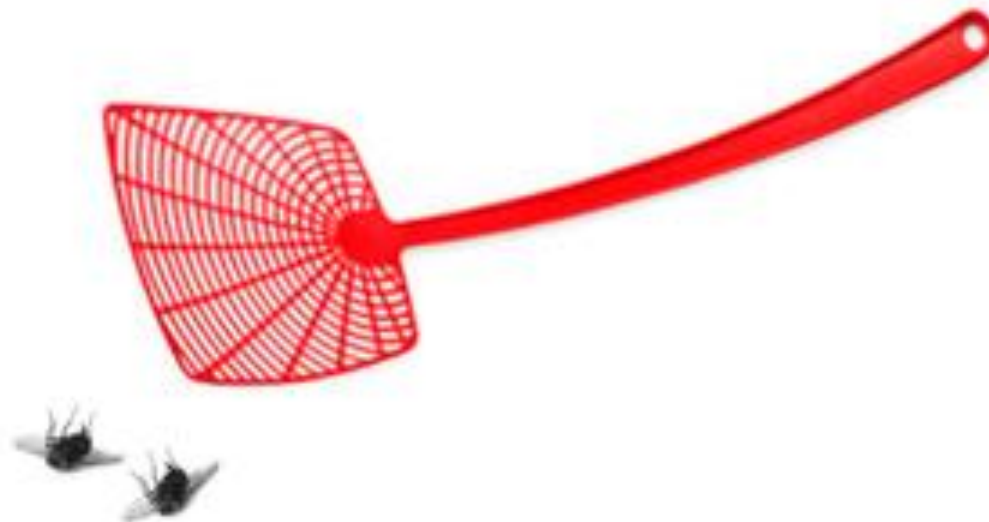


# Zwei Fliegen mit einer Klappe schlagen!

(2 Master-Abschlüsse in 5 Semestern!)

## Double Master Degrees im MSc Informatik



# Voraussetzungen

- Studium des TUM MSc Informatik
- **Bereits zum Bewerbungszeitpunkt soll eine belastbare Anzahl an TUM Credits** vorliegen (z.B. durch einen TUM Bachelor oder Leistungen aus dem Masterstudium) – in jedem Fall haben Studierende mit einem TUM Bachelor einen Bonus bei der Bewertung Ihrer Leistungen.
- Wir erwarten einen **guten bis sehr guten** Bachelor-Abschluss.
- Alle Double Degrees können nur im **August/September** begonnen werden. **Ausnahme:** Partner in Australien - University of Queensland (empfohlener Start im Februar)
- **Planung des Studienverlaufs:** vor dem Start im August/September (KTH und IPP) bzw. im Februar (UQ) im Ausland müssen Praktikum, Seminar und IDP abgelegt worden sein und zusätzlich weitere Credits nach Wahl (insgesamt ca. 60 ECTS an der TUM)
- Während des gesamten Double Degrees: immatrikuliert als Vollzeitstudent an der TUM

# Das DD-Modell im MSc Informatik

- min. 2 Mastersemester an der TUM (60 ECTS)
  - Interdisziplinäres Projekt, Praktikum und Seminar an der TUM + weitere Vorlesungen (inkl. 10 ECTS Theo)
- 2 Mastersemester im Ausland (60 ECTS)
  - Anerkennungen: 18 ECTS freie Wahl im Ausland + weitere 12 ECTS in Fachgebiete
- Gemeinsame Masterarbeit (30 ECTS)
  - Meistens an Partneruniversität
  - Gemeinsame Betreuung an TUM und Partneruniversität
  - [www.cit.tum.de/cit/doubleddegrees-informatics](http://www.cit.tum.de/cit/doubleddegrees-informatics)

# Bewerbung planen

- **Australien** – University of Queensland – MSc Data Science – im Januar 2024 für Februar 2025 bewerben.
  - => Start des Aufenthaltes frühestens im Februar 2025 in Australien
- **Aktuell ausgesetzt: USA** – vielleicht wieder im Herbst 2025
  - Frühzeitig um Förderung kümmern (Studiengebühren!)
- **Schweden und Frankreich** 15. Januar 2024 (ERASMUS Bewerbungsfrist)
  - Förderung auch über ERASMUS
  - Start des Double Degrees nur im Herbst möglich
  - Kenntnisse in Landessprache: franz. Partner min. B1 in Französisch bei Studienantritt in Frankreich. Für KTH siehe Slides.
- Für französische Programme auch „**strategische**“ Bewerbungen im 5. Bachelorsemester möglich – für andere Programme nicht

# Gründe für einen Double Degree

- Intensiver Einblick in Land und Kultur
- Möglichkeit eine Sprache fließend zu lernen
- Abschluss der Partneruniversität ist zugleich ein Zugang zu Gastland und dessen Wirtschaft
- Alleinstellungsmerkmal auf dem deutschen sowie internationalen, europäischen bzw. länderspezifischen Arbeitsmarkt
- Garantierte und vereinfachte Anerkennung

## UQ Double Degree – start in Februar 2025

- An UQ: Master Data Science - an TUM: MSc Informatik
- Studienstart im Februar 2025
- Bewerbungsfrist: 15. Januar 2024, 12:00 Uhr (mittags)
  
- UQ Master Program in Data Science:  
[https://my.uq.edu.au/programs-courses/program\\_list.html?acad\\_prog=5660](https://my.uq.edu.au/programs-courses/program_list.html?acad_prog=5660)

# Ausblick: Stand Double Degree mit University of Queensland – Master Data Science – **start in February 2025 – apply in January 2024**

## European Double Degree – TUM (TUM to UQ) – Preferred Option 1

Study Year of the DD	Semester of the DD (indicates the total duration)	Commencement Month	UQ	TUM	Comments
1	1	October		BSc Informatics	30 ECTS
	2	April		BSc Informatics	30 ECTS
2	3	October		BSc Informatics	30 ECTS
	4	April		BSc Informatics	30 ECTS
3	5	October		BSc Informatics	30 ECTS (stay abroad/internship)
	6	April		BSc Informatics	30 ECTS Students complete BSc Informatics in September
4	7	October		BSc/MSc Informatics	For regular IN.TUM semesters: An extra semester prior a <b>UQ double degree start in February</b> could be used by IN.TUM students to either do an internship or go abroad in their 5th semester during their bachelor's.
	8	April		MSc Informatics	
5	9	July		MSc Informatics	<b>60 ECTS</b> [incl. IN2106 practical course, IN2107 seminar, IN2334 Interdisciplinary Project (IDP), theory courses] Complete studies at TUM mid/end of February
	10	<b>Feb</b>	Master of Data Science		#8 units Commence studies at UQ mid/end of February
6	11	<b>Oct</b>	Master of Data Science		#8 units Complete studies at UQ end of December
	12	Feb	MSc Informatics Thesis/Project @TUM		30 ECTS Full semester thesis at UQ until July/August (6 months)

Entwurf / Draft

See Program: [https://my.uq.edu.au/programs-courses/program\\_list.html?acad\\_prog=5660](https://my.uq.edu.au/programs-courses/program_list.html?acad_prog=5660)

## TUM => UQ Pathway

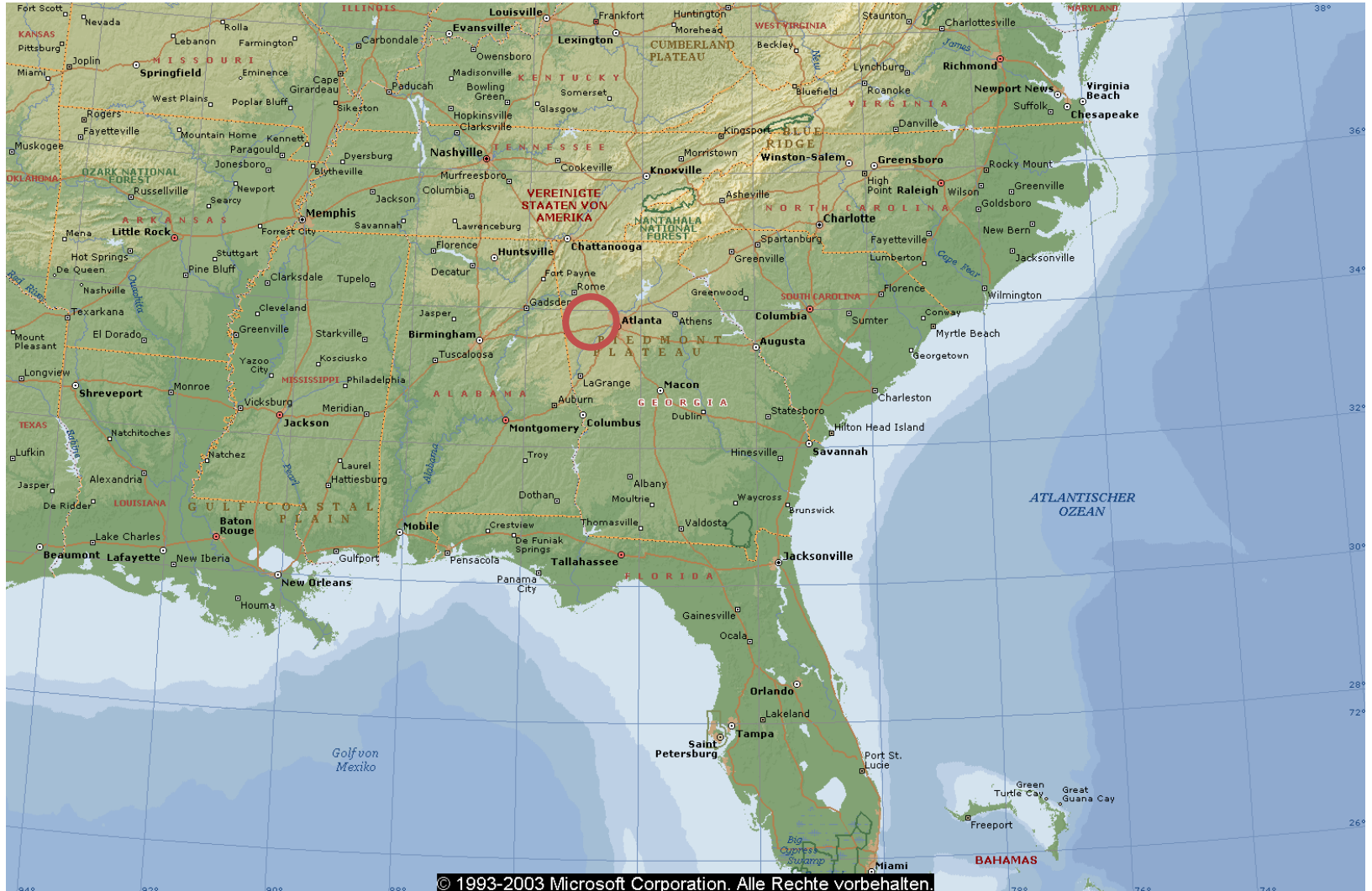
- Min. 60 ECTS vor UQ Studienstart im Februar 2025, ggf. auch mehr
- Im Wintersemester 2024/25 wegen Überschneidung der Semesterzeiten z.B. mit Praktikum, Seminar, IDP Projektteil (Vorlesung schon im SoSe 23) und ÜfG planen.
- Im WiSe 24/25 möglichst KEINE Vorlesungen (=Prüfungen) planen.
- UQ Studienstart inkl. Orientierungswoche bereits Mitte Februar (!) – lange Anreise einberechnen



# UQ Campus



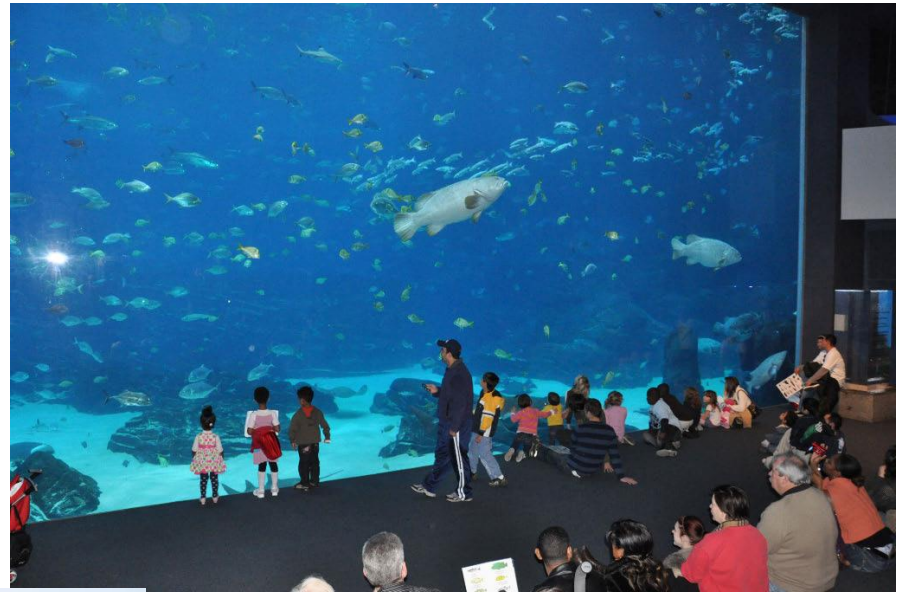
# GeorgiaTech - Atlanta



# Skyline of Atlanta



# Aquarium



Double Degree

Informatic

# Areas of College of Computing

- Computer Architecture
- Databases
- Information Security
- Programming Languages and Compilers
- Networks
- Software Engineering
- Systems (OS, Distributed Systems, Multi-core ..)
- Theory

# Programs

- MS in Computer Science
- MS in Information Security
- MS in BioEngineering\*
  
- PhD in Computer Science
- PhD in Algorithms, Combinatorics & Optimization\*
- PhD in BioEngineering\*
- PhD in BioInformatics\*

# Two Degrees

- Awarded degrees
  - Master of Science, TUM
  - Master of Computer Science, GIT
- Recommended study plan
  - WS and SS @TUM
  - Autumn and spring semester @ GIT
  - Thesis @ TUM
  - Requires at least 5 semesters
- In 2023/24 renewal of agreement

Application deadline	October 31 <sup>st</sup>			ECTS TUM	SCH GIT
Acceptance	January 15 <sup>th</sup>				
1. Semester	mid Oct. – mid Feb.	Courses	TUM	30	9
2. Semester	Mid Apr. – mid July	Courses	TUM	30	
Enrollment at GIT	Late July				
3. Semester	Sept. – Dec.	Courses	GIT	30*	12
4. Semester	Jan. – May	Courses	GIT		15
5. Semester	Oct. – Feb.	Thesis	TUM	30	0
				≥120	≥36



# Application and Funding

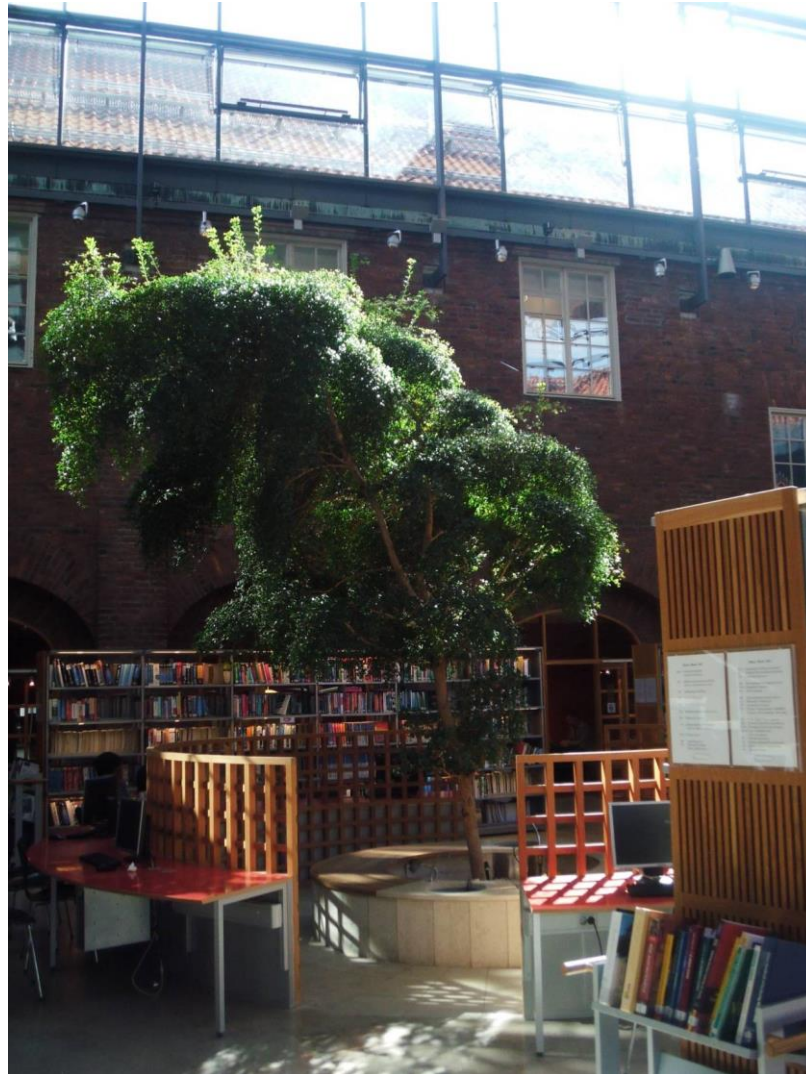
- Application possible for
  - Students with TUM credits at the time of application
  - Next deadline end of October 2024
  - Currently no agreement – needs to be signed in 2024 – should be decided in spring 2024
- Funding
  - Tuition per semester ~20.000\$
  - Students might be funded via assistantships
  - Stipends
    - Fulbright – Bewerbung Anfang August 2023
      - Maximilian Springer, University of Florida  
[http://www.kemper.in.tum.de/teaching/ws1112/hsufg/Florida\\_2011/financing.html](http://www.kemper.in.tum.de/teaching/ws1112/hsufg/Florida_2011/financing.html)
      - Travel, Partial, Full Grant (~30 T€)
    - DAAD Jahresstipendium – Bewerbung Ende September 2023  
<https://www2.daad.de/ausland/studieren/stipendium/de/70-stipendien-finden-und-bewerben/?detail=57503530>
    - Auslands-BAfÖG (120 €+up to 4600€ tuition per year)
- Contact
  - Prof. Michael Gerndt, [gerndt@in.tum.de](mailto:gerndt@in.tum.de)  
<https://www.ce.cit.tum.de/caps/mitarbeiter/michael-gerndt/>



# KTH: Kungliga Tekniska Högskolan, Stockholm



# KTH: Library



Double Degree Infoevent Dez 2023 - MSc  
Informatik

# Some facts about KTH



- founded in 1927 (largest + oldest TU in Sweden)
  - about 14.000 students
  - 30% female students
  - Computing center PDC (parallel dator center)
- 
- **2 campuses:**
    - main campus, very central
    - Kista (ICT), about 30 minutes from main NW
  - more foreign students than any other university in Sweden

# More facts



Ranking worldwide (QS):

TUM: 60 (computer science 36)

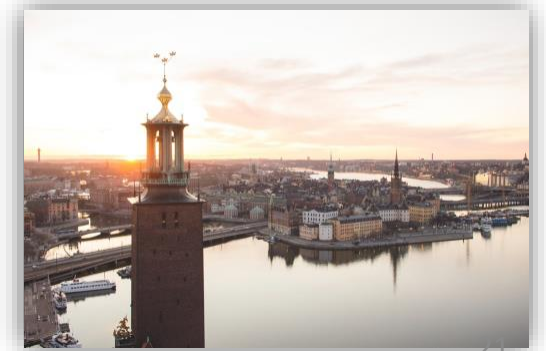
KTH: 92 (computer science 51-100)

## Stockholm:

- good public transport, history, culture, and business, surrounded by plenty of green space and blue water
- a lot to offer- from a bustling nightlife to 24000 islands to visit
- named the best city in Europe to live in

## Sweden:

- one of the safest countries in the world
- nearly 90% of the population speaks English.



# KTH: International



- almost 1000 incomings
- more than 100 nationalities
- very cosmopolitan environment
- EECS-school provides many opportunities to get to know other students through project assignments and social events

# KTH: Kungliga Tekniska Högskolan, Stockholm

## School of Electrical Engineering and Computer Science (EECS)

### Titel: Civilingenjör i Datateknik

- **At KTH: Students get three degrees:**
  - B.Sc (after 3 years)
  - M.Sc. (after another 2 years)
  - Ingenjör (after all in all 5 years)

# KTH

## **Main areas:**

- Theoretical Computer Science
- Software Engineering
- IT Security
- Visualization
- Machine Learning
- Computational Biology
- Speech and Sound
- Interaction Design and Media Technology
  
- Other areas or Master's programs upon request



# KTH

## Double Degree:

- students from TUM receive the title  
Civilingenjör i Datateknik
- 2 master semesters at TUM
- 2 master semesters at KTH
- **New:** KTH **no longer** requires DD Incomings to take extra 30 ECTS in Swedish language courses.
- common Master's Thesis either at KTH or at TUM or externally

# Step 1: Pick a Master Program at KTH EECS

- Computer Science
- Cyber Security
- Machine Learning
- Interactive Media Technology
- Information and Network Engineering
- Systems, Control and Robotics
- Communication Systems
- Embedded Systems
- Software Engineering of Distributed Systems
- Upon request maybe other Master tracks of EECS:  
<https://www.kth.se/en/eecs/utbildning/utbildning-i-elektroteknik-och-datavetenskap-1.770433>
- Double Degree Incoming at KTH:  
<https://www.kth.se/en/studies/exchange/double-degree-1.619496>

# KTH

- Set up an individual study plan of at least 60 ECTS scientific courses
- At least 42 ECTS should be within one master's program
- Approval by Program Director in EECS (after selection by IN.TUM)
- For application at TUM: Advantage to have Swedish language knowledge

# KTH

## Contact persons:

**TUM: Martina von Imhoff**

**student-exchange@in.tum.de**

**KTH: Malin Vestin and Manja Schubert**

**[exchange.in@eecs.kth.se](mailto:exchange.in@eecs.kth.se) & [dd@eecs.kth.se](mailto:dd@eecs.kth.se)**

# Institut Polytechnique de Paris (IPP)

The Institut Polytechnique de Paris is a world-class Institute of science and technology encompassing 5 prestigious French Engineering Schools (Grandes Écoles) – with 2 schools TUM CIT Informatics had **previously** closed a double degree in MSc Informatics:

- École Polytechnique
- Télécom Paris



**Institut Polytechnique de Paris**  
only one double degree agreement

# Ecole Polytechnique, France

## GUIDED BY PUBLIC INTEREST

### MILITARY AND HUMANIST HERITAGE

1794

École Polytechnique is founded at the height of the Age of Enlightenment



A humanist and progressive approach to science  
**to address the key challenges of the 21<sup>st</sup> century**

1804

Military status



L'X under the authority of the  
**Ministry of the Armed Forces**

Civic and military training  
**to shape responsible and committed leaders**

# A WORLD-CLASS INSTITUTION

---



**1<sup>st</sup>** (France)

**best Grande École of  
science and  
technology**

*In all French rankings*

**6<sup>th</sup>** (world)

**top university for the  
number of Nobel prizes  
per graduate**

*NATURE 2016*



**4<sup>th</sup>** (world)

**best university for the  
education of Fortune  
500 executives**

*THE 2017*



**22<sup>nd</sup>** (world)

**best university for  
graduate  
employability**

*THE 2017*

# Télécom Paris:

## The French leading graduate school in Digital

- **Founded in 1878 - The word Telecommunications invented here (1904)**
- **Is the 1<sup>st</sup> innovative graduate engineering school in ICT** under the aegis of the minister for Industry – a public school
- **Telecom Paris deals with all sciences & technologies for ICT:**  
Applied Maths, Computer Science, Networks, Communications, Electronics, Signal, data and Image Processing, as well as the study of the economic and social aspects associated with modern technology
- Provides Engineering training **at the highest standards: *Master of Sc. In Engineering – Master of Science – Post-master degrees – PhD***
- **Research and teaching at the highest international level** in ICT,  
**Closely connected to industry & economy** : Research contracts with industry
- **Highly international: 48%** international students, **160** partner universities abroad
- **High faculty Ratio : 1/10** (>160 full-time professors / 1,600 students)
- Holds **the 1<sup>st</sup> ICT Incubator in France**: Highly Innovative: **>430** sustainable companies & **3,000** jobs created in 20 years – **3** start-up per month – **20** patents/year – Research of International excellence (**A+**) .
- Situated in Paris-Saclay campus, **next to Paris**, France with an English speaking campus in **Nice** in the **1st European Technopole** ; it also shares a campus in **China (Shanghai)**
- **a distinctive ambition: *Innovating in a Digital World !***  
Aim to educate **leaders and entrepreneurs** in all fields of digital science and technology, in France and beyond



ICT: Information and Communication Technologies





# IP Paris - international campus near Paris



Atmospheric observatory



New research institutes



Airports  
Highways

Total R&D center



Mechanical engineering Institute



Regional Express Railway

Pedestrians  
(towards Palaiseau,  
Camille Claudel  
district, ONERA)

# A new building on the IP Paris campus from November 2019



30 Aout 2019 13:09:03



## Architects:

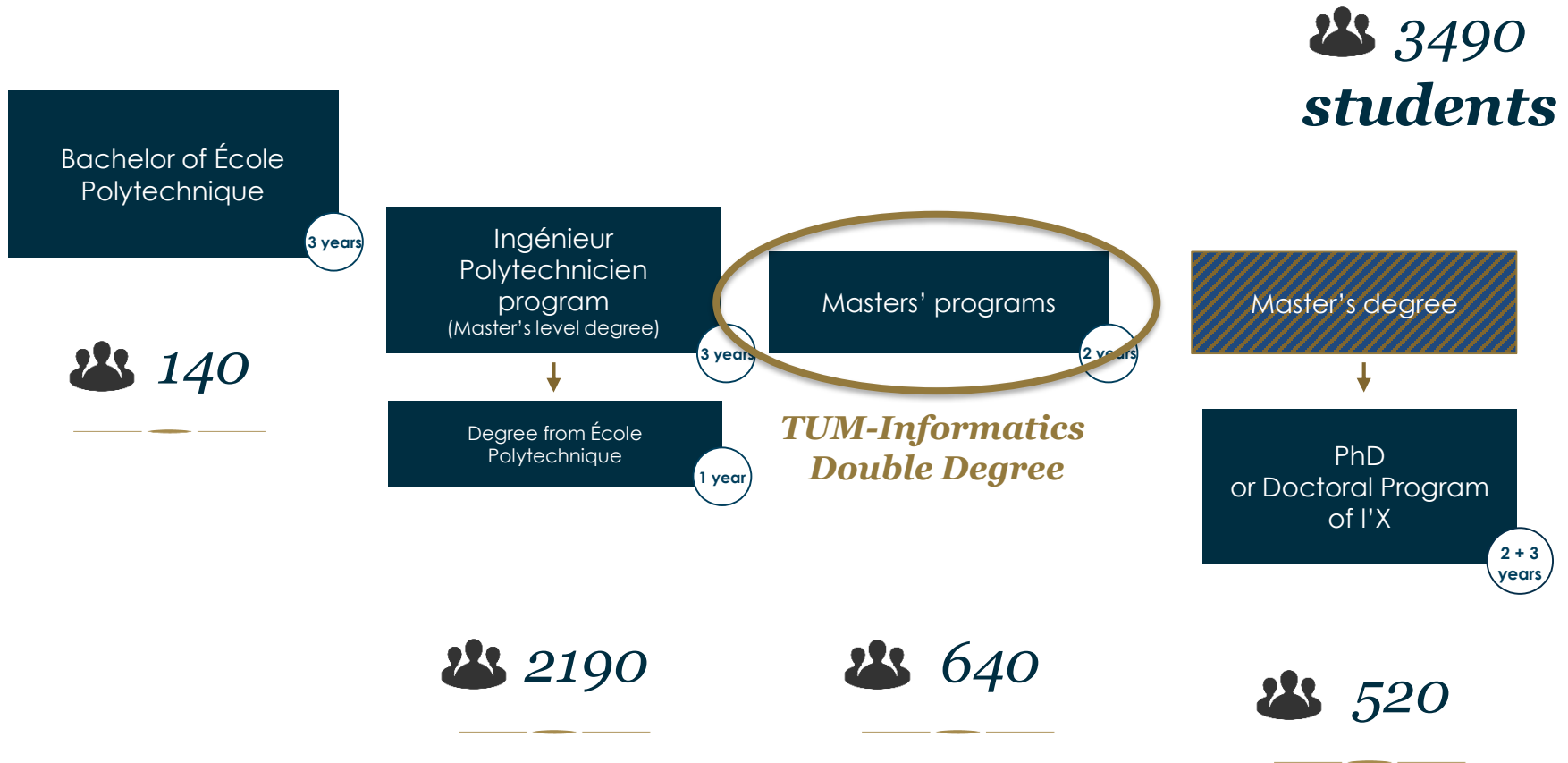
Yvonne Farrell

Shelley McNamara

Pritzker Architecture Price 2020



# EDUCATION (2019)



Each Grande Ecole in the IP Paris keeps their Ingénieur Polytechnicien program, so the common IP Paris Master's programs in Computer Science are relevant for the double degree with TUM.

# IP Paris - TUM DOUBLE DEGREE IN INFORMATICS

*5 semester Program*

*Flexible scheme*

*Specific scientific courses*

*Optional courses on* professional skills, innovation and entrepreneurship, languages, ...

*A specific track on Complex Computerized systems → COMASIC*

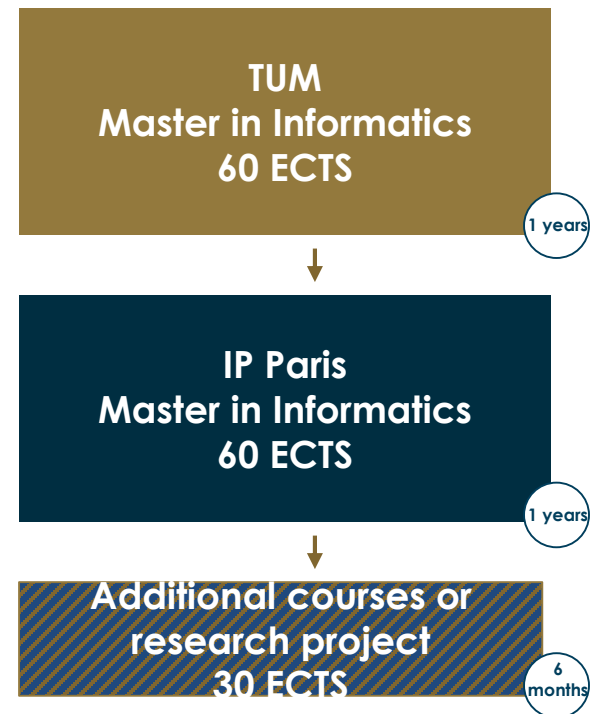
*Other available tracks (tbc)*

See: <https://www.ip-paris.fr/en/education/masters/computer-science-program>



INSTITUT  
POLYTECHNIQUE  
DE PARIS

Technical  
University  
of Munich



# Institut Polytechnique de Paris

## Empfehlung für Pathway

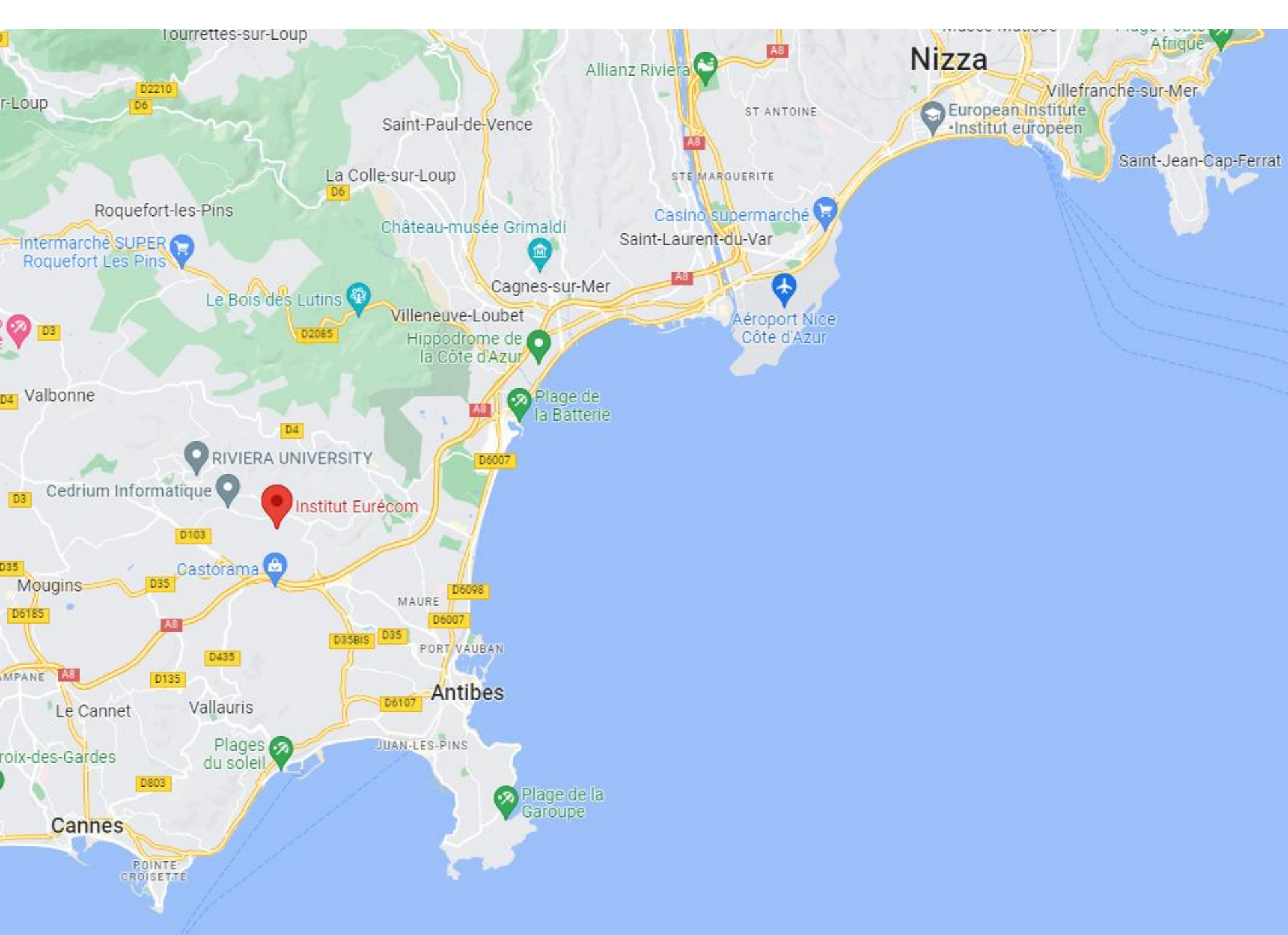
- 60 ECTS an TUM
- IP Paris Double Degree:
  - 1-2 Semester bzw. 6-7 Monate Kurse, dann Praktikum (kommt auf IP Paris Studiengang an)
  - Praxissemester (internship) in Frankreich – Praxisbezug ist das Besondere an einer Grande Ecole
  - Master Thesis
- Mention Informatique an IP Paris offen: <https://www.ip-paris.fr/en/education/masters/computer-science-program>
- Englische Masterprogramme, dennoch (min.) B1 Französisch zum Studienstart in Frankreich (nicht zum Zeitpunkt der internen Bewerbung)

# Double Degree with Eurecom (France)

- Master in Computer Science
  - Digital Security (Kontakte zu Lehrstuhl von Prof. Eckert)
  - Data Science
  - <https://www.eurecom.fr/en/teaching/masters-degree-msc-computer-science>
- Unterricht auf Englisch; jedoch Französisch B1 zum Studienstart (nicht bei Bewerbung) Pflicht.
- Vertragsverlängerung läuft (Interesse?)
  - Studienstart nur im September möglich

# Eurecom Site







# Double Degree Webseiten – TUM Informatik

[www.cit.tum.de/cit/doubleddegrees-informatics](http://www.cit.tum.de/cit/doubleddegrees-informatics)

Bewerbung für IP Paris, Eurecom, KTH  
Stockholm und UQ Brisbane

Montag, **15. Januar 2024, 12:00h** (mittags)