



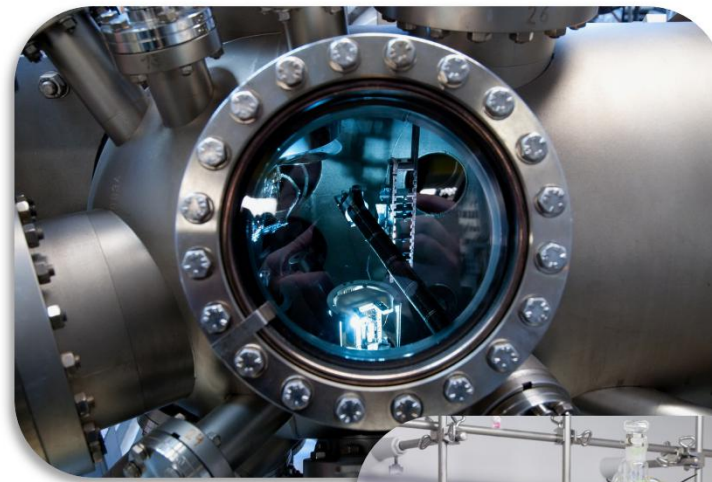
Internationalization of Research Joint Programs

Session 2, Yuri Luiz Reis Leite
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www.tuwien.at

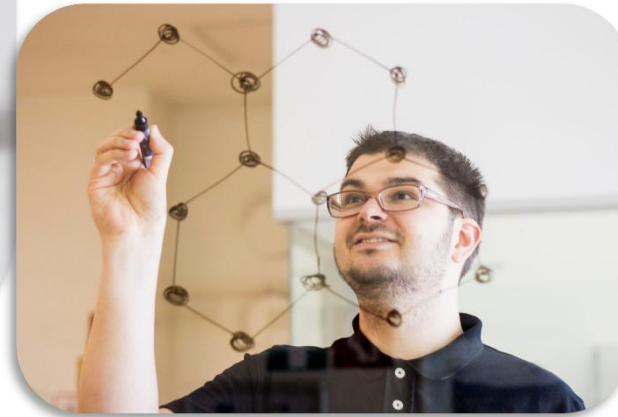
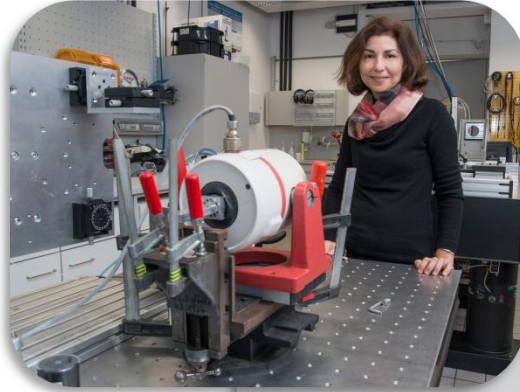
I´ll talk about:

- **Introduction TU Vienna**
- **Cooperation UFRGS - TU Vienna**
- **Experiences in Implementing Joint Master Programs (EUE)**
- **Perspectives for Joint Master / Multiple Degree Studies**



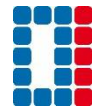
- | | |
|------|---------------------------------------------|
| 1815 | Founded as „k. k. polytechnisches Institut“ |
| 1919 | Admission for women |
| 1975 | Renamed to „Technische Universität“ (TU) |
| 2015 | 200-year-anniversary |

Research at TU Wien – From Basic Research to Applications



Research

- **Five Research Focus Points:**



Computational Science and Engineering



Quantum Physics and Quantum Technologies



Materials and Matter



Information and Communication Technology



Energy and Environment



Additional Fields of Research:

www.tuwien.ac.at/forschung/forschungs_schwerpunkte/additional_fields

Research

- **Cooperation | Overview**

- **On campus**

- Cooperation & research centres connecting faculties
- TU doctoral programmes

- **With Austrian universities**

- TU Austria (Graz University of Technology, University of Leoben)
- Vienna Scientific Cluster (University of Vienna, University of Natural Resources and Life Sciences, University of Innsbruck, Graz University of Technology, University of Leoben, Alpen-Adria-Universität Klagenfurt)

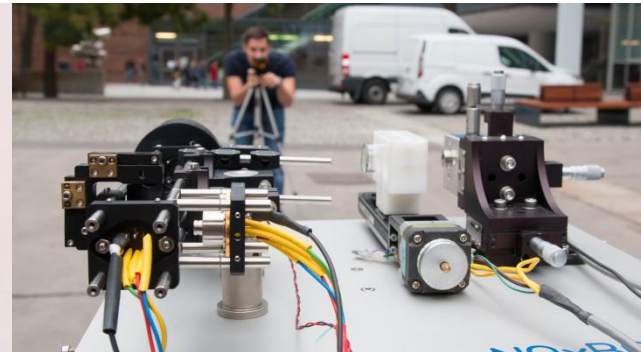


Research

- **Cooperation | Overview**

- **Bi- und multilateral**

- Christian Doppler-Labors
- FWF doctoral programmes
- National research networks of the FWF
- Special research fields of the FWF
- COMET programmes of the FFG
- Laura Bassi Center
- Ludwig Boltzmann Institute



Research

- **Infrastructure**

- X-ray Center (XRC)
- Analytical Instrumentation Center (AIC)
- NMR-Spectroscopy Center
- TRIGA Mark-II (Reactor)
- Center for Micro- and Nanostructures (ZMNS)
- VSC - Vienna Scientific Cluster, High Performance Computing
- USTEM - Center for Electron Microscopy
- Low Temperature Facilities

Teaching at TU Wien – Imparting Competence



Teaching

Teaching at TU Wien

The education offered by the TU Wien is rewarded by high international and domestic recognition. The chances for graduates for getting an attractive employment are very prosperous. The high demand for graduates of the TU Wien from economy and industry, governmental as well as research institutions are manifest evidence for this.

Wide Range of Studies

The TU Wien offers 18 bachelor-, 31 master- and 3 doctoral programs.

Since October 1, 2006, the study programs have been taught as bachelor and master programs, according to the Bologna process.

Teaching

Bachelor Programs

Architecture

QS Ranking Top 100

Civil Engineering

Electrical Engineering and Information
Technology

Computer Sciences

QS Ranking Top 100

Mechanical Engineering

Regional Planning and Development

Technical Chemistry

Technical Mathematics

Technical Physics

Chemical and Process Engineering

Surveying and Geoinformation

Business Informatics

Mechanical Engineering - Economics

Teaching

Master Programs

Architecture

Civil Engineering

Biomedical Engineering

Electrical Engineering

Across faculties

Materials Sciences (066 434)

Biomedical Engineering (066 453)

Technical Chemistry

Technical Mathematics

Technical Physics

Computer Sciences

Mechanical Engineering

Regional Planning

Chemical and Process Engineering

Surveying and Geoinformation

Business Informatics

Mechanical Engineering - Economics

Teaching

Doctoral Programmes

- TU Wien offers three doctoral programs
- Doctoral Program in Technical Sciences
(„Dr. techn.“)
- Doctoral Program in Natural Sciences
(„Dr. rer.nat.“)
- Doctoral Program in Social and Economic Sciences
(„Dr. rer.soc.oec.“)



Teaching

Students 1/2

Program	30.000
Architecture	5,903
Biomedical Engineering	363
Business informatics	996
Civil Engineering	2,476
Computational Logic	6
Computer Sciences Management (discontinued)	13
Economics – Mechanical Engineering	2,034
Electrical Engineering	2,791
Individual Studies	28
Informatics	5,524

Teaching

Students 2/2

Program	absolut
Material Science	91
Mechanical Engineering	2,314
Process Engineering	721
Regional Planning	1,268
Surveying and Geoinformation	357
Teacher Trainings	208
Technical Chemistry	1,549
Technical Mathematics	1,451
Technical Physics	1,953

Mobility



Mobility

International cooperations and mobility

Partner universities

The TU Wien has bilateral agreements with more than **70** universities around the world.

Membership in **academic networks**:

- **ASEA-Uninet** (Southeast Asia)
- **Eurasia-Pacific Uninet** (China, Central Asia, Russia)
- **ATHENS** (Advanced Technology Higher Education Network)
- **4 x TU** (TU Bratislava, TU Budapest, TU Prag, TU Wien)
- **Technical Universities of European Capitals**

Mobility

- Membership in **international subject-specific academic networks:**

- **EUPEN** (European Physics Education Network)
- **ECTN** (European Chemistry Thematic Network)
- **LE:NOTRE** (Thematic Network in Landscape Architecture)

- **Mobility and scholarship programmes:**

- **ERASMUS** (Mobility of students and teaching staff: EEA-countries, 250 bilateral agreements)
- **ERASMUS Mundus** (Mobility of students, graduate students, teaching staff: Russia)

- **Master Program taught in English:**

Biomedical Engineering
Building Science and Technology

- **TUW-Summer University**

Organisation

Faculties

Architecture and Planning

Civil Engineering

Electrical Engineering and Information Technology

Informatics

Mechanical and Industrial Engineering

Mathematics and Geoinformation

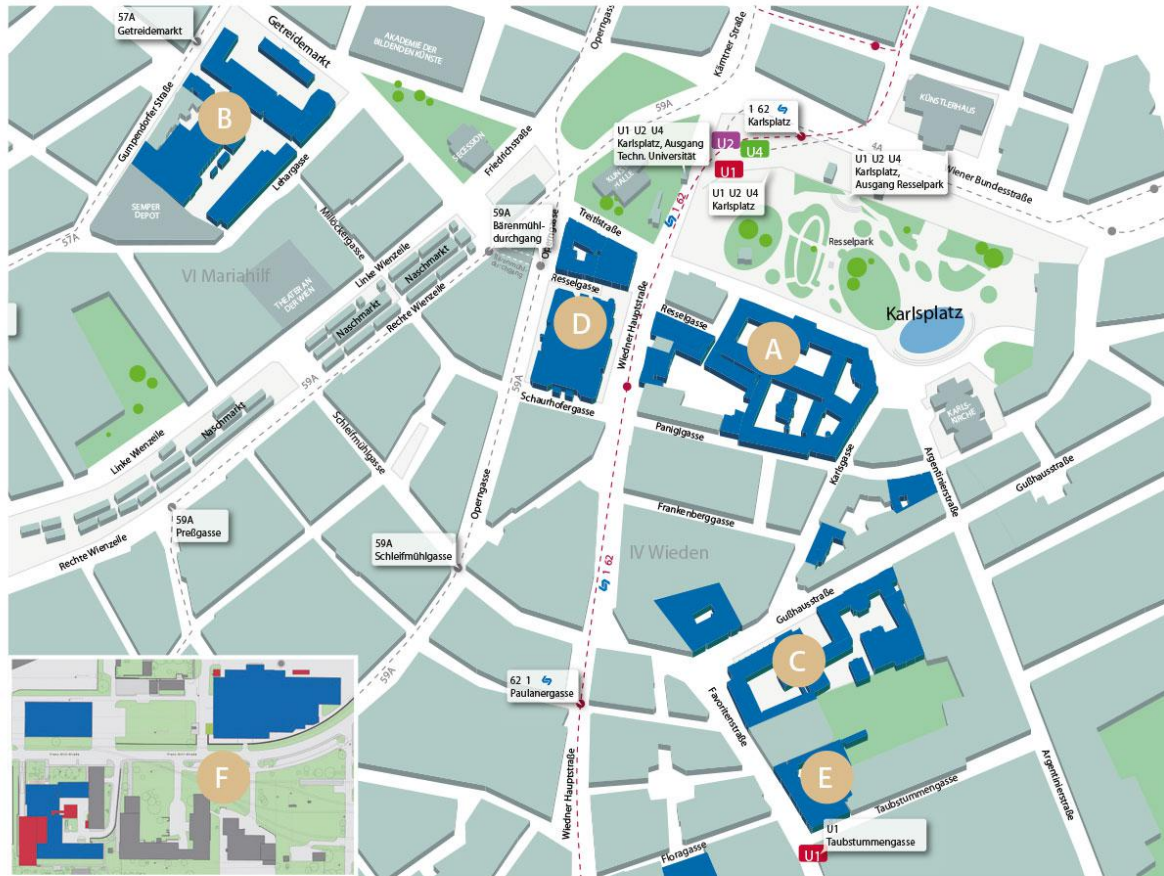
Physics

Technical Chemistry

Location



Location



- A Campus Karlsplatz
(4., Karlsplatz 13)
- B Campus Getreidemarkt
(6., Getreidemarkt)
- C Campus Gußhaus
(4., Gußhausstraße 25-29)
- D Campus Freihaus
(4., Wiedner Hauptstraße 8-10)
- E Campus Favoritenstraße
(4., Favoritenstraße 9-11)
- F Science Center
(3., Franz-Grill-Straße 3)

Facts & Figures 1/2

Finances*

357 Mio. €	turnover
233 Mio. €	balance sheet total

Rooms

> 9.000	rooms
290,000 m ²	total area

Staff*

2,602	scientific staff
1,140	non-scientific staff
4,783	total staff

Facts & Figures 2/2

Library*

1,4 Mio.	book stocks
> 3,8 Mio.	Web-Server/Access to library services (virtual visits)

Students**

29,377	
thereof 28.2%	women

Alumni**

3,098	first and second degrees
<i>thereof 1,496</i>	<i>bachelor programs</i>
<i>thereof 1,100</i>	<i>master programs</i>
<i>thereof 190</i>	<i>diploma programs</i>
<i>thereof 312</i>	<i>doctoral programs</i>

UFRGS/TU-WIEN Agreement



Established 2006

Transformative Infrastructures





MEMUD | ERASMUS+

Middle European Master of Urban Design



Co-funded by the
Erasmus+ Programme
of the European Union

MEMUD (Middle European Master of Urban Design)

- a joint master program for urban design
- involving the Technical University Vienna (TU Vienna)
- University of Ljubljana (UL)
- University of Split (UNIST)

With this orientation, the program seeks to enter new fields of employment and enhance the job opportunities of graduates on the other.

MEMUD Problems for Joint Master

- Accreditation in the chamber of architects / planners needs to fulfill different requirements
- Not every partner offers the same bachelor background (architecture / urban design)
- Some partners need to teach in their national language
- Different amount of credits required for a joint master (university / national regulations)

Legal frames, when combined with professional accreditation processes are even in Europe still not matching.

UFRGS/TU-WIEN Expected Problems

- Bachelor is not equivalent in credits (years)
- Master is not professional oriented but theoretical (small PhD)
- Accreditation in the chamber of architects / planners needs to fulfill different requirements.
- Need to teach in national language



Thank You!
Obrigado!

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