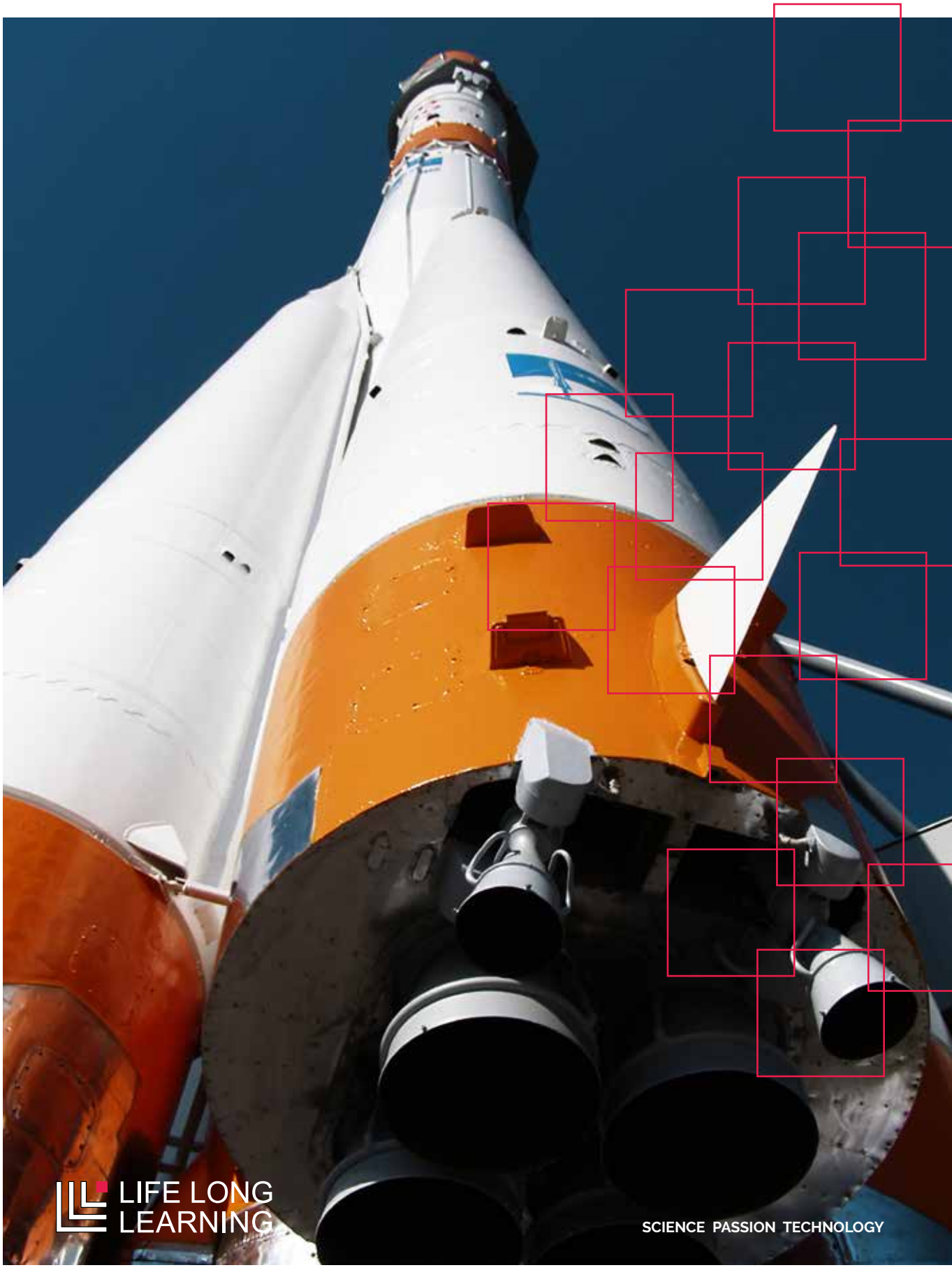
SpaceTech

Master of Engineering (MEng) in Space Systems and Business Engineering

TU Graz

> Master's Programme | Postgraduate



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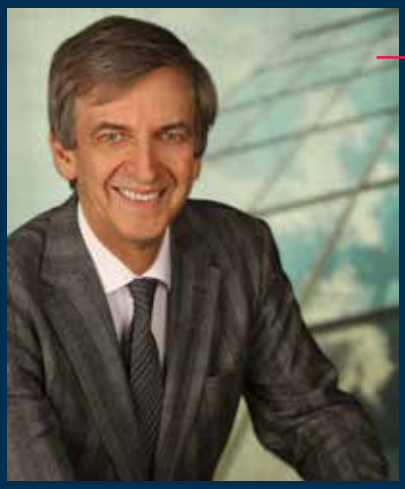


Otto Koudelka

Programme Director

The key for success

Systems engineering is key to success for every space mission. Combined with business engineering the SpaceTech professional post-graduate master's programme offers unique opportunities for young professionals who wish to extend their knowledge and skills in all relevant areas of space systems.

Working together across cultures and countries

Our participants are hand-picked, mid-career men and women, supported by governments or industries around the globe, to attend SpaceTech with the goal of developing necessary capabilities to become technical leaders in their organizations. During the 18 month program we get to know each other very well, and, in many cases, form lasting friendships. The best part of the SpaceTech program for me is seeing our participants meet and exceed their goals to become leaders of their organizations, working together across cultures and countries.

Wiley Larson

Programme Co-Director

Eugen Svoboda

Svoboda Entwicklungs GmbH & Co KG

A very unique experience

The combination of lectures by distinguished internationally renown personalities from the space community with the creation of a virtual start-up company made the study project a very unique experience. What made me as an Austrian entrepreneur choose this programme was that it makes such efficient use of lecture time while providing in-depth theoretical knowledge. Another distinct advantage is that it allowed us to establish many professional contacts across the whole of Europe. Moreover the interdisciplinary discussions and tinkering were not just enriching but also very exciting.

Our Central Case Project – a kind of virtual Space start-up – dealt with the subject of commercially profitable mobility on the Moon. Not an easy subject, but all the more rewarding for that! One of the results was the design of a small lunar rover which – and this is rather special – is even able to jump surprisingly far! As an Austrian I am of course very proud that this Master's programme is now based in Graz.

SpaceTech

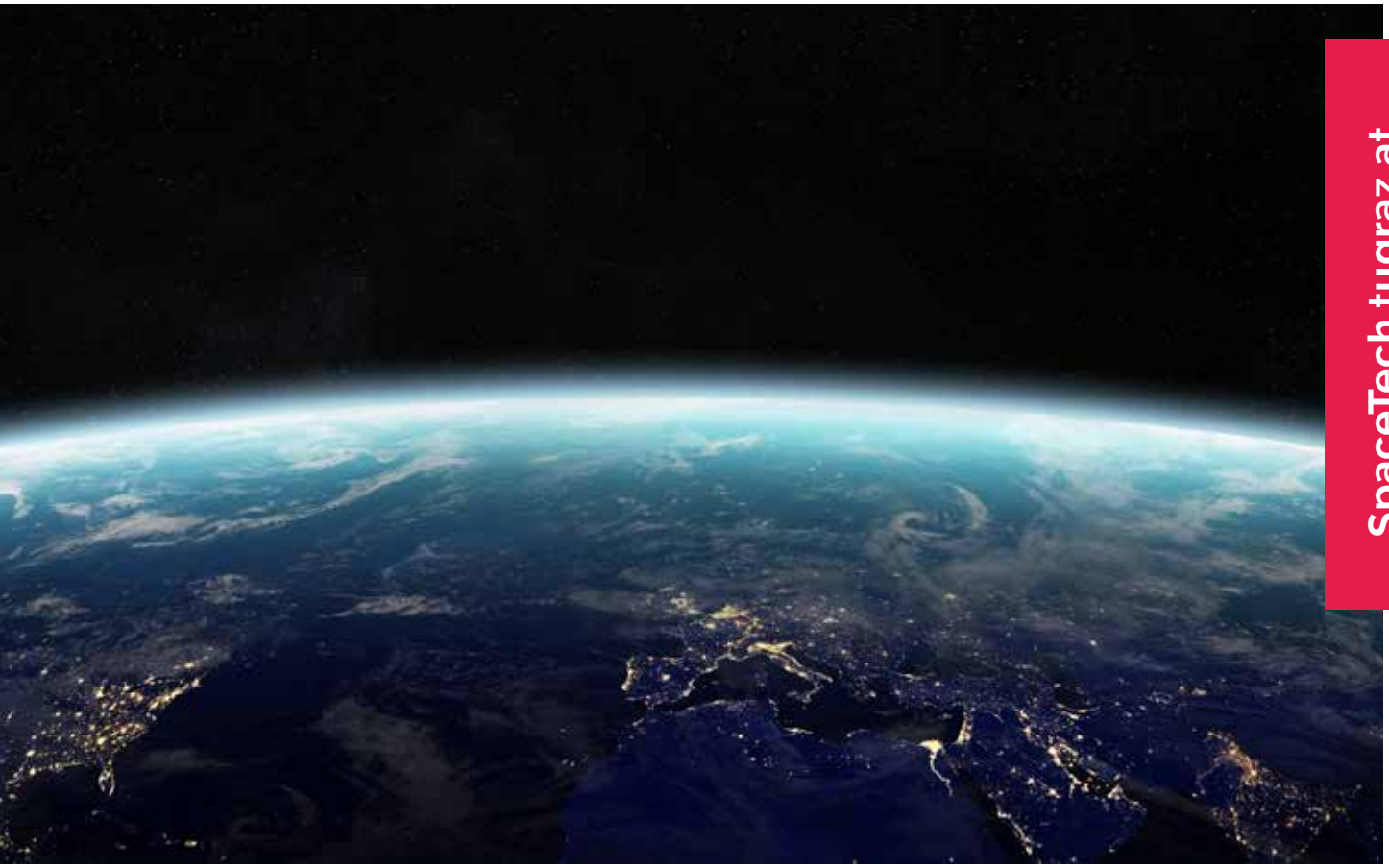
Business of Science

The global space sector continues to grow at a fast pace, introducing new technical challenges, exciting business opportunities and the need for technical leaders that can manage the associated systems engineering and project management.

Space activities, by their very nature, are global and multi-national. Civil and commercial organizations that compete in the space arena are in dire need of highly-capable technical leaders (systems engineers and project managers) that are able to organize and manage diverse teams, identify and cultivate potential business cases, maintain technical integrity across the business or project and meet schedule at or below cost.

The SpaceTech Masters in Space Systems and Business Engineering began in 1997 and has graduated several hundred technical leaders that have gone on to lead large international space projects, serve as CEOs and Center Directors in their organizations. TU Graz‘ success in conducting this program is due in great part to the ability to identify and select, high-potential, mid-career engineers from within Government and industry organizations, and bring them together in a very intense, stimulating learning laboratory to practice and hone their skills.

The international space and Earth science communities have requested that the Business of Science (BoS) Module be added to the SpaceTech Program to provide project scientists, aspiring Principal Investigators (PIs), systems engineers and project managers with the opportunity to work together as a team to create credible space and Earth science proposals.
This module provides participants with the skills necessary to identify science goals and objectives; hypotheses and tests; necessary measurement requirements; appropriate instrument and sensor requirements; projected performance; as well as top-level space mission requirements, all aimed at establishing a credible science baseline for potential funding.



SpaceTech.tugraz.at

Degree

MEng SpaceTech - Master of Engineering
in Space Systems and Business Engineering

Language of instruction

English

Facts

Locations

Graz University of Technology (Austria)
CNES Toulouse (France)
ESA ESOC Darmstadt (Germany)
DLR GSOC Munich (Germany)
ESA ESRIN Frascati (Italy)
ESA ESTEC Noordwijk (The Netherlands)

Schedule

please see: SpaceTech.tugraz.at

Attendance Fee

€ 34,000.- (no VAT)
exclusive costs for travelling,
accommodation and meals

Contact and Registration

Dipl.-Ing. Peter Schrotter
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TU Graz Life Long Learning

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Detailed information

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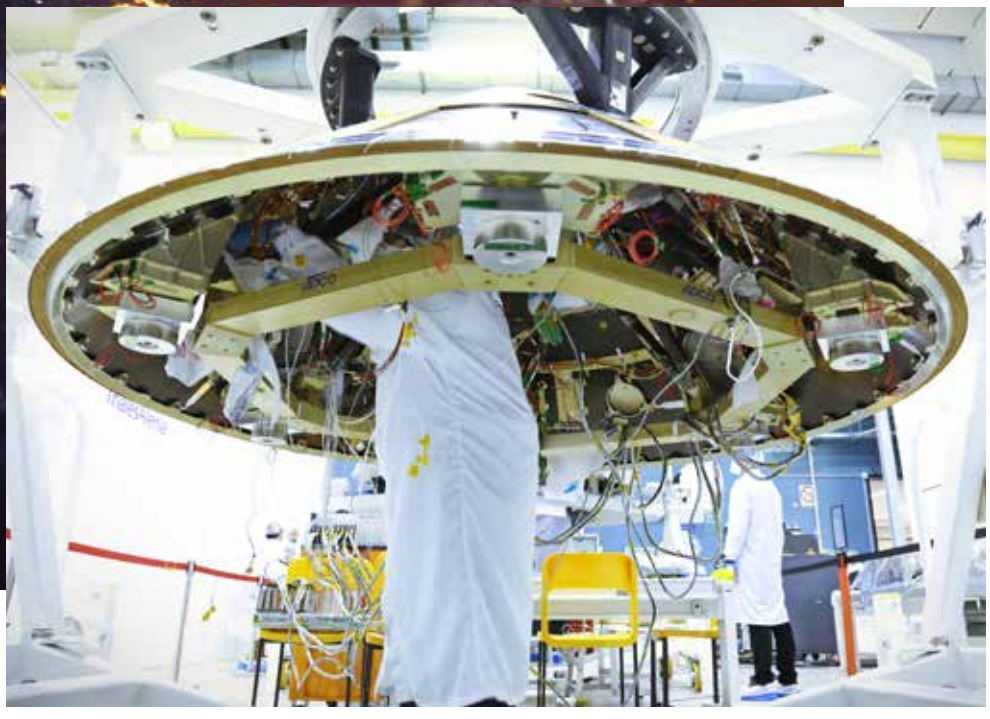

Admission Requirements

- Bachelor‘s or Master‘s degree in a technical, scientific, economic or legal field, or similar academic qualification
- Minimum 3 years of professional experience working in the aerospace sector or a closely related field
- Proficiency in English
- Application Deadline: 15 January 2022
- Start of the programme: March 2022

Modules

Project Management

Business Engineering

Selected Topics

Space Mission Analysis and Design

Telecommunications

Earth Observation

Systems Engineering

Navigation

Human Space Flight

Interpersonal Skills & Leadership Development

Central Case Project (CCP)

Future Fields of Work

After completion of the SpaceTech programme, the graduates will have acquired extensive knowledge in the areas of space systems and business engineering, learned how to apply this knowledge to solve real problems, and gained practical experience in individual and multicultural teamwork. This will have prepared them to perform a variety of leadership and management roles in the international aerospace field, whether in industry or in various space agencies.

Teaching Method and Language

The SpaceTech programme is designed with both online and presence session elements. This is intended to allow participants to take the course in parallel with their normal jobs. It also features, as an important area of particular emphasis, a Central Case Project on which all participants work, both individually and collectively. All lectures, documentation, and examinations are in English.

Target Audience / Participants

International mid-career professionals seeking top-level expertise in space systems and business engineering

Calender

SpaceTech 2022

Preparatory Online Course

Mar 2022
4 Weekends

Presence Session 1

@ **TU** Graz, Austria

Apr 2022
2 Weeks

Presence Session 2

@ **CNES** Toulouse, France

Jul 2022
2 Weeks

Presence Session 3

@ **ESA ESOC** Darmstadt, Germany

Oct 2022
2 Weeks

Jan 2023
2 Weeks

Presence Session 4

@ **DLR GSOC** Munich and **EAC** Cologne, Germany

Apr 2023
2 Weeks

Presence Session 5

@ **ESA ESRIN** Frascati, Italy

Jul 2023
2 Weeks

Presence Session 6

@ **ESA ESTEC** Noordwijk, Netherlands

Sep 2023
1 Week

Presence Session 7

@ **TU** Graz, Austria

LIFE LONG LEARNING

We care about continuing education.