EPFL

EPFL – Internships
Microengineering and Robotics

- General context
- Administrative procedures

Hind Klinke

Coordinatrice des stages STI

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
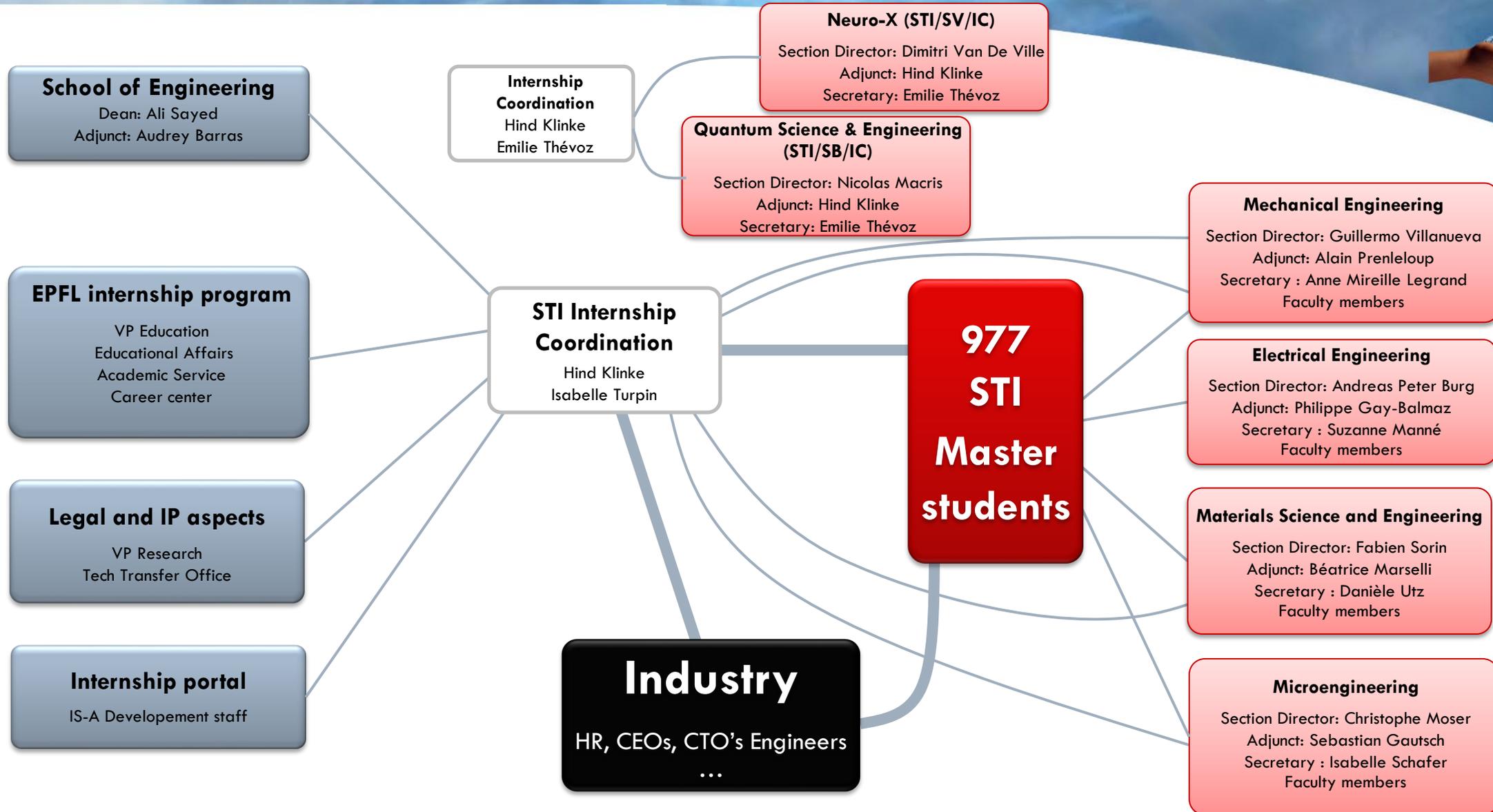- A new insight on current issues, innovate !
- Evaluate futur employees

❑ EPFL
- A direct link to industry
- A platform to start collaborations on the research level
- Feedback from industry to improve the education of our students

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STI Internship Coordination

School of Engineering
Dean: Ali Sayed
Adjunct: Audrey Barras

Internship Coordination
Hind Klinke
Emilie Thévoz

Neuro-X (STI/SV/IC)
Section Director: Dimitri Van De Ville
Adjunct: Hind Klinke
Secretary: Emilie Thévoz

Quantum Science & Engineering (STI/SB/IC)
Section Director: Nicolas Macris
Adjunct: Hind Klinke
Secretary: Emilie Thévoz

EPFL internship program
VP Education
Educational Affairs
Academic Service
Career center

STI Internship Coordination
Hind Klinke
Isabelle Turpin

977 STI Master students

Mechanical Engineering
Section Director: Guillermo Villanueva
Adjunct: Alain Prenleloup
Secretary : Anne Mireille Legrand
Faculty members

Electrical Engineering
Section Director: Andreas Peter Burg
Adjunct: Philippe Gay-Balmaz
Secretary : Suzanne Manné
Faculty members

Legal and IP aspects
VP Research
Tech Transfer Office

Materials Science and Engineering
Section Director: Fabien Sorin
Adjunct: Béatrice Marselli
Secretary : Danièle Utz
Faculty members

Internship portal
IS-A Developement staff

Industry
HR, CEOs, CTO's Engineers …

Microengineering
Section Director: Christophe Moser
Adjunct: Sebastian Gautsch
Secretary : Isabelle Schafer
Faculty members

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Internship obligation

❑ 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 the industry

	Models	Duration	Periods
MT & Robotics	STAP	Min. 8 weeks	After bachelor, after MA2 or MA3
	PDME	25 weeks	During the Master project

Mandatory Internship or Master Project in Industry

❑ Internship

- Minimum duration of 2 months, up to 6 months
- Immersion into industry
- Familiarize with company processes
- Aquire specific competences
- Apply transversal skills
- Evaluation report by student and industry supervisor
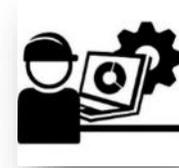
❑ Master project in industry

- A research project in the company
- Student applies the competences aquired during his master
- Supervised by a Professor **from his section**
- Written report and oral defense
- **Regular feedback to Professor**
- 25 weeks duration (+1 week vacation)

When to place your internship / Master thesis?

Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall

Internship 8 weeks | Master cycle 60 credits | | | Minor/spec 30 credits | PDM in **academia** 17 weeks / 30 credits | | |

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PDM in academia in foreign Universities: 25 weeks

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When to place your internship / Master thesis?

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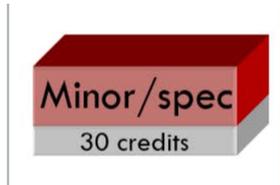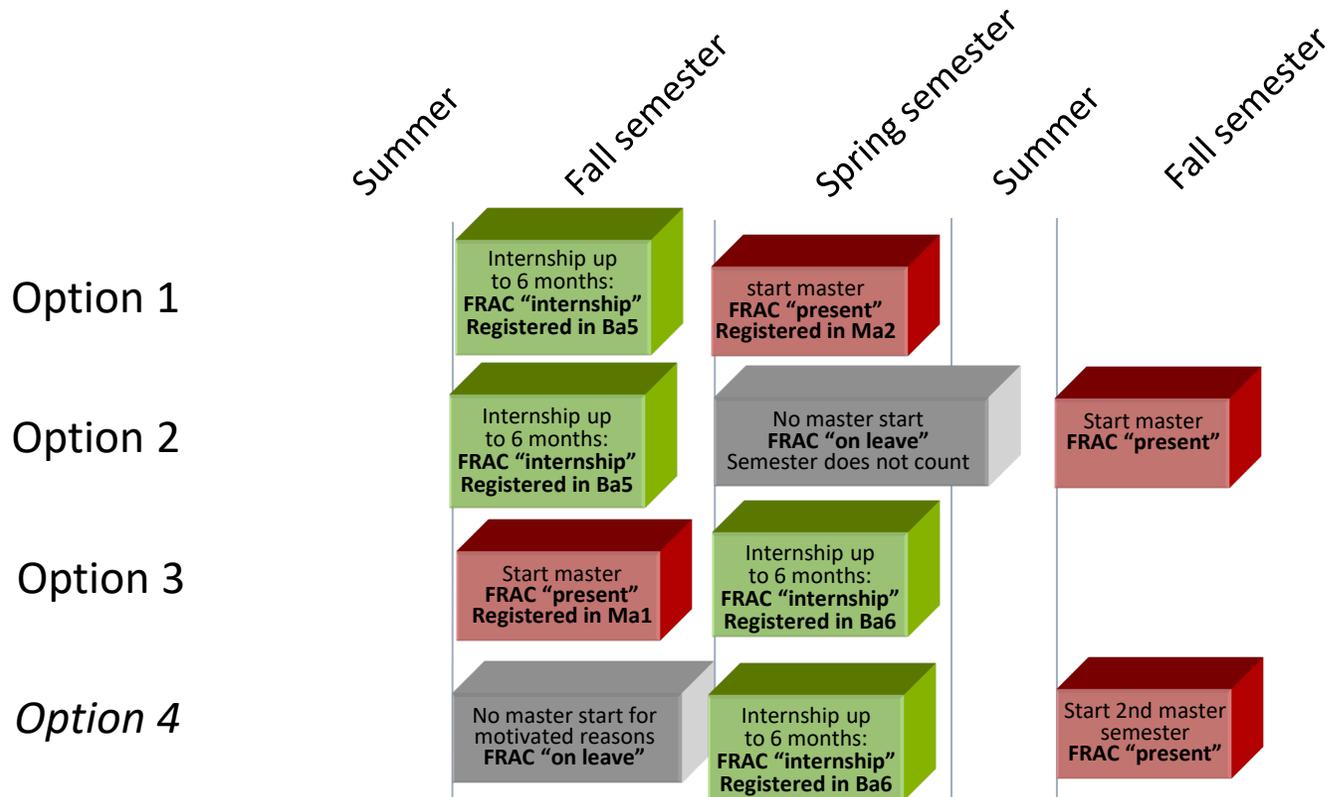
Master cycle
60 credits

Internship
6 months

Minor/spec
30 credits

PDM in academia
17 weeks
30 credits

PDM in academia in foreign Universities: 25 weeks

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When to place your internship / Master thesis?

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Minor/spec
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6 months

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Master cycle
60 credits

Minor/spec
30 credits

Internship
6 months

Master project in **Industry**
25 weeks
30 credits

PDM in academia in foreign Universities: 25 weeks

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:

	Summer	Fall semester	Spring semester	Summer	Fall semester
Option 1		Internship up to 6 months: **FRAC "internship" Registered in Ba5**	start master **FRAC "present" Registered in Ma2**		
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**		
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

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

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What is considered «Industry» ?

❑ Every company or start-up offering a workplace outside of an EPFL laboratory and outside of a university

❑ Every Research Organisation not delivering academic credits

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

☐ 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, …)

Internships outside Switzerland

Some recommendations for an internship abroad:

https://www.epfl.ch/campus/security-safety/en/security/travels-abroad/plan/

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

- 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 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. 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".

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**EPFL – Internships
Microengineering and Robotics**

- 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 responsibilty 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:

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.

		Optimisation du potentiel énergétique d'une installation de traitement des granulats	03.10.2022	Holcim (Suisse) SA	Aigle	⬤
		Multi-Frequency, Multi-Modal transduction of Piezoelectric Micromachined Ultrasonic Transducers (PMUTs).	03.10.2022	IMEC	Leuven, Belgium	
		Aerospace smart sensors - R&D embedded software developer	03.10.2022	Meggitt SA	Fribourg	
		Comparing NTA/IDS(Suricata+QosmosDPI, nProbe Cento+nDPI, Mellanox/Nvidia @BF2 ARM AR QosmosDPI) Solutions @100Gbps	02.10.2022	Universitaet Bern	Bern 3012, HochSchulStrasse 6	
		Simulation Based Aerodynamic Performance Evaluation	30.09.2022	Sauber Motorsport AG	Hinwil, Switzerland	
		L'exploitation optimale des installations techniques dans l'environnement bâti	30.09.2022	energo	Lausanne	⬤

Forum EPFL

https://www.forum-epfl.ch/

EPFL Alumni network

☐ EPFL students have access to the Alumni network
  ■ Website: https://www.epflalumni.ch/students/
    Pocketcampus app

EPFL Career Center workshops/presentations

https://epflcareer.ch/en/

Dear student, Dear doctoral student,

ORACLE invites you to join them for an exclusive insight into Oracle Labs and for an overview of their internship opportunities on **Wednesday, 25 October 2023 à 5.15 p.m. in** Room BC410 .

1. ORACLE Labs Presentation & Tech Talk (open to all): from 5.15 p.m. to 6.15 p.m.

Oracle Labs is Oracle research center where most of Oracle innovation take place. The research areas span most fields of computer science. This presentation's journey will walk through some areas of Oracle research and development: Generative AI and data science - Data processing as graphs - Compiler graphs- Compilations for cloud native. Join us to discuss those topics with Oracle core engineers!

In the ever-evolving landscape of machine learning, Generative Artificial Intelligence has emerged as a game-changer technology for our everyday and professional lives. In this talk, they'll explore how large language models (LLMs) are transforming software development and data science at Oracle, by assisting developers via code generation, process acceleration and quality assurance.

>> More about Oracle's Presentation here.

>> Biography of Oracle's speakers here: Giulia Carocari, Arnaud Delamare, Boris Spasojevic, Martijn Dwars.

>> References:

- Oracle Labs : https://labs.oracle.com/
- GraalVM : https://www.graalvm.org/

Other opportunities for finding an internship

☐ Personal contacts, family, friends

☐ Topic related agencies and organizations

☐ 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 Mr. Abdeljalil Sayah as soon as you have found an opportunity

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:
  - The company if the contact is visible
  - Your internship coordinator if not
- 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 priviledged contact with

- Do not use the portal for personal internship search

- Apply always through the portal for mandatory internship

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
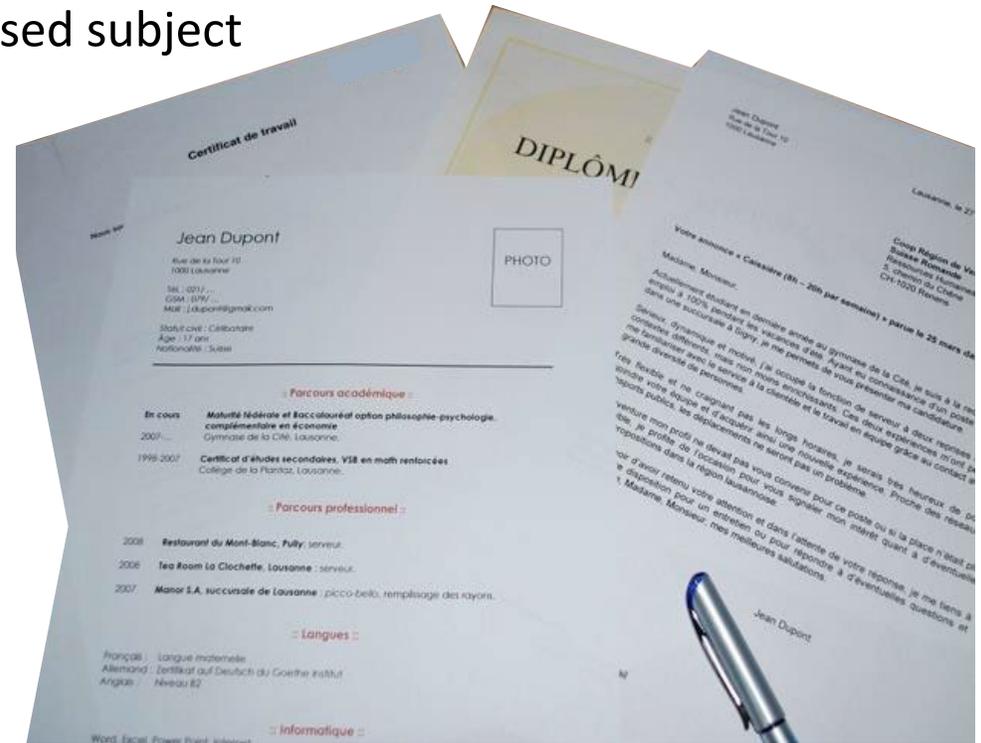
Interview

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.

- 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/

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Internship agreement

☐ The internship agreement 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.
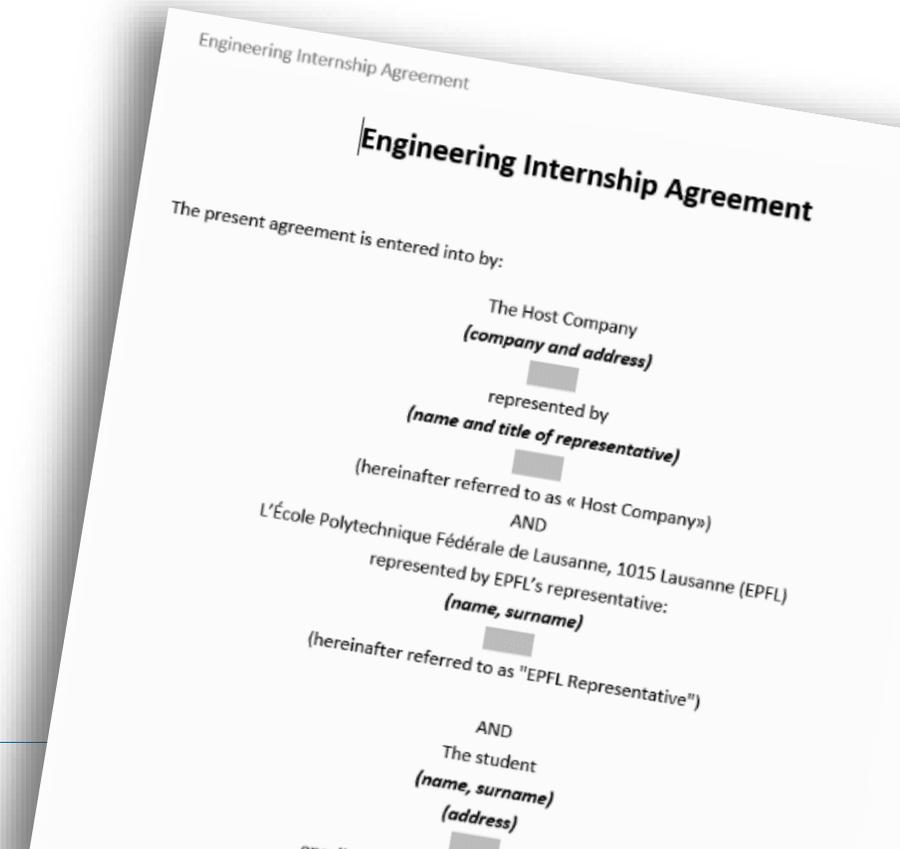
Mandatory: Register internships found on your own

☐ Submit a short but detailed description of your internship to Mr. Abdeljalil Sayah

☐ 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.

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»

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 responsibilty 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 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 automatically 2 weeks prior to ending).

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Evaluation form

Application of scientific and technical knowledge

Planning and management of work tasks

Integration in the professional world

Communication

Independence

	E	G	S	I	N	Comments
Application of scientific and technical knowledge						
Technical skills and knowledge						
Ability to resolve complex problems						
Mastery of domain-specific methodologies						
Planning and management of work tasks						
Definition of work objectives and management of priorities						
Evaluation of resources required						
Work planning, monitoring of activities, and management of emergent issues						
Integration in the professional world						
Respect for the organizations procedures/ rules and for their profession's ethical codes						
Capacity to work in teams						
Quality of the work delivered						
Communication						
Written communication (structure, clarity, coherence of reasoning)						
Oral communication (clarity, reasoning, self-confidence)						
Interpersonal skills and engagement, including in a multicultural context						
Independence						
Ability to present and defend her/his own ideas						
Capacity to access sources of information and to evaluate them						
Capacity to self-evaluate and to respond constructively to feedback						
Overall Evaluation						

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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 [Mr. Adbeljalil Sayah](#)

☐ 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 Mr. Abdeljalil Sayah.

☐ 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 porta](#)l. 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 ✘

Compatibility with academic calendar

IP owner(s)

Confidentiality

Eligibility of candidate for master thesis

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 ✘

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

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 ✘

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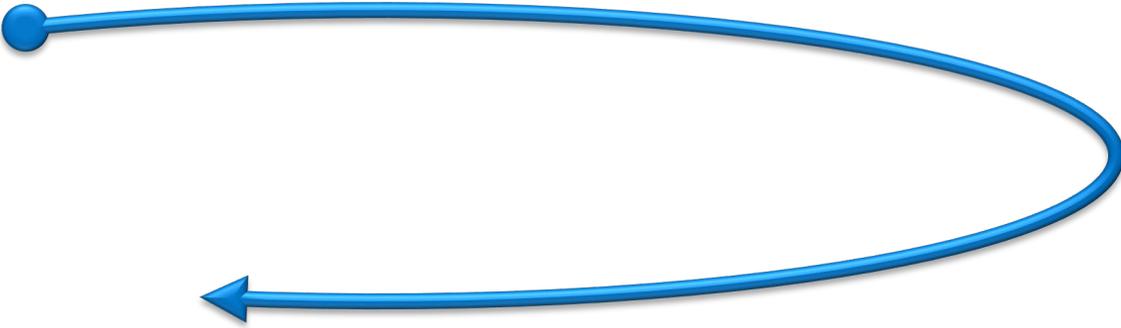# Ideal Scenario for Master Projects in industry

Company has an idea for a master thesis project

Company discusses the project with a Professor

Company submits the proposal on the EPFL portal

Project starts under co-supervision by company and professor

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

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Master thesis in industry – offers on the internship portal

Action	Stage	Entreprise mère	Localisation du stage	Févr-Sept (P1)	Juil-Févr (P2)	Juil-Sept (P3)	N° du stage	Format	Inscrits	Places	Prof	Date de création du stage
					= ▼	[tous] ▼						
👁 ✏	Amélioration qualité image satellite par contrôle fin de la ligne de visée	Thales Alenia Space	Cannes, France	✓			18976	Stage	0	1		14.09.2017
👁 ✏	Experimental Physics Internship	Distran GmbH	Zurich	✓			18973	PDM ou Stage	0	1	à trouver (si PDM)	14.09.2017
👁 ✏	Transfer learning for field and crop adaptation in agriculture applications	ecoRobotix	Yverdon-les-Bains	✓			18972	PDM ou Stage	0	1	à trouver (si PDM)	14.09.2017
👁 ✏	Product Engineer	Infineon Technologies France	Aix en Provence	✓			18967	Stage	0	1		14.09.2017
👁 ✏	déploiment d'un système de sureté pour un site sensible	Etavis tsa	Carouge	✓			18962	Stage	0	1		13.09.2017
👁 ✏	Thermal effect and Compensation in high precision states	Etel S.A.	Bienne	✓		✓	18953	Stage	0	1		13.09.2017
👁 ✏	Intern Manufacturing	Stryker Trauma AG	Selzach (SO)	✓			18934	Stage	0	1		12.09.2017
👁 ✏	Modélisation d'un processus de laminage	Constellium Valais SA	Sierre	✓			18933	Stage	0	1		12.09.2017
👁 ✏	Hybrid PET/MR imaging guided radiation therapy treatment planning	Hôpitaux Universitaires de Genève	HUG Genève	✓	✓		18930	PDM coordonné	0	2	Prof. Thiran Jean-Philippe	12.09.2017
👁 ✏	Various internship positions in Motion analysis Startup for applications in Sports, Health and Gaming	Gait Up	Renens	✓			18922	Stage	1	2		12.09.2017
👁 ✏	Various internship positions in Motion analysis Startup for applications in Sports, Health and Gaming	Gait Up	Renens	✓	✓		18920	PDM coordonné	0	2	Prof. Aminian Kamiar	12.09.2017
👁 ✏	Printed freeform optics for light control	CSEM SA Muttenz	Basel	✓			18915	PDM ou Stage	0	1	à trouver (si PDM)	11.09.2017

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, …)

❏ The academic supervisor should discuss with the company about the academic content and administrative formalities. 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

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Master project agreement

- [ ] The master thesis agreement 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

Agreement for master project

Agreement for master project

Important notice for the heads of EPFL laboratories:
This agreement shall not be signed:
1) when the master project is part of a research project financed by the company. In such a case, a research agreement shall be negotiated and executed in collaboration with the company and the Technology Transfer Office of EPFL (TTO) and the student will sign with EPFL an agreement on intellectual property and confidentiality.
2) when the laboratory discloses to the Student source code or EPFL confidential information. In such a case, the ownership on and the right to use EPFL intangible assets and the results of the Student shall be well analysed and discussed. Do not hesitate to contact TTO.
In addition, this agreement may only be signed if it is fully compatible with the other projects withi the laboratory.

The present agreement is entered into bet

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.

- ☐ 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 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

EPFL internships on the web

EPFL webpage:

Information and contacts

☐ For further information,

please visit the internship page of your section:

https://sti.epfl.ch/smt/internships/

EPFL webpage:

https://go.epfl.ch/infos-stages

Depending on your inquiry, you can contact the following persons:

Sebastian Gautsch	Abdeljalil Sayah	Hind Klinke	Isabelle Schafer	Isabelle Turpin
SMT	SMT	STI	SMT	STI
Adjunct to the section Director	Validation of internship subjects & signature of internship agreement	Internship Coordinator	Administration	Administration

Questions ?

Thank you for your attention

And best of success for your internship campaign!

☺