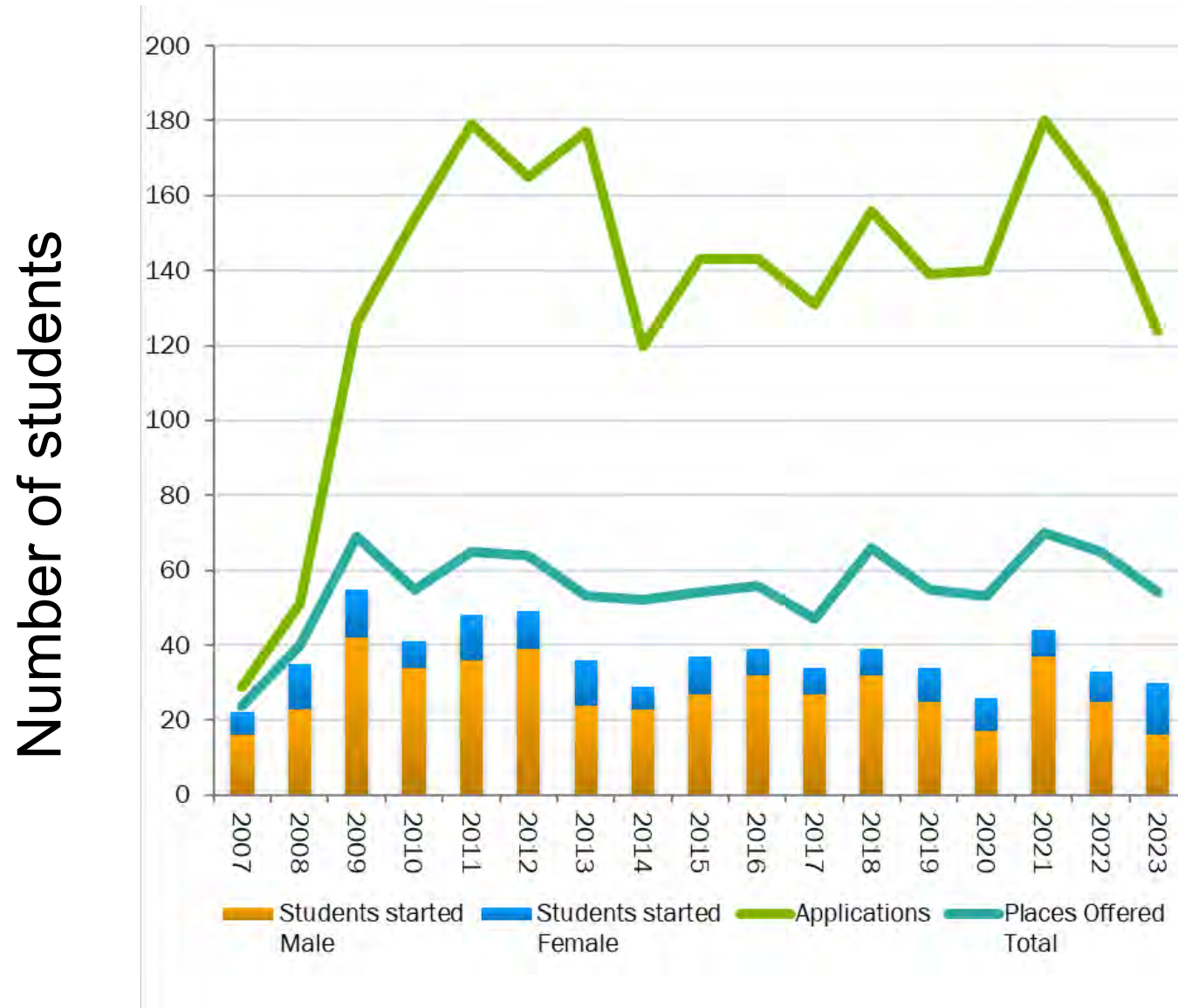


# Master in Energy Science and Technology

Prof. Dr. Christian Franck  
Programme Director  
19 September 2023

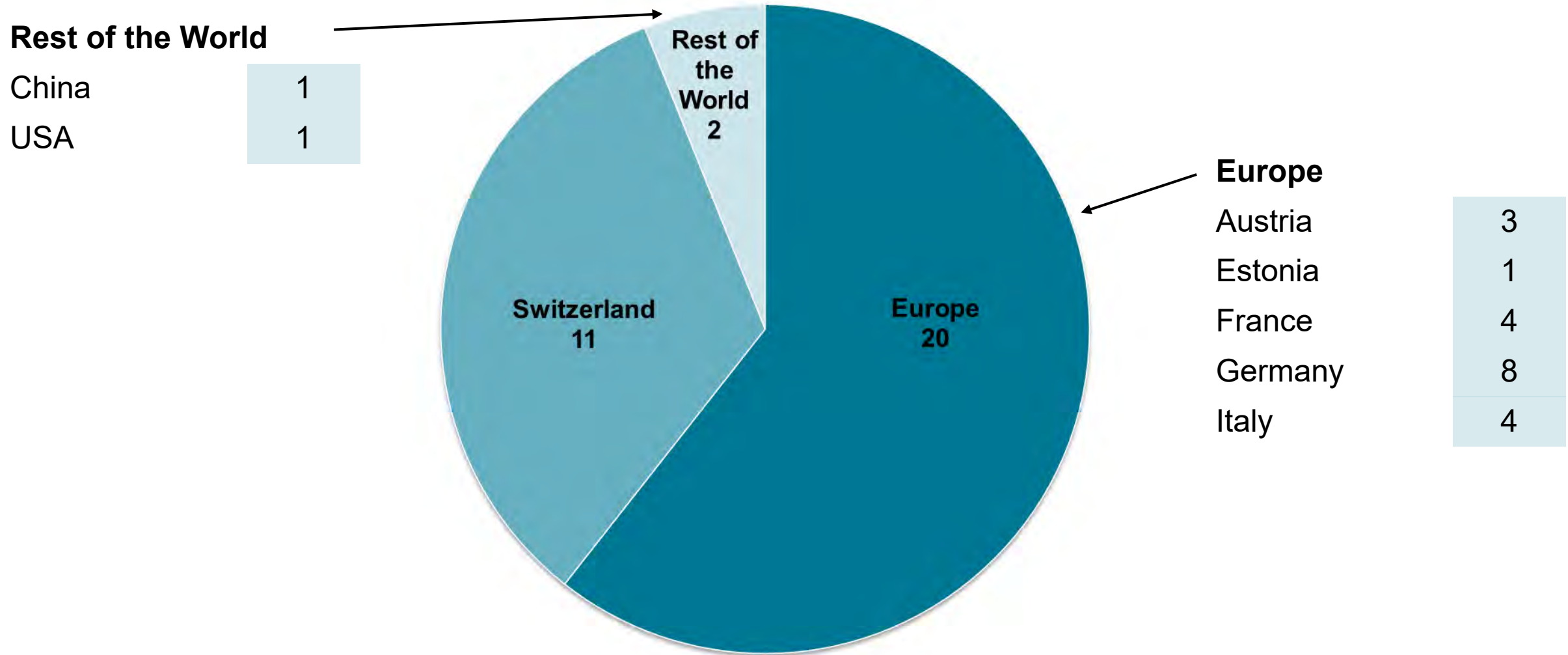


# MEST Applicants since programme started in 2007

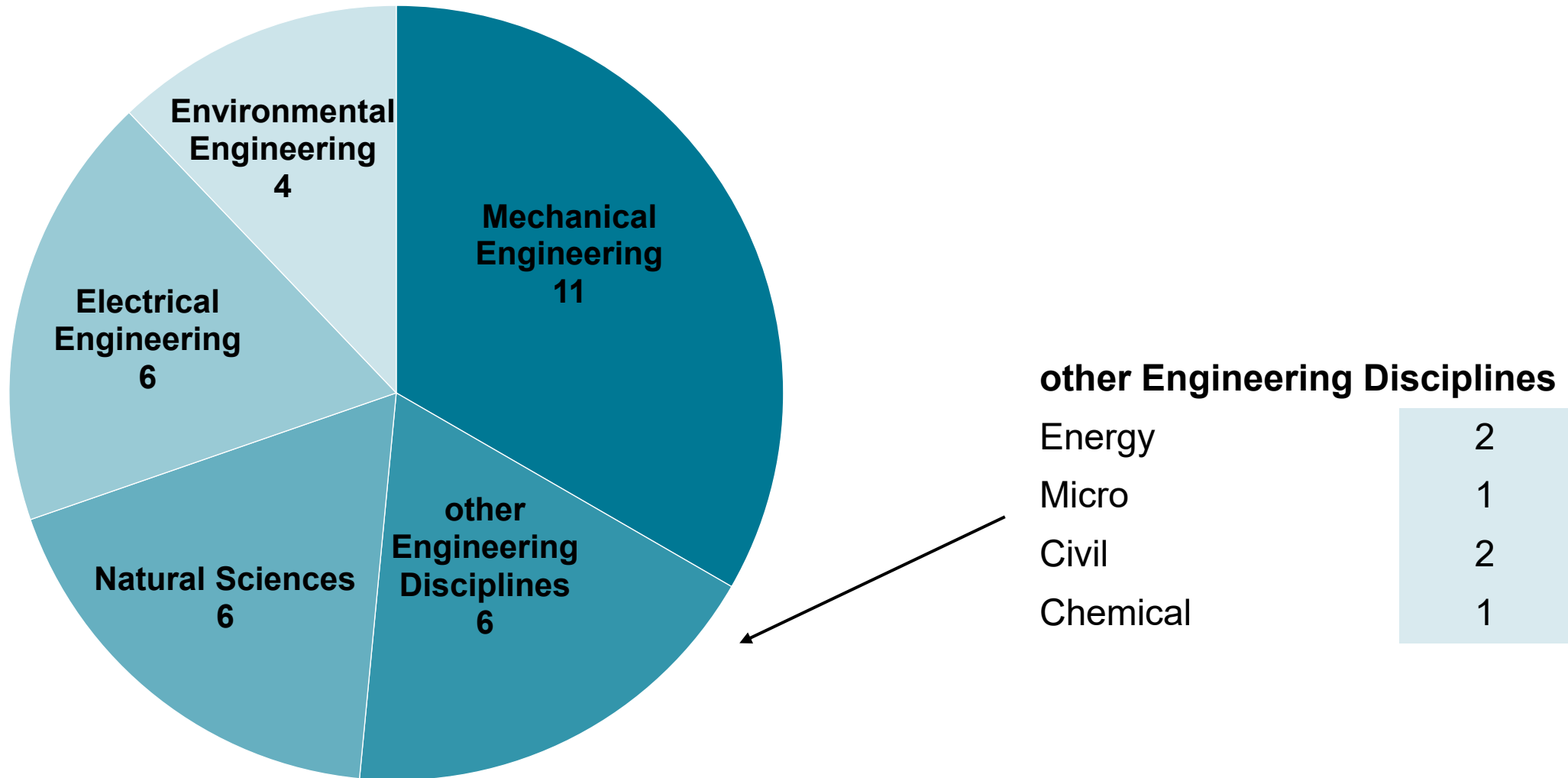




# 2023 MEST Students: Home Country



# 2023 MEST Students: Previous Study



# About the MEST

Jointly run by the departments

**DITET**

Information Technology and Electrical Engineering

**DMAVT**

Mechanical and Process Engineering

With the participation of

**DMTEC**

Management, Technology  
and Economics

## Who is involved in the MEST?

Programme Director



Prof. Christian  
Franck

Energy Science Center (ESC): Content



Dr. Christian  
Schaffner



Katharina  
Bosina

D-ITET: Leading Department, Administration



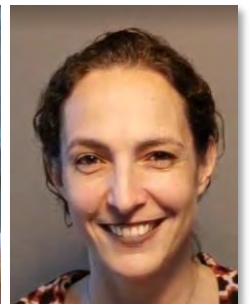
Reto  
Kreuzer



Andrea  
Salow



Audrey  
Djouadi



Tali  
Scheiner

# MEST Studies

**120 ECTS – typically 4-5 semesters full time**

**Credits**

A choice of Compulsory Courses	23 (minimum)
Elective Courses	
Total Compulsory and Elective	64 (minimum)
Humanities and Social Sciences Science in Perspective (D-GESS)	2
Semester project	12
Industrial Internship	12
Master Thesis	30
<b>Total</b>	<b>120</b>

# Compulsory Courses - overview

23 credits (minimum)

	Credits Autumn	Credits Spring
<b>Electrical Power Engineering (2 out of 3)</b>		
Electric Circuits	4	
Introduction to Electric Power Transmission: System & Technology	4	
Optimization in Energy Systems		6
<b>Energy Flows and Processes (2 out of 4)</b>		
Energy Conversion	4	
Combustion & Reactive Processes in Energy and Materials Technology	4	
CO2 Capture and Storage and the Industry of CarbonBased Resources		4
Electrochemical Energy Conversion and Storage Technologies		4
<b>Energy Economics and Policy (2 out of 3)</b>		
Principles of Microeconomics	3	
Energy Economics and Policy		3
Energy Innovation and Management		3
<b>Interdisciplinary Energy Management (mandatory)</b>		
Case Studies: Energy Systems and Technology: Parts 1&2	2	2

# Compulsory Courses

## Interdisciplinary Energy Management

### ‘Case Studies: Energy Systems and Technology’

- Unique to the MEST programme
- Covers technical, economic and regulatory aspects of the challenges associated with building a sustainable energy system for the future
- Everyone allocated to a Case Study
- Coaches (senior MEST students) allocated to each Case Study
- Kick-off meeting:

**Tuesday 26 September, 4.15-8pm, ETH Main Building HG E 3**



# Energy Research at ETH Zurich



## Renewable energies and hydropower

*Prof. Boes*  
*Prof. Kamgarpour*  
*Prof. Pérez-Ramirez*  
*Prof. Raubal*  
*Prof. Robertsson*  
*Prof. Stauffacher*  
*Prof. Steinfeld*  
*Prof. Saar*  
*Prof. Tiwari*  
*Prof. Wiemer*  
*Prof. Zeilinger*



## Power generation and distribution

*Prof. Farinotti*  
*Prof. Franck*  
*Prof. Giardini*  
*Prof. Grossner*  
*Prof. Hug*  
*Prof. Kamgarpour*  
*Prof. Kolar*  
*Prof. McKenna*  
*Prof. Müller*  
*Prof. Zeilinger*



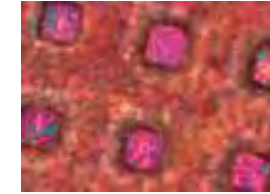
## Energy economics and policies

*Prof. Bretschger*  
*Prof. Filippini*  
*Prof. Fleisch*  
*Prof. Hoffmann*  
*Prof. Patt*  
*Prof. Tobias Schmidt*  
*Prof. Schubert*  
*Prof. Stauffacher*



## Energy conversion technologies

*Prof. Bardow*  
*Prof. Boulouchos*  
*Prof. Guillén Gosálbez*  
*Prof. Kovalenko*  
*Prof. Manera*  
*Prof. Mazza*  
*Prof. Müller*  
*Prof. Noiray*  
*Prof. Pérez-Ramirez*



## Material science and technology

*Prof. Battaglia*  
*Prof. Chatzi*  
*Prof. Copéret*  
*Prof. Ermanni*  
*Prof. Habert*  
*Prof. Kovalenko*  
*Prof. Lukatskaya*  
*Prof. Norris*  
*Prof. Tiwari*  
*Prof. Wood*



## Energy in domestic and industrial applications

*Prof. Carmeliet*  
*Prof. Deplazes*  
*Prof. Dörfler*  
*Prof. Fleisch*  
*Prof. Lygeros*  
*Prof. Mattern*  
*Prof. Schlüter*  
*Prof. Smith*



## Energy-efficient chemical products and processes

*Prof. van Bokhoven*  
*Prof. Habert*  
*Prof. Mougél*  
*Prof. Pérez-Ramirez*  
*Prof. Thom. Schmidt*



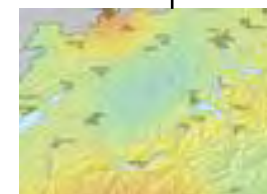
## CO<sub>2</sub> mitigation technologies

*Prof. Mazzotti*  
*Prof. Müller*  
*Prof. Steinfeld*  
*Prof. Seneviratne*



## Energy for personal and freight transportation

*Prof. Boulouchos*  
*Prof. Guzzella*  
*Prof. Onder*



## Sustainability and risk assessment

*Prof. Burlando*  
*Prof. Grêt Rega*  
*Prof. Hellweg*  
*Prof. Heinrich*  
*Prof. Knutti*  
*Prof. Sansavini*  
*Prof. Stauffacher*  
*Prof. Wenger*



## Thermal power plants

*Prof. Boulouchos*  
*Prof. Jenny*  
*Prof. Noiray*  
*Prof. Pérez-Ramirez*

# Tutors and Courses

## **All students have a confirmed tutor**

- 40 tutors from 9 different ETH Departments were available to choose from
- 90% of students have their first-choice tutor

## **Role of the tutor**

To supervise/support the students

- in putting together a study plan (called the Tutor Agreement / Learning Agreement)
- with master or the semester thesis
- profile is built by choosing courses from a catalogue of over 50 energy-related courses offered at ETH Zurich

# Tutors Agreement

**Ensure that your Tutor Agreement / Learning Agreement is completed no later than**

**Sunday 15<sup>th</sup> October 2023**

# Projects and Internships

- Your tutor
- MEST website: [www.master-energy.ethz.ch/studies/internship.html](http://www.master-energy.ethz.ch/studies/internship.html)
- MEST LinkedIn: <https://www.linkedin.com/showcase/master-energy-science-and-technology/>
- Polymesse (ETH Job Fair in April)
- International Organisations (IAESTE etc.)
- Direct contacts with industrial partners

Note: Internships must be approved by ETH **beforehand** (teaching@esc.ethz.ch)

# Case Studies

12 offered	6 chosen	Industry Partner	Title
CS A	CS 5	ABB	Sustainability of Battery Storage Solutions,
CS B	CS 6	Helion	Electric vehicles for ancillary services
CS C		Kyburz	End-of-life battery discharge and categorization
CS D		Hoprnet	Privacy in smart grid and local energy systems
CS E		Hoprnet	Privacy in advanced metering
CS F	CS 1	MAN Energy Solutions	Industrial Waste Energy for the Decarbonisation
CS G		Post	Battery Swap Technology
CS H		Energy 360°	Optimized valorization of waste water and waste biomass
CS I	CS 2	TBF	Geothermal Energy
CS J	CS 4	BKW	Cooling by PV-Rooftop
CS K	CS 3	Jura Zement	Cornaux Fuel Conversion
CS L		clemap	Grid Level 7 Demand Side Management






# Energy Science Center (ESC)

- Student representative
  - Two students (main & deputy)
  - Contact from students to ESC
  - Organizing one student event per semester together with ESC (funding from ESC provided)
  - opportunity for bottom-up initiatives
- Follow us on LinkedIn to get the latest news, events and job listings
- ...



The image is a screenshot of a LinkedIn profile page. At the top, there is a red banner with the 'ETH MEST' logo. To the right of the banner is a QR code. Below the banner, the profile name 'Master in Energy Science and Technology MEST - ETH Zurich' is displayed, followed by a bell icon. Underneath the name, it says 'Master's programme at ETH Zurich' and 'Hochschulen und Universitäten · Zürich · 560 Follower:innen'. There are three tabs: 'Start' (highlighted in green), 'Info', and 'Beiträge'. The 'Info' tab is selected, showing a paragraph of text about the importance of a clean energy supply and the role of education. At the bottom of the 'Info' section, there is a link that says 'Alle Details anzeigen'. Below the 'Info' section, there is a section for 'Beiträge' (posts) with a three-dot menu icon to its right.



# Energy Now! 2.0

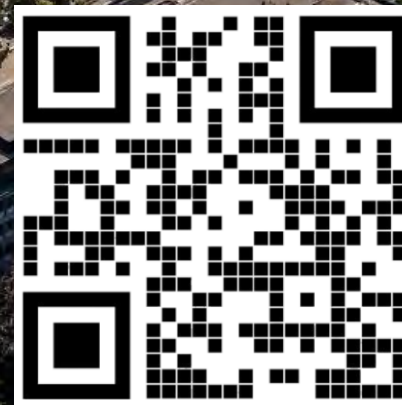
## Impact Accelerator Program

Energy Science Centre (ESC)  
Institute of Science, Technology and  
Policy (ISTP)



**ENERGY NOW !**  
AN IMPACT ACCELERATOR  
BY ETH ZÜRICH

2.0





# *ENERGYBLOG*

[blogs.ethz.ch/energy](https://blogs.ethz.ch/energy)

@eth\_energy\_blog

# MSc ETH in Energy Science and Technology

**Dr. Christian Schaffner**

`schaffner@esc.ethz.ch`, 044 632 72 55, SOI C 4

**Mr. Reto Kreuzer**

`reto.kreuzer@ee.ethz.ch`, 044 632 08 15, ETZ H 83

**Prof. Christian Franck**

`cfranck@ethz.ch`, 044 632 08 16, ETL H 28

**Mrs. Katharina Bosina**

`teaching@esc.ethz.ch`, 044 633 80 39, SOI C 5



[www.master-energy.ethz.ch](http://www.master-energy.ethz.ch)

Prof. Dr. Christian Franck  
Programme Director  
cfranck@ethz.ch

Deputy Head of Power Systems and High Voltage Lab.  
ETL H 28  
Physikstrasse 3  
8092 Zurich  
Switzerland



# Contacts / Information for Students of the MSc Quantum Engineering

September 19, 2023

Audrey Djouadi, schedule coordinator/ mobility advisor, D-ITET

# Agenda

1. The D-ITET – your host department
2. Finding the right contact
3. Administrative matters
4. Counselling



$$\int_{\partial V} (\mathbf{E} \times \mathbf{H}) \cdot \mathbf{n} \, d\mathbf{a} + \frac{\partial}{\partial t} \int_V 2[\dots]$$
$$-\int_V \mathbf{j} \cdot \mathbf{E} \, dV - \frac{1}{2} \int_V \left[ \mathbf{E} \cdot \frac{\partial \mathbf{P}}{\partial t} - \mathbf{P} \cdot \frac{\partial \mathbf{E}}{\partial t} \right] dV - \frac{\mu_0}{2} \int_V \left[ \mathbf{H} \cdot \frac{\partial \mathbf{M}}{\partial t} - \mathbf{M} \cdot \frac{\partial \mathbf{H}}{\partial t} \right] dV$$

$$\vec{E} \cdot \frac{\partial \vec{D}}{\partial t} = \frac{1}{2} \frac{\partial}{\partial t} [\vec{D} \cdot \vec{E}] + \frac{1}{2} \left[ \vec{E} \cdot \frac{\partial \vec{D}}{\partial t} - \vec{D} \cdot \frac{\partial \vec{E}}{\partial t} \right] \quad \vec{D} = \epsilon_0 \vec{E} + \vec{P}$$
$$\vec{E} \cdot \frac{\partial \vec{P}}{\partial t} = \frac{1}{2} \frac{\partial}{\partial t} [\vec{P} \cdot \vec{E}] + \frac{1}{2} \left[ \vec{E} \cdot \frac{\partial \vec{P}}{\partial t} - \vec{P} \cdot \frac{\partial \vec{E}}{\partial t} \right]$$
$$= \frac{1}{2} \frac{\partial}{\partial t} [\vec{D} \cdot \vec{E}] + \frac{1}{2} \left[ \vec{E} \cdot \frac{\partial \vec{P}}{\partial t} - \vec{P} \cdot \frac{\partial \vec{E}}{\partial t} \right]$$
$$\oint_V \vec{j} \cdot \vec{n} \, d\mathbf{a} + \frac{\partial}{\partial t} \int_V \rho \, dV = 0 \rightarrow \nabla \cdot \vec{j} + \frac{\partial \rho}{\partial t} = 0$$

The D-ITET – optimal support for students



# Professors



Prof. Luca Benini



Prof. Jürgen Biela



Prof. Helmut Bölcskei



Prof. Colombo Bolognesi



Prof. Florian Dörfler



Prof. Christian M. Franck



Prof. Benjamin Grewe



Prof. Ulrike Grossner



Prof. Richard Hahnloser



Prof. Gabriela Hug



Prof. Giacomo Indiveri



Prof. Taekwang Jang



Prof. Lana Josipovic



Prof. Johann W. Kolar



Prof. Ender Konukoglu



Prof. Sebastian Kozerke



Prof. Amos Lapidoth



Prof. Jürg Leuthold



Prof. Hans-Andrea Loeliger



Prof. Mathieu Luisier



Prof. John Lygeros



Prof. Valerio Mante



Prof. Onur Mutlu



Prof. Lukas Novotny



Prof. Mickaël Perrin



Prof. Klaas P. Prüssmann



Prof. Daniel Razansky



Prof. Kaveh Razavi



Prof. Metin Sitti



Prof. Marco Stampanoni



Prof. Klaas Enno Stephan



Prof. Christoph Studer



Prof. Luc Van Gool



Prof. Laurent Vanbever



Prof. János Vörös



Prof. Hua Wang



Prof. Roger P. Wattenhofer



Prof. Vanessa C. Wood



Prof. Mehmet Fatih Yanik



Prof. Maksym Yarema



Prof. Fisher Yu

# Numbers

<b>BSc</b>	ETH D-ITET	10'665 786	<ul style="list-style-type: none"> <li>• 41 professors</li> <li>• 50+ other lecturers</li> <li>• 500+ PhD students</li> <li>• Study administration</li> <li>• AMIV (incl. LIMES)</li> <li>• IT support</li> </ul>
<b>MSc</b>	ETH D-ITET Electrical Engineering MSc Biomedical Engineering MSc Energy Science & Technology MSc Quantum Engineering MSc <i>Neural Systems &amp; Comp. MSc (UZH)</i>	8'737 1'031 565 194 105 115 52	
<b>Exchange</b>	ETH D-ITET	386 49	





↑  
ETA-Scherrer-  
Hörsaal F 5  
Hörsäle  
E 8 / E 9  
Sitzungsraum  
E 81

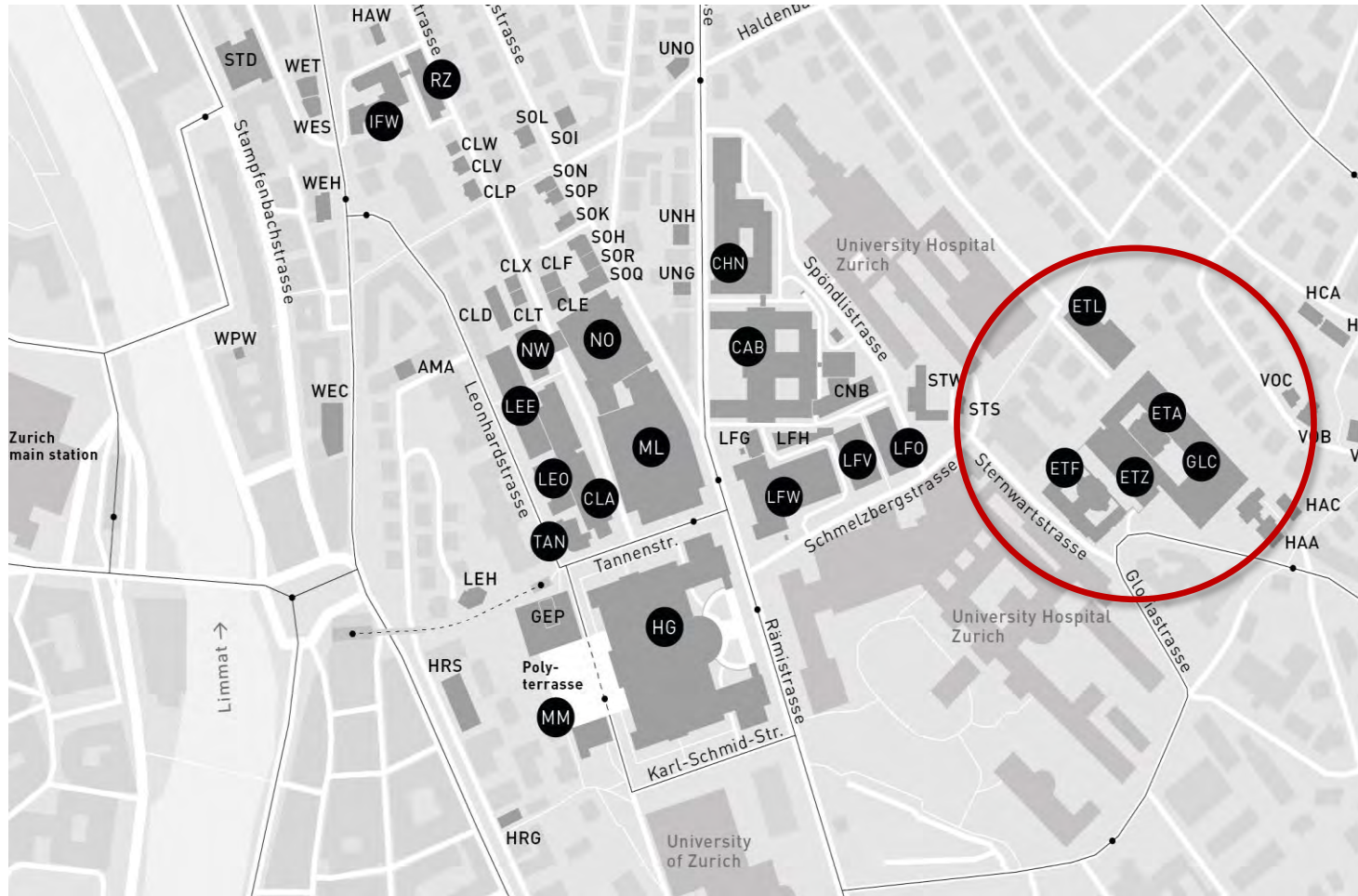
→  
Hörsäle  
E 6 / E 7  
Haupttreppe /  
Lifte

←  
ETF-Gebäude  
Hörsäle  
C 1 / E 1

Finding your contacts



# Map of ETH and D-ITET



<https://ethz.ch/staffnet/en/service/rooms-and-buildings/building-orientation.html>

# Information sites

- **General Information on studies at ETH**

ETH students' website: [www.ethz.ch/students](http://www.ethz.ch/students)

- **Information on the MSc Energy Science and Technology**

Programme website: <https://master-energy.ethz.ch/>

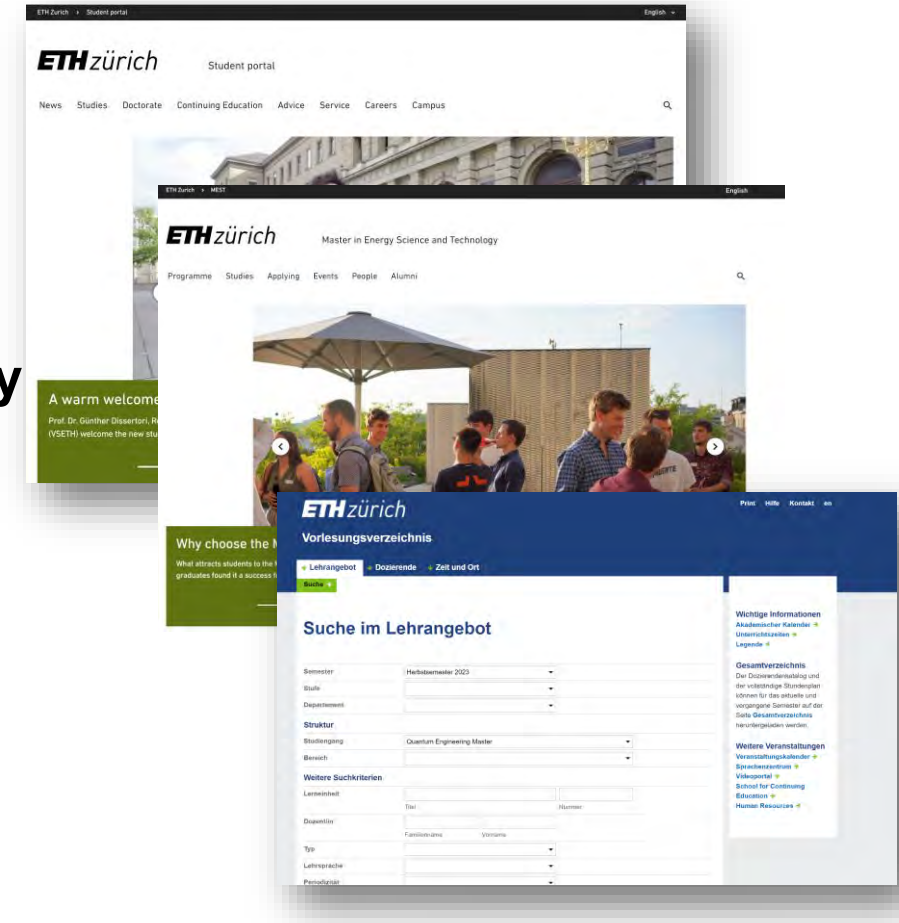
- **Course catalogue**

Online: [www.vvz.ethz.ch](http://www.vvz.ethz.ch) > Programme > Energy Science and Technology

- **Messages from ETH and the Department**

Email on your ETH-Address ([username@student.ethz.ch](mailto:username@student.ethz.ch))

→ **check your mailbox regularly and read the messages carefully!**



# Important contacts

## ETH / Rectorate

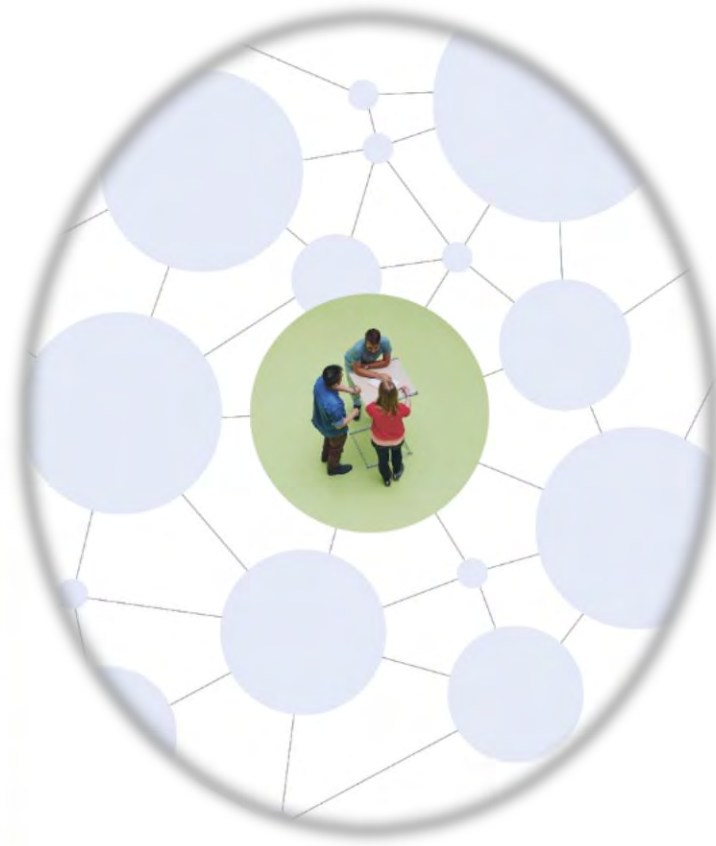
Registrar's Office (HG F 19)

**General administrative questions**  
e.g. matriculation, address changes,  
residence etc.

## Students' association

**AMIV (CAB E 37)**

Social contacts,  
networking



## D-ITET / student admin

**Student Admin (ETZ H 85)**

**Study specific admin. questions**  
e.g. grades/transcripts, waivers, counselling

**Tutors / Lecturers / TA**

Course specific questions, study plan

# Your contacts at the D-ITET



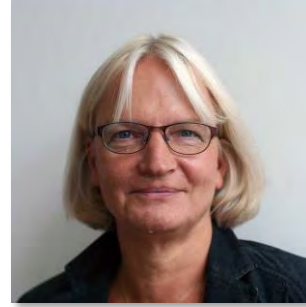
**Prof. Sebastian Kozerke**  
*Director of studies D-ITET*

ETZ F 94  
+41 44 632 53 25  
kozerke@biomed.ee.ethz.ch



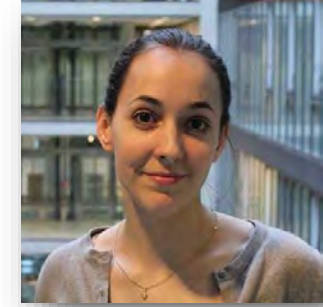
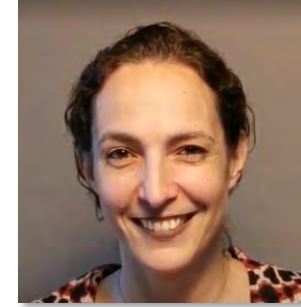
**Reto Kreuzer**  
*Study coordinator/  
Student advisor*

ETZ H 83  
+41 44 632 08 15  
info@ee.ethz.ch



**Andrea Salow / Tali Scheiner**  
*Student Administration*

ETZ H 85  
+41 44 632 50 03  
info@ee.ethz.ch



**Audrey Djouadi**  
*Course scheduling /  
Student exchange advisor*

ETZ H 87  
+41 44 632 89 57  
exchange@ee.ethz.ch





## Administrative matters

# myStudies – do not forget to...

## ... register for courses and exams

- register for each **semester** until the end of the second week
- register for **courses** early in the semester; you need to be registered for a course to enroll for an exam
- submit the **learning agreement** until the **end of the 4<sup>th</sup> week**
- register for **exams** during **week 3+4** of the semester, withdrawal is possible until very late

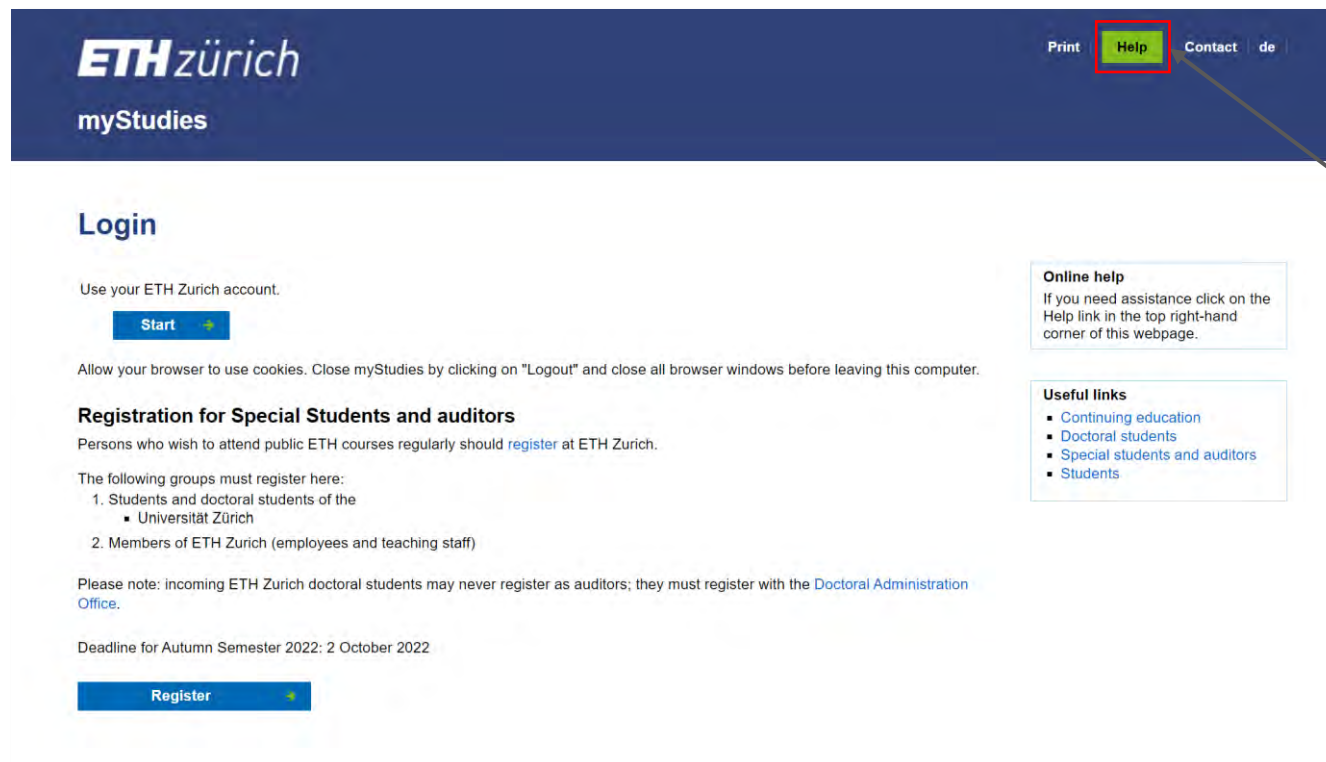
## ... notify us of your address changes

## ... and read your E-Mails!

# myStudies – how to?

Watch the Video on myStudies at

<https://ethz.ch/en/studies/non-degree-courses/exchange/about-the-study-programmes/videos.html>



Get Help



# myStudies – create a learning agreement

The learning agreement is the agreement with your tutor on the courses to be taken during your studies. Select it from the main page in myStudies - you can select courses from the course catalogue, by using the "Edit" button

**myStudies** Christof Vadini (19-953-041) [ Akademische Dienste ] Logout X

**ETH zürich** [JSP: /showLearningAgreement.jsp] | Print | Help | Contact | de

Welcome > Study programme > Display Learning Agreement

### Learning Agreement of Christof Vadini (In process)

**Programme regulations** Master's Programme in Electrical Engineering and Information Technology  
**Tutor** missing

**Programme Information** - close

The student has to discuss the Learning Agreement (also known as "Tutor Agreement") with the tutor/track advisor before submitting it in myStudies. The Learning Agreement must be submitted in myStudies and approved by the tutor/track advisor no later than 4 weeks after the start of program (usually the fall semester).  
The Learning Agreement can be updated during the study period, but needs to be in the final version before the start of the Master thesis.  
Semester Projects, Internships in Industry, GESS Science in Perspective and the Master's Thesis are not part of the Learning Agreement.

- close

**Course** ☐ Not registered ☒ Registered ☐ Passed ☐ Repetition failed ☐ No more available  
**Sem** Semester A: Autumn Semester S: Spring Semester  
**Completion of mandatory courses** Declare how mandatory courses will be or have been completed: **Yes:** In this programme **Bachelor:** In the Bachelor or another ETH programme **Other university:** At another university  
**Not regular** No: Not planned in this programme  
Category assignment differs from that in the Course Catalogue.  
**Changes** **New:** Newly added, **Moved:** Moved to another category, **Modified:** Text modified, for external course units only.

Category	Number	Course	Title	Sem	ECTS credits			Completion of mandatory course	Not regular	Changes
					Planned	Needed	Missing			
Core Courses					0	24	24			
Specialisation Courses					0	40	40			
Electives					0	0				

Delete →

Back Edit Submit →

**Note:** you must submit a learning agreement for the **complete duration** of your studies, changes are possible in agreement with the tutor.

# myStudies – edit and submit a learning agreement

Once **all the courses** you wish to enrol for during the upcoming semesters are entered, your learning agreement is ready for discussion with your tutor.

**Note:** the learning agreement can only be submitted if you have a tutor. If you do not, an error warning (see picture) will appear.

The screenshot shows the 'myStudies' interface for 'ETH zürich'. The user is logged in as 'Christof Vadini (19-953-041) [Akademische Dienste]'. The page title is 'Edit Learning Agreement'. On the left, there is a sidebar with 'Programme regulations' and 'Programme Information'. The main content area shows the 'Learning Agreement of Christof Vadini (In process)'. A red error message box states: 'Error: The Learning Agreement can only be submitted when a tutor has been definitively assigned.' Below this, the 'Programme regulations' section shows 'Master's Programme in Electrical Engineering and Information Technology' with tutor 'Prof. Dr. G. Blau (Being clarified)'. The 'Programme Information' section contains instructions for the student. The 'Course' section shows a list of courses with their status (Not registered, Registered, Passed, Repetition failed, No more available). The 'Completion of mandatory courses' section shows a table with columns for 'Sem', 'ECTS credits', 'Planned', 'Needed', 'Missing', 'Completion of mandatory course', 'Not regular', and 'Changes'. The table lists 'Core Courses' and 'Specialisation Courses'. The 'Electives' section shows a list of courses. The 'Courses with no category' section shows a list of courses. At the bottom, there are buttons for 'Cancel', 'Delete', 'Back', 'Edit', and 'Submit'.

myStudies

ETH zürich

Welcome > Study programme > Edit Learning Agreement

### Edit Learning Agreement

Programme regulations: Master's Programme in Electrical Engineering and Information Technology  
Tutor: Prof. Dr. G. Blau (Being clarified)

Programme Information

The student has to discuss the Learning Agreement (also known as "Tutor Agreement") with the tutor/track advisor before submitting it in myStudies. The Learning Agreement must be submitted in myStudies and approved by the tutor/track advisor no later than 4 weeks after the start of program (usually the fall semester). The Learning Agreement can be updated during the study period, but needs to be in the final version before the start of the Master thesis. Semester Projects, Internships in Industry, GESS Science in Perspective and the Master's Thesis are not part of the Learning Agreement.

Learning Agreement of Christof Vadini (In process)

Error:

- The Learning Agreement can only be submitted when a tutor has been definitively assigned.

Programme regulations: Master's Programme in Electrical Engineering and Information Technology  
Tutor: Prof. Dr. G. Blau (Being clarified)

Programme Information

The student has to discuss the Learning Agreement (also known as "Tutor Agreement") with the tutor/track advisor before submitting it in myStudies. The Learning Agreement must be submitted in myStudies and approved by the tutor/track advisor no later than 4 weeks after the start of program (usually the fall semester). The Learning Agreement can be updated during the study period, but needs to be in the final version before the start of the Master thesis. Semester Projects, Internships in Industry, GESS Science in Perspective and the Master's Thesis are not part of the Learning Agreement.

Course

Not registered Registered Passed Repetition failed No more available

Semester A: Autumn Semester S: Spring Semester

Completion of mandatory courses

Declare how mandatory courses will be or have been completed: Yes: in this programme Bachelor In the Bachelor or another ETH programme Other university At another university

No: Not planned in this programme

Category assignment differs from that in the Course Catalogue:

New: Newly added, Moved: Moved to another category, Modified: Text modified, for external course units only

Category	Number	Course Title	Sem	ECTS credits	Planned	Needed	Missing	Completion of mandatory course	Not regular	Changes
Core Courses					0	24	24			
Specialisation Courses					12	40	28			
	227-0468-00L	Analog Signal Processing and Filtering	A	6						
	227-0552-00L	Maxwell, Einstein, and the GPS	A	6						
Electives					0	0				
Courses with no category										
	252-0535-00L	Advanced Machine Learning	A	10					X	
	227-0447-00L	Image Analysis and Computer Vision	A	6					X	

Cancel

Delete

Back Edit Submit

# myStudies – changing the learning agreement

In the following cases, you may be invited to change the learning agreement **by the tutor**.

- You have not discussed your learning agreement before submitting it (and the tutor requires you to change it).
- The initial learning agreement must be changed for any reason at a later point in time (with the agreement of the tutor).

myStudies Christof Vadini (19-063-041) [Akademische Dienste] Logout

ETH zürich [JSP: showLearningAgreement.jsp] Print Help Contact de

Welcome Study programme Ready Learning Agreement

### Learning Agreement of Christof Vadini (Changes requested by tutor)

Programme regulations Master's Programme in Electrical Engineering and Information Technology  
Tutor Prof. Dr. G. Blau

Changes required G. Blau (test.dozent@rektorat.ethz.ch) - 16.09.2022 10:34  
**as discussed in my office earlier today**

Programme Information

The student has to discuss the Learning Agreement (also known as "Tutor Agreement") with the tutor/track advisor before submitting it in myStudies. The Learning Agreement must be submitted in myStudies and approved by the tutor/track advisor no later than 4 weeks after the start of program (usually the fall semester). The Learning Agreement can be updated during the study period, but needs to be in the final version before the start of the Master thesis. Semester Projects, Internships in Industry, GESS Science in Perspective and the Master's Thesis are not part of the Learning Agreement.

Course ☐ Not registered ☒ Registered ☐ Passed ☐ Repetition failed ☐ No more available  
Sem Semester A: Autumn Semester S: Spring Semester  
Completion of mandatory courses Declare how mandatory courses will be or have been completed. Yes: In this programme Bachelor. In the Bachelor or another ETH programme Other university. At another university. No: Not planned in this programme.  
Not regular Category assignment differs from that in the Course Catalogue.  
Changes New: Newly added, Moved: Moved to another category, Modified: Text modified, for external course units only.

Category	Number	Course	Title	Sem	ECTS credits	Planned	Needed	Missing	Completion of mandatory course	Not regular	Changes
<b>Core Courses</b>						27	24				
	227-0104-00L	<input type="radio"/>	Communication and Detection Theory	S	6						
	227-2210-00L	<input type="radio"/>	Computer Architecture	A	8						
	227-0579-00L	<input type="radio"/>	Hardware Security	A	7						
	227-0125-00L	<input type="radio"/>	Optics and Photonics	S	6						
<b>Specialisation Courses</b>						41	40				
	227-0468-00L	<input type="radio"/>	Analog Signal Processing and Filtering	A	6						
	227-0622-00L	<input type="radio"/>	Applications of Thermal Modeling: From Hot Atoms to Heated Tissues	S	4						
	227-0602-00L	<input type="radio"/>	Maxwell, Einstein, and the GPS	A	6						
	227-0662-10L	<input type="radio"/>	Organic and Nanostructured Optics and Electronics (Project)	S	3						
	252-0626-00L	<input type="radio"/>	Statistical Learning Theory	S	8						
	227-0664-00L	<input type="radio"/>	Technology and Policy of Electrical Energy Storage	S	3						
	227-0455-00L	<input type="radio"/>	Terahertz: Technology and Applications	S	5						
	227-0438-00L	<input type="radio"/>	Wireless Communications	S	6						
<b>Electives</b>						0	0				

Back Edit Submit



# What goes into the learning agreement?

- Only **courses agreed upon** by your **tutor** will count for the degree, other courses go on a separate sheet, attached to the final transcript
- Science in Perspective courses (D-GESS), the internship, the semester project, and the master thesis do **not** go into the tutor agreement
- Even though they do not go on the learning agreement, do not forget to **enroll** for the **Semester Projects** and the **Master Thesis** (special section in myStudies "Projects/Papers/Theses).

# Performance Assessments

- Three types of performance assessments
  - **Session examination** (Winter session: January/February – Summer session: August), *Attention to registration/deregistration deadlines*
  - **End-of-semester examination (2 weeks before end of lectures until 2 weeks after end of lectures)**, *Attention to registration/deregistration deadlines*
  - Graded/ungraded **semester performance** (e.g. semester project or internship in industry (performance during semester), *Attention minimum/maximum allowed time/deadlines*
- Important notice: passed exams **cannot be re-taken**, failed exams can be re-taken once
- Special rules may apply regarding allowed (written) aids
  - Course catalogue > see "Performance assessment"
  - Lecturer/examiner



Useful information

# Computer hardware and software

- [Project Neptune](#) – during a short period (until October 3), laptops and tablet computers may be purchased through ETH at interesting prices
- [IDES](#) – ETH also offers software at very low cost, some products even for free.  
Remember: the use of non-licensed software is forbidden and subject to prosecution!



# IT-support at D-ITET – <https://infoposter.ee.ethz.ch>



A word cloud featuring various IT-related terms such as Ubuntu, Personal website, Development, Software, Quota, Managed Client, Chat, Let's Encrypt, Storage, Clients, Apache, itet-stor, Typo3, HTTPS, NFS, Windows, D-ITET, Databases, Student-Office, ssh, File-Server, Slurm, Python, Remote-Desktop, Debian, VPN, Printing, Baramundi, GitLab, WLAN, Linux, Consulting, FPApp, E-Mail, GPU Computing, P&S, Server, Samba, Container, MAC registration, Packaging, and Account. The words are arranged in a circular pattern with varying font sizes.

## IT related information

- ISG Website**  
The team, services & support
- ISG Apps**  
Helpful applications
- ISG Brochure**  
Introductory brochure
- Computing Wiki**  
User's handbook
- Student Computer Rooms**  
Where, reservation
- ISG Service Status Page**  
Up-to-date service status

## DISCOVER D-ITET AND ITS IT SERVICES



A square QR code with a white pixelated pattern on a dark blue background, used for quick access to D-ITET services.

## D-ITET related information

- D-ITET**  
The department website
- P & S**  
Registration for projects & seminars
- FPApp**  
Registration for lab courses
- Student Administration Office**  
Administrative support
- Microelectronics Design Centre**  
Design tools, know-how
- Project-based Learning (PBL)**  
Projects and hands-on practice
- Facility Services**  
Services for ETZ, ETL, ETF, ETA and GLC





**7 November 2023**  
**16.00–19.00**

**ETH Library**  
**InfoCenter**  
**Rämistrasse 101, HG**

- Get prepared to stay on time with your studies and your Master's thesis
- **Know where to find help** before the workload peaks
- Meet your peers, expand your **network**
- Enjoy **impro theatre** and a **free drink**

More information at:  
[library.ethz.ch/rock-your-masters](https://library.ethz.ch/rock-your-masters)

# Counselling at ETH and the D-ITET

- Course selection ? → your tutor
- Studies at D-ITET, incl. deadlines, failures at examinations etc. ? → coordinator of studies
- General questions regarding your arrival at ETH ? → [international student](#) support
- Time management / motivation ? → [ETH student coaching](#)
- Difficult phases / personal problems ? → [psychological counselling service](#) (free of charge and confidential)

# Code of conduct

« At D-ITET, we maintain an inclusive, open and friendly environment, where our students, employees and faculty can thrive and achieve their highest potential, based on mutual respect. To preserve this cordial environment, we do not tolerate misbehavior of any kind, including threats, violence, bullying, sexual harassment, discrimination, or dishonesty in study and in research. »

Prof. Jürg Leuthold, Head of Department

## Further information on the Web:

- Our principles
- What is “inappropriate behavior”?
- How to react?
- Contacts / support





# Enjoy your studies at ETH!





Zürich, September 18<sup>th</sup> 2023

amiv

Welcome Day







High School Politics



Events

**What we do**



Study Documents





High School Politics

# Representation of students' interests

Questions or complaints to  
[info@amiv.ethz.ch](mailto:info@amiv.ethz.ch)



# Offers and Activities

- Theater
- Poker- / Jass tournament
- Sushi-Night
- Graduationparty
- Skiweekend
- Lasertag
- Beachvolleyball tournament

## Events







Quick Filter



Select department and semester

RESET

Department



Semester



D-ITET	1	2	3	4	5+
D-MAVT	1	2	3	4	5+
other	1	2	3	4	5+

Study Documents

[amiv.ethz.ch](https://amiv.ethz.ch)

More than 1000 summaries,  
old exams, etc.

Oral exams

Written recollections of  
oral exams

extremely useful when  
preparing for an exam

Oral exams?

Find protocols on  
the amiv website!

Submit one yourself  
and get a cash reward.  
More information on  
[amiv.ethz.ch](https://amiv.ethz.ch)



amiv

vsoeth

Fachverein  
Verband der  
Studierenden  
an der ETH



# Lounge



- Coffee machine
- Beer vending machine
- Table football
- Billiard table
- Mate tea machine

- Couches
- TV with game console
- microwaves



# AMIV committees



Bastli

LIMES

WOMEN\* IN ELECTRICAL  
AND MECHANICAL ENGINEERING  
AT ETH ZURICH

blitz

die Fachzeitschrift des amiv an der  
ETH



eeStec

ELECTRICAL ENGINEERING STUDENTS'  
EUROPEAN ASSOCIATION



# AMIV Kontakt.23:

## The Job Fair for Engineers!

**CLA & LEE Buildings**  
**10. & 11.10.2023, 11:00–17:00**



57 companies  
2 days  
Free CV-checks  
Free photo shoots  
Presentations &  
Workshops



## AMIV Kontakt.23:

**Presentations and Workshops  
with free Apéros!**

**Lateral entry into Software Engineering**

**Tuesday, 27.09.2023, 18:15, HG E 5**

**Career Misconceptions**

**Thursday, 04.10.2023, 17:15, HG E 5**

**Register on [amiv.ethz.ch/events](https://amiv.ethz.ch/events)**



# Join?

**veth**  
member

Teams

Board member

## Voluntary contributions for the Autumn Semester 2019

Note: If membership is selected, the personal and address data required for member administration and other club activities will be forwarded to the respective club.

	Yes	No
<a href="#">Solidarity fund</a> for foreign students (CHF 5.-)	<input checked="" type="radio"/>	<input type="radio"/>
<a href="#">SOSETH</a> membership (CHF 5.-)	<input checked="" type="radio"/>	<input type="radio"/>
<a href="#">VSETH</a> membership (CHF 10.-; for doctoral students CHF 35.-)	<input checked="" type="radio"/>	<input type="radio"/>

Save

# Upcoming events

1

## Ersti-Rallye

Wednesday, Sep 20

2

## Masterweekend

Sign-up today 6pm

Sep 29 – Oct 1



# More information on [amiv.ethz.ch](https://amiv.ethz.ch)

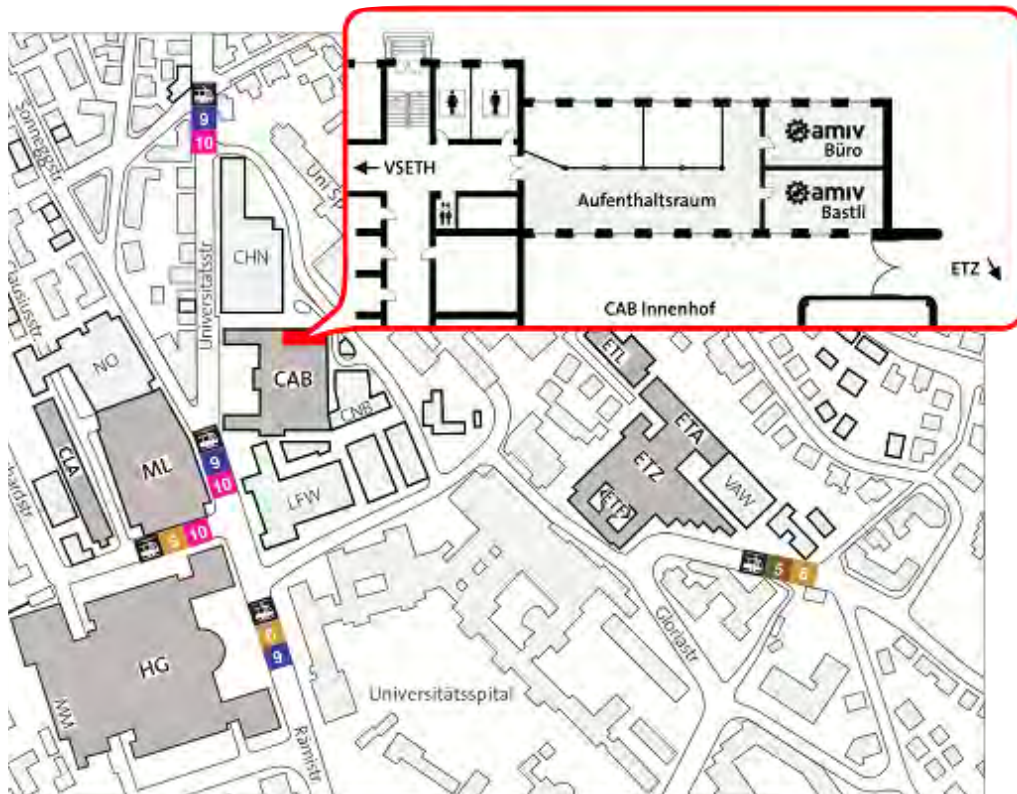


# Questions?





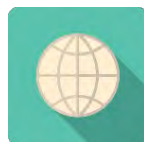
**AMIV and der ETH**  
**CAB E37**  
**Universitätstrasse 6**  
**8092 Zürich**



@amiv\_eth



facebook.com/AMIV.ETHZ



www.amiv.ch



info@amiv.ethz.ch

**veth**

Welcome Day 2023





# LINES

WOMEN\* IN ELECTRICAL AND MECHANICAL  
ENGINEERING AT ETH ZURICH



# About us

LIMES is the women\* student committee of AMIV, the association for students studying Information Technology and Electrical Engineering (D-ITET) and Mechanical and Process Engineering (D-MAVT).

\*Our use of the term "women" includes all individuals who identify as women, non-binary, inter- and transgender and face gender-based discrimination.





# Our mission

## Insight

We equip our members with invaluable industry insights prior to their completion of studies.

## Network

We connect women\* engineering students, fostering a strong support network that goes beyond their academic pursuits.



## Inspire

We seek to inspire high school students to pursue technical career paths.



# What we do



Events



Projects



Meetings



# Events

- Women\*'s Evening
- LIMES Talk
- Regulars' table (Stammtisch)
- Summer Cocktail Night
- LIMES Cup - A Soccer Tournament
- Excursions
- Workshops
- Hackathons
- Team Events
- Schülerinnen\*tag
- .. & many more!







# Upcoming Events 2023

- 20.09.** Ersti-Rallye LIMES Booth  
For all new joiners
- 28.09.** Welcome Aperitif  
Grab your free welcome drink!
- 30.09.** Workshop w/ ABB @WeTechTogether  
Join our workshop at the WeTechTogether Conference in Technopark Zurich
- 04.10.** Mentee-Mentor Dinner D-ITET  
Spaghetti Dinner for D-ITET exclusive!
- TBA** LIMES goes Google  
Let's visit the Google office together!
- 26.10.** Workshop w/ FemmelInvest  
Invest in yourself. In your financial education. In your future.
- 24.11.** Schülerinnen\*tag  
Inspire the next generation!
- 30.11.** Sensor-Challenge w/ Sensirion  
Compete against other students at the sensor challenge!
- TBA** Dinner Event w/ Belimo & ETH Juniors  
Evening with keynotes, talent acquisition scouts, drinks and dinner

# Projects



In total, 23 dispensers which dispense free tampons and pads are installed in women's and gender-neutral toilets on ETH campus.

The aim of the project is help normalize and eliminate the stigma surrounding the subject of menstruation.



# Meetings

Meetings are held bi-weekly during the semester on ETH campus.

You can simply come to one of our meetings and learn more about what we do  
- no strings attached!

The meeting schedule can be found on our website and social media.  
Snacks are provided.





# Become a member

Becoming a LIMES member is easy! If you are interested in joining our organization, write us or simply attend our next meeting to learn more. 😊

# Stay updated



<https://limes.ethz.ch>



@limes.eth



company/limes-eth



# Any questions?

Send an email to:  
[limes@amiv.ethz.ch](mailto:limes@amiv.ethz.ch)

