





Czech Technical University in Prague, CTU

České Vysoké Učení Technické v Praze,
ČVUT



SpaceMaster Consortium Universities



Luleå University of Technology LTU



Aalto University A



Cranfield University CU

Czech Technical University in Prague CTU



University of Toulouse UT3 Paul Sabatier



- Prague: historical, pleasant to live in, excellent public transportation, viable housing market for long-term rent – close to other European capitals
- CTU – top technical university in the CEE region- part of *EuroTeQ Engineering University 2030*
- First founded in 1707 by imperial rescript



- Currently 8 faculties: *Civil, Mech., **Elect. Eng.**, Nuclear Sci. & Physical Eng., Arch., Trans., Biomed., IT;*

17k+ students, 3599 academics, 1209 projects

- **Device Campus - Prague 6,**
- **Charles Square Campus - Prague 2 – strict city center**
- 8 dormitories



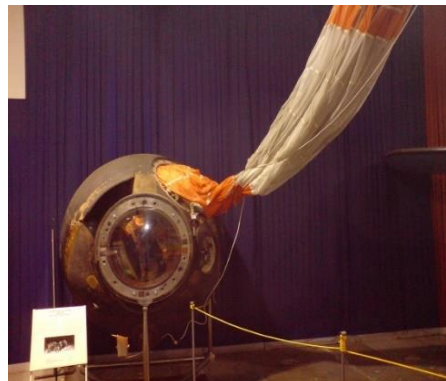
- vibrant student life: ~100 nationalities represented
- Erasmus Student Network ESN CTU (HQ Masarykova dormitory)
- CTU Space Research – student rocket team
- CTU promo





An interesting friend of the CTU

- **Vladimír Remek**
- Czech astronaut - CTU friend
- first, (and only), Czech(oSlovak) in space
- first 3rd (non US, non USSR) nation astronaut/cosmonaut
- 1978 Soyuz 28





Faculty of Electrical Engineering, FEL

Fakulta Elektrotechnická, FEE

- FEL - independent CTU department since 1891
- today consists of 19 departments:
(Department of Control Engineering and Department of Cybernetics)

<https://cyber.felk.cvut.cz/department/>

- ~4300 students, 430 PhD students, 420 teachers,



Department of Control Engineering

- DCE – main SpaceMaster host at FEE CTU
- Faculty: **66** (~6 professors, 5 docents, 6 researchers) + PhD students
- Bachelors, Masters & PhD education in Control Engineering
- Top-level theoretical and applied research
- Promotion of Technology and Science in Industry and Society
- Systems & Controls for engineering, physical, biological, medical, *etc.*
- Modeling, identification, control design, algorithms, software and hardware



Collaboration with local hi-tech industrial partners:

- **Honeywell, Honeywell Aerospace**
 - **Porsche Engineering**
 - **EATON European Innovation Center**
 - **Volkswagen**
 - **Škoda Auto**
 - **Siemens**
 - **KUKA**
 - **Rockwell**
- students encouraged to graduate in the industry
 - employment at a partner company

DCE Research Projects

- **Adaptive Cruise Control**
 - highway traffic control
- **SESAMO**
 - convergence of safety and security in embedded system architectures
- **BIOCENTEX**
 - Center of Excellence for Bioanalytical Technologies, (BioCentEx or BioCenTex)
 - research Center of Excellence grant by Czech Grant Agency (P206/12/G014)
- **ARRAYCON**
 - distributed control for smart structures
- **PROJEKT HERKULES (Horizon 2020)**
 - high-performance real-time architectures for low-power embedded systems





SpaceMaster: Czech Technical University team



Academic group:

Head Coordinator

Administrative Coordinator

Academic Coordinator

Prof. Ing. Michael Šebek, Dr.Sc

Ing. Martin Hlinovsky, Ph.D

Doc. Kristian Hengster Movric, Ph.D

Administration:

Ing. Kamila Krupková, Svatava Petrachová

Lecturers:

Doc. Ing. Petr Hušek, Ph.D

Doc. Ing. Martin Hromčík, Ph.D

Doc. Ing. Zdeněk Hurák, Ph.D

MSc Study Programme:

Cybernetics and Robotics, C&R, KyR

CTU SpaceMaster Associated Partners

- Honeywell Aerospace, Brno,
Global Fortune 100 software-industrial company



- ESC Aerospace, Prague
Leader in On-Board Software Satellite Support



CTU SpaceMaster Associated Partners

- EATON, European Innovation Center,

- Roztoky u Prahy

- one of the five major Eaton innovation centers

- cutting-edge research

- Developing safer and more effective systems

- We make what matters work*

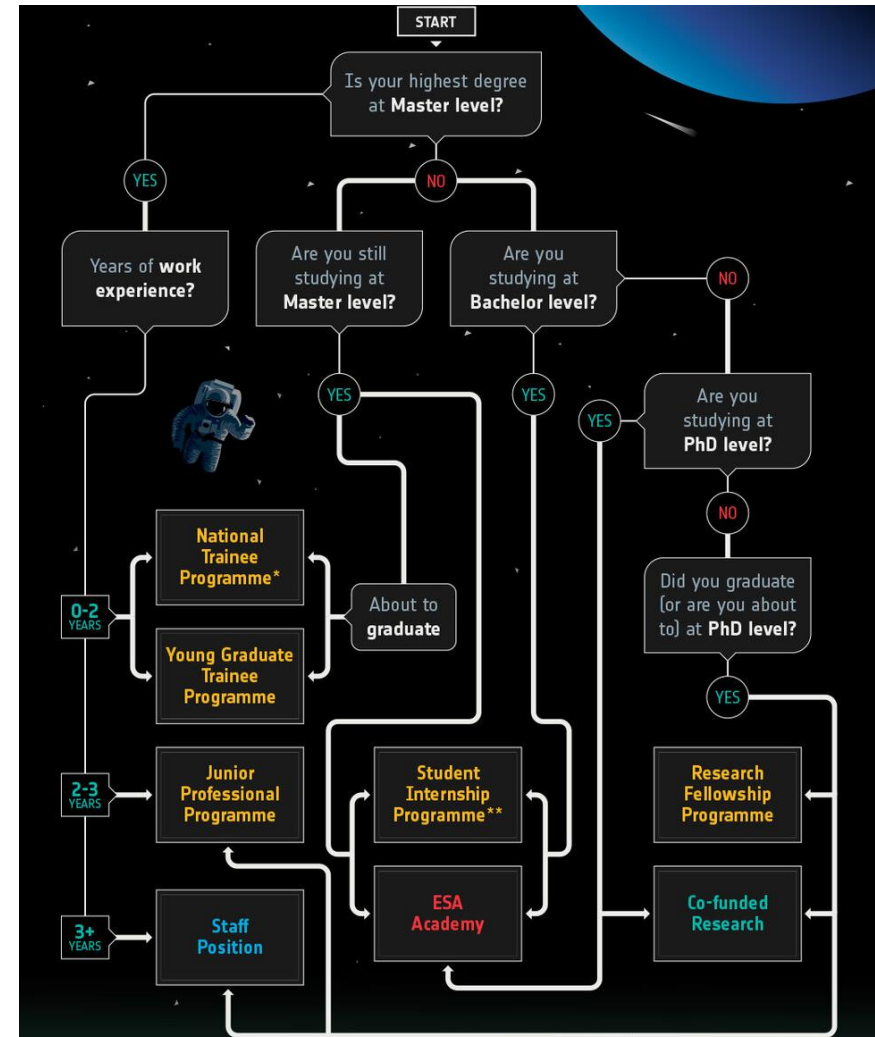


Powering Business Worldwide

- ESA BIC Czech Republic:

ESA Opportunities

- Apply directly for:
 - [Young Graduate Trainee Programme](#)
 - [National Trainee Programmes](#)
 - [Junior Professional Programme](#)
 - [Research Fellowship Programme](#)
 - [ESA co-funded research](#)
 - [Staff Vacancies](#)
- Register with one of the personal agencies such as for example [HE Space](#)



Intern with our startups!

- **Duration** – one or two semesters
- **Place** – whole of Czech Republic or remotely
- **Language** – EN or CZ
- **Areas** –
 - Business
 - Sales
 - Marketing
 - Engineering (mechanical, electrical, software)
 - Programming



APPLY TO ESA BIC!

- Your idea
- Your team
- Your company
- Your future

- **ESA BIC will help you start!**





BUSINESS
INCUBATION
CENTRE

Czech
Republic



@ESABIC CZ



jihočeský kraj



CTU Courses at FEL

- General information-recommended curriculum passage





Device Campus-Central Technical library

Courses at DCE

- SpaceMaster engineering track – Cybernetics&Robotics Study Program
(*combining electronics and informatics*)

Compulsory Courses:

- Control systems for aircraft&spacecraft BE3M35CSA
- Space systems modelling&identification BE3M35SSM
- Individual Project BE3M35IDP
- Optimal and robust control design BE3M35ORC
- Master Thesis BE3M35DIP

Wide selection of Elective Courses;

Major courses 30ECTS, Master Thesis 30ECTS

Courses at DCE

- 3rd and 4th semester- course syllabi and links

1. Control Systems for Aircraft and Spacecraft; 7 ECTS

Control Systems for Aircraft & Spacecraft, **BE3M35CSA**, 3rd semester

Lecturer: doc. Ing. Martin Hromčík



2. Space Systems, Modeling and Identification; 7 ECTS

Space Systems Modeling&Identification, **BE3M35SSM**, 3rd semester

Lecturer: doc. Ing. Petr Hušek



3. Optimal and Robust Control Design; 8 ECTS

Optimal and robust Control Design, **BE3M35ORC**, 4th semester

Lecturer: doc. Ing. Zdenek Hurak



4. Individual Design Project; 8 ECTS

Individual design project, BE3M35IDP, 3rd semester

Topics for one-semester project for visiting students are available online.

Prospective students should contact the supervisor by email well in advance

The student will be registered only after the approval from the supervisor.

Number of credits will be allocated individually according to each specific project.

Some of the projects are also available for internship during Summer!

5. Diploma Thesis; 30 ECTS

Diploma Thesis, BE3M35DIP, 4th semester

List of diploma thesis topics is available online.

Czech Technical University in Prague

- FEE Research

- Visual Recognition Group

- prof. Ing. Jiri Matas

- Smart Driving Solutions

- doc. Ing. Tomas Hanis

- Advanced Algorithms for Control & Communication

- doc. Ing. Zdenek Hurak

- Advanced Dynamics & Complex Systems

- doc. Kristian Hengster-Movric

- Multi-robot Systems Group

- doc. Ing. Martin Saska



FEE Research Groups

- DCY:

Visual Recognition Group

– prof. Ing. Jiri Matas



- DCE:

Smart Driving Solutions

– doc. Ing. Tomas Hanis



AA4CC Advanced Algorithms for Control & Communication

– doc. Ing. Zdenek Hurak



ADACS Advanced Dynamics & Complex Systems

– doc. Kristian Hengster-Movric



- DCY:

Multi-robot Systems Group

– doc. Ing. Martin Saska





Organizational Notes 2025-2026

Up-to-date CTU Academic Calendar

– **Winter semester 2024** –Sep 18, 2024 - Feb 7, 2025 – 14 weeks

Exam terms- Jan 15 – Feb 7, 2025 – 6 weeks

Winter break – Dec 23, 2025 – Jan 6, 2022

– **Spring semester 2024** –Feb 12 - Jun 28, 2025 – 14 weeks

Exam terms – May 27 - Jun 28, 2025 – 6 weeks

Master comprehensive final exams- Jun 10-Jun 28, 2025

Leaving dormitories –summer holidays

Diploma project –

Diploma thesis assignment – Feb 2025

Diploma thesis submission – May 2025

Defense of diploma thesis and State Exam – Jun 2025

– 2 supervisors (CTU, LTU) – necessary to communicate with both!











Questions?

feel free to contact

[Martin Hlinovsky](#)

[Kristian Hengster-Movric](#)

Delighted to welcome you in Prague!!

