
<td></td>
</tr>
<tr>
<td>Oral communication (structure, clarity, coherence of reasoning)</td>
<td></td>
<td>833</td>
<td>521</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Quality of the work delivered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to work in teams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect for the organizations procedures/ rules and for their...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mandatory Steps for a 2-6 month internship

- Find an internship position and in case you have found it by yourself, without using the IS-A portal, have the subject validated by your section deputy.
- Inform the STI coordinator that you have found your internship.
- Cancel all ongoing applications by gently notifying the companies. This step is extremely important to keep a good relationship with future employers.
- Transmit the EPFL internship agreement to the employer and have it filled out and signed by the employer and the section deputy.
- Transmit a copy of the agreement to the section secretariat.
- If you are a non-swiss/EU citizen, ask the company to request a work authorization for the duration of the internship. More information here. (Link to obtain a mandatory internship certificate.)
- Once all the details of your internship have been settled, enter or edit the details of your internship on the IS-A internship portal. Upload a copy of the signed internship agreement.
- If your internship takes place during an academic semester, make sure to update your FRAC.
- At the end of the internship, fill out the evaluation report that will be sent to you by e-mail. The evaluation procedure starts 2 weeks prior to the official ending of the internship. Both the student and the supervisor will fill out an evaluation report.
Best practice to set up a master thesis in industry

Companies get in touch with research labs to propose master thesis topics

Companies can hire students for internship proposals and accept the format change to master thesis projects without involving a Professor

Students apply for internships on the IS-A portal and have it validated as master thesis projects by the company without involving the supervising professor

Students contact professors of their section to ask for existing industrial projects

Professors and teachers propose master thesis projects with known partner companies

Professors and teachers evaluate the academic content of proposals from companies before accepting it as master thesis projects

Professors and teachers evaluate the academic content of student proposals without interacting with the host company

Compatibility with academic calendar

IP owner(s)

Confidentiality

Eligibility of candidate for master thesis
Ideal Scenario for Master Projects in industry

Company has an idea for a master thesis project

Company discusses the project with a Professor

Company submits the proposal on the EPFL portal

Student applies for the project through the portal and gets accepted by the company

Project starts under co-supervision by company and professor
### Master thesis in industry – offers on the internship portal

<table>
<thead>
<tr>
<th>Action</th>
<th>Stage</th>
<th>Entreprise mère</th>
<th>Localisation du stage</th>
<th>Févr-Sept (P1)</th>
<th>Juil-Fév (P2)</th>
<th>Juil-Sept (P3)</th>
<th>N° du stage</th>
<th>Format</th>
<th>Inscrits</th>
<th>Places</th>
<th>Prof</th>
<th>Date de création du stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amélioration qualité image satellités par contrôle fin de la ligne de visée</td>
<td>Thales Alenia Space</td>
<td>Cannes, France</td>
<td>✓</td>
<td>18976</td>
<td></td>
<td></td>
<td>Stage</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td>14.09.2017</td>
</tr>
<tr>
<td>Experimental Physics Internship</td>
<td>Distran GmbH</td>
<td>Zurich</td>
<td>✓</td>
<td>18973</td>
<td></td>
<td></td>
<td>PDM ou Stage</td>
<td>0</td>
<td>1</td>
<td>à trouver (si PDM)</td>
<td>14.09.2017</td>
<td></td>
</tr>
<tr>
<td>Transfer learning for field and crop adaptation in agriculture applications</td>
<td>ecoRobotix</td>
<td>Yverdon-les-Bains</td>
<td>✓</td>
<td>18972</td>
<td></td>
<td></td>
<td>PDM ou Stage</td>
<td>0</td>
<td>1</td>
<td>à trouver (si PDM)</td>
<td>14.09.2017</td>
<td></td>
</tr>
<tr>
<td>Product Engineer</td>
<td>Infusion Technologies France</td>
<td>Aix en Provence</td>
<td>✓</td>
<td>19067</td>
<td></td>
<td></td>
<td>Stage</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td>14.09.2017</td>
</tr>
<tr>
<td>Déploiement d’un système de suivi pour un site sensible</td>
<td>Easy Life</td>
<td>Carouge</td>
<td>✓</td>
<td>19062</td>
<td></td>
<td></td>
<td>Stage</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td>13.09.2017</td>
</tr>
<tr>
<td>Thermal effect and Compensation in high precision states</td>
<td>Elek S.A.</td>
<td>Biennne</td>
<td>✓ ✓</td>
<td>18953</td>
<td></td>
<td></td>
<td>Stage</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td>13.09.2017</td>
</tr>
<tr>
<td>Intern Manufacturing</td>
<td>Stryker Trauma AG</td>
<td>Salzach (SO)</td>
<td>✓</td>
<td>18934</td>
<td></td>
<td></td>
<td>Stage</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td>12.09.2017</td>
</tr>
<tr>
<td>Modélisation d’un processus de laminage</td>
<td>Constellium Valais SA</td>
<td>Sierre</td>
<td>✓</td>
<td>18933</td>
<td></td>
<td></td>
<td>Stage</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td>12.09.2017</td>
</tr>
<tr>
<td>Hybrid PET/MR Imaging guided radiation therapy treatment planning</td>
<td>Hôpitaux Universitaires de Genève</td>
<td>HUG Genève</td>
<td>✓ ✓</td>
<td>18930</td>
<td></td>
<td></td>
<td>PDM coordonné</td>
<td>0</td>
<td>2</td>
<td>Prof. Thiran Jean-Philippe</td>
<td>12.09.2017</td>
<td></td>
</tr>
<tr>
<td>Various internship positions in Motion analysis</td>
<td>Gait Up</td>
<td>Renens</td>
<td>✓</td>
<td>18922</td>
<td></td>
<td></td>
<td>Stage</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td>12.09.2017</td>
</tr>
<tr>
<td>Various internship positions in Motion analysis</td>
<td>Gait Up</td>
<td>Renens</td>
<td>✓ ✓</td>
<td>18920</td>
<td></td>
<td></td>
<td>PDM coordonné</td>
<td>0</td>
<td>2</td>
<td>Prof. Aminian Kamilar</td>
<td>12.09.2017</td>
<td></td>
</tr>
<tr>
<td>Printed freeform optics for light control</td>
<td>CSEM SA Muttenz</td>
<td>Basel</td>
<td>✓</td>
<td>18915</td>
<td></td>
<td></td>
<td>PDM ou Stage</td>
<td>0</td>
<td>1</td>
<td>à trouver (si PDM)</td>
<td>11.09.2017</td>
<td></td>
</tr>
</tbody>
</table>
Master thesis in industry, some advice for students

- Give priority to Master thesis proposals from laboratories of your section and proposals posted on the IS-A portal with confirmed academic supervisor.

If you can’t find a suitable topic this way, consider doing an internship to validate your industry immersion. If this is not an option, then proceed like this:

- Contact potential academic supervisors to inform them on your intentions.
- Apply for positions and inform companies on your objective to do a master thesis (in motivation letter, during e-mails exchanges and interviews, …).
- Refer to the following webpage to inform the company.
- Organize a meeting between the academic supervisor and the company to discuss the content and workplan of the project and settle administrative issues. Suggest the signature of the EPFL master thesis agreement (to settle IP and confidentiality).
- Insure a coordinated supervision and regular meetings between the company and the teacher during the project.
Master thesis in industry, best practices for academic supervisors

1. Introduction

This document sets out the rules to be observed in the field of supervision of master projects in industry.

Master projects in industry are particular in that they are an academic task performed outside academic circles within a host company. Indeed, they imply a tripartite relationship (EPFL professor, student, company) making academic and legal issues more complex due to the hybrid nature of the work.

2. Use of EPFL resources

Students may not use EPFL installations, resources, information, software or other intangible assets without their professor’s written approval.

3.2. Use of EPFL resources

Students may not use EPFL installations, resources, information, software or other intangible assets without their professor’s written approval.

A professor may not under any circumstances supervise a student’s master project without first making contact with the company prior to any commitment by the parties. Professors are entitled to refuse to supervise a student’s master project should the terms discussed with the company not suit them or contravene EPFL requirements in this field.

In addition, the collaboration induced by the master project in industry must benefit the company.

A master project in industry remains first and foremost a master project. It must therefore perform in a company, the master project must imperatively include a research and include an academic dimension defined and controlled by the professor. Although it is performed in a company, the master project must benefit the advancement of science in its field.

Innovation angle, thus contributing to the advancement of science in its field.
The master thesis agreement (access for teachers only) specifies the commitments and responsibilities of the supervising teacher, the company and the student. This agreement can be signed upon request of the teacher or the company.

It defines IP and confidentiality aspects for any master thesis in industry without existing collaborations.

It allows the academic supervisor to have access to the results of your work without having to sign an NDA.

As it is not mandatory, amendments and changes requested by companies won’t be accepted by the internship coordination or the legal department of EPFL.
Mandatory Steps for a Master project in Industry

- Find a master project in industry by contacting the professors of your section.
- A master subject can also be found through the IS-A Internship portal. In this case, it is mandatory to find a professor willing to supervise you before you accept the offer from the company. Make sure to comply with the following directions: **Coordinated Master Thesis in Industry**

- **Official starting dates** for master projects are determined at a school level. Other starting dates can be obtained on special request to your section.

- All administrative details of your master project in industry have to be settled between the employer and the professor supervising your work. A special **Master project agreement** (link only accessible to Professors) can be signed on request by the supervising professor or the partner company.

- Once all the details of your Master project have been settled, register your project in your study plan.

- Update your FRAC

- **General information** about Master’s Projects
Important remarks

☐ As an EPFL student doing an internship in industry, you act as an EPFL Ambassador. Thanks to your work and positive attitude, you will leave an important impression in the company.

☐ This aspect is not only important for your future professional career, but also for the EPFL internship program which will benefit from this lasting impression.
Information and contacts

- For additional information, please visit the internship pages of SGM:
  - https://sti.epfl.ch/research/institutes/igm/education/engineering-internship

- EPFL webpage:

- Depending on your inquiry, you can contact the following persons:
  - Hind Klinke
    STI
    Internship Coordinator
  - Alain Prenleloup
    SGM
    Adjunct to section director
  - Anne Mireille Legrand
    SGM
    Administration
  - Stéphanie Mottier
    STI-DO
    Administration
Questions?

Thank you for your attention
And best of success for your internship campaign!

😊
EPFL – Internships
Mechanical Engineering

- More info and statistics
EPFL links to Industry

- Vice Presidency for Innovation
  - Tech transfer
  - Innovation Park
  - Sponsored chairs
  - Special programs
  - Alliance

- Career Center
  - Employer survey
  - Jobs for Brains Recruitment platform
  - Recruitment days
  - Round tables
  - Sponsorships
  - EPFL Forum

- EPFL Alumni
  - Network
  - Events
  - Magazine

- Section advisory boards
  - Meeting every year

- Research labs; industrial projects

- Master Theses in Industry
- Internships in Master curriculum
Value chain from internships to industry funded research

- Internships
- Master projects
- Funded research
- EPFL academic rankings
- Innovation for Industry
- Professional insertion of students

Startups
Internship evaluations

Student auto-evaluation
(Years 2015-2020, 1400 students)

The placement gave me a clear idea as to the realities of working life

- Completely agree: 726
- Agree: 530
- Neither agree nor disagree: 140
- Disagree: 1051
- Completely disagree: 42

The placement was an opportunity for me to acquire new practical skills and knowledge

- Completely agree: 1051
- Agree: 303
- Neither agree nor disagree: 42
- Disagree: 859
- Completely disagree: 141

I was able to demonstrate my professional independence

- Completely agree: 462
- Agree: 507
- Neither agree nor disagree: 161
- Disagree: 492
- Completely disagree: 52

I have good communication skills

- Completely agree: 832
- Agree: 625
- Neither agree nor disagree: 175
- Disagree: 770
- Completely disagree: 52

I integrated well into the professional context

- Completely agree: 587
- Agree: 605
- Neither agree nor disagree: 101
- Disagree: 625
- Completely disagree: 60

I improved my organisational skills

- Completely agree: 857
- Agree: 214
- Neither agree nor disagree: 42
- Disagree: 1051
- Completely disagree: 141

I was able to apply my technical and scientific knowledge

- Completely agree: 694
- Agree: 605
- Neither agree nor disagree: 101
- Disagree: 625
- Completely disagree: 52
Internship evaluations

Feedback on the host company by student
(Years 2015-2020, 1400 students)
Internship offers from industry – to Engineering students

<table>
<thead>
<tr>
<th>Year</th>
<th>Offers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>236</td>
</tr>
<tr>
<td>2012</td>
<td>532</td>
</tr>
<tr>
<td>2013</td>
<td>597</td>
</tr>
<tr>
<td>2014</td>
<td>671</td>
</tr>
<tr>
<td>2015</td>
<td>690</td>
</tr>
<tr>
<td>2016</td>
<td>844</td>
</tr>
<tr>
<td>2017</td>
<td>942</td>
</tr>
<tr>
<td>2018</td>
<td>1141</td>
</tr>
<tr>
<td>2019</td>
<td>1377</td>
</tr>
</tbody>
</table>
Number of offers - Per Engineering student

<table>
<thead>
<tr>
<th>Year</th>
<th>Materials</th>
<th>Mechanical</th>
<th>Electrical</th>
<th>Micro</th>
<th>Bio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1.5</td>
<td>4.2</td>
<td>7.2</td>
<td>3.3</td>
<td>4.3</td>
</tr>
<tr>
<td>2012</td>
<td>1.4</td>
<td>4.8</td>
<td>8.2</td>
<td>3.4</td>
<td>6.6</td>
</tr>
<tr>
<td>2013</td>
<td>1.9</td>
<td>4.7</td>
<td>9.2</td>
<td>3.4</td>
<td>7.0</td>
</tr>
<tr>
<td>2014</td>
<td>2.9</td>
<td>3.9</td>
<td>10.3</td>
<td>3.6</td>
<td>7.2</td>
</tr>
<tr>
<td>2015</td>
<td>2.5</td>
<td>6.2</td>
<td>7.4</td>
<td>4.4</td>
<td>7.2</td>
</tr>
<tr>
<td>2016</td>
<td>3.3</td>
<td>6.1</td>
<td>11.9</td>
<td>4.7</td>
<td>10.5</td>
</tr>
<tr>
<td>2017</td>
<td>12.0</td>
<td>16.8</td>
<td>5.8</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>2018</td>
<td>11.9</td>
<td>16.8</td>
<td>4.2</td>
<td>4.8</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.9</td>
</tr>
</tbody>
</table>
In 2019:
- Electrical Engineering: 758 offers (+24% vs 2018)
- Mechanical Engineering: 549 offers (+31% vs 2018)
- Microengineering: 652 offers (+28% vs 2018)
- Materials Sciences: 437 offers (+32% vs 2018)
Internship countries of STI students (2015-2019)

<table>
<thead>
<tr>
<th>Country</th>
<th>EL</th>
<th>GM</th>
<th>MT</th>
<th>MX</th>
<th>Somme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suisse</td>
<td>205</td>
<td>383</td>
<td>367</td>
<td>203</td>
<td>1,158</td>
</tr>
<tr>
<td>France</td>
<td>18</td>
<td>69</td>
<td>14</td>
<td>14</td>
<td>115</td>
</tr>
<tr>
<td>Allemagne</td>
<td>13</td>
<td>14</td>
<td>11</td>
<td>5</td>
<td>43</td>
</tr>
<tr>
<td>États-Unis</td>
<td>9</td>
<td>2</td>
<td>18</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Japon</td>
<td>7</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Pays-Bas</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Chine</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Belgique</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Espagne</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Suède</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Royaume Uni</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Norvège</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Singapour</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Brésil</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>EL</th>
<th>GM</th>
<th>MT</th>
<th>MX</th>
<th>Somme</th>
</tr>
</thead>
<tbody>
<tr>
<td>VD</td>
<td>84</td>
<td>173</td>
<td>205</td>
<td>55</td>
<td>517</td>
</tr>
<tr>
<td>GE</td>
<td>22</td>
<td>71</td>
<td>35</td>
<td>32</td>
<td>160</td>
</tr>
<tr>
<td>NE</td>
<td>22</td>
<td>32</td>
<td>40</td>
<td>21</td>
<td>115</td>
</tr>
<tr>
<td>AG</td>
<td>31</td>
<td>19</td>
<td>4</td>
<td>21</td>
<td>75</td>
</tr>
<tr>
<td>ZH</td>
<td>9</td>
<td>22</td>
<td>23</td>
<td>14</td>
<td>68</td>
</tr>
<tr>
<td>BE</td>
<td>12</td>
<td>15</td>
<td>25</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>FR</td>
<td>5</td>
<td>20</td>
<td>7</td>
<td>11</td>
<td>43</td>
</tr>
<tr>
<td>VS</td>
<td>11</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td>SO</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>LU</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>SG</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>JU</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>BL</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>BS</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
Average number of applications through portal to secure the internship

<table>
<thead>
<tr>
<th></th>
<th>EL</th>
<th>GM</th>
<th>MT</th>
<th>MX</th>
<th>EPFL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>3.7</td>
<td>4.9</td>
<td>3.4</td>
<td>4.7</td>
<td>4.5</td>
</tr>
<tr>
<td>Internships</td>
<td>20</td>
<td>50</td>
<td>55</td>
<td>21</td>
<td>402</td>
</tr>
</tbody>
</table>
Average number of applications through portal to secure the internship

- **School of Engineering**
  - 2014: 57 internships, 2.9 applications
  - 2015: 92 internships, 3.8 applications
  - 2016: 60 internships, 4.0 applications
  - 2017: 98 internships, 4.4 applications
  - 2018: 140 internships, 4.7 applications
  - 2019: 146 internships, 4.5 applications

**Legend:**
- Red: STI
- Green: EPFL
Average number of applications by Nationality to secure the internship (2014 – 2019)