TU Wien Informatics

Dedicated to Excellence.
Committed to Society.

Informatics

TU Wien

Technology for People

Founded in 1815, TU Wien is Austria's largest research and educational institution in the field of technology and natural sciences.

More than 4,000 scientists work in five main research focal areas at eight faculties. 26,000 students are enrolled in 56 degree programs.

As a driver of innovation, TU Wien strengthens the business location, facilitates cooperation and contributes to the prosperity of society.

TU Wien is part of

- Vienna Scientific Cluster (*soon* Austrian Scientific Cluster)
- TU Austria (TU Wien, TU Graz, Montanuniversität Leoben)

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TU Wien
Technology for People

8 Faculties

- Architecture & Planning
- Civil and Environmental Engineering
- Electrical Engineering & Information Technology
- **Informatics**
- Mathematics & Geoinformation
- Mechanical & Industrial Engineering
- Physics
- Technical Chemistry

5 Research Focal Areas

- Computational Science and Engineering
- Quantum Physics and Quantum Technologies
- Materials and Matter
- **Information and Communication Technology**
- Energy and Environment

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TU Wien Informatics

Historical Milestones

1815   On 6 November, the k.k. Polytechnisches Institut (Imperial and Royal Polytechnic Institute) is officially opened, aka TU Wien today.

1954   The Mathematics Laboratory is founded by Vienna Technische Hochschule (TH).

1955   Austria's first "Modern Computing Technology" course starts.

1970   The **Informatics curriculum is introduced.**

1971-74 Werner Kuich, Manfred Brockhaus, Wilhelm Barth, and Helmut Kerner are appointed Professors.

1987   Ina Wagner becomes the faculty's first female professor.

2004   On January 1 and after decades of calls for a stand-alone Department of Informatics, the 2002 University Act provides the legal and organisational framework to formally establish the **Fakultät für Informatik**.

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The People
Our Faculty in Figures

78	**Professors** (32 Full + 33 Associate + 13 Assistant)
1	Kurt Gödel Visiting Professor
94	Postdoc Researchers
234	Predoc Researchers
13	Senior Lecturers
81	External Lecturers
73	Student Staff
73	Administrative Staff

Faculty
2023

December 2022

Informatics

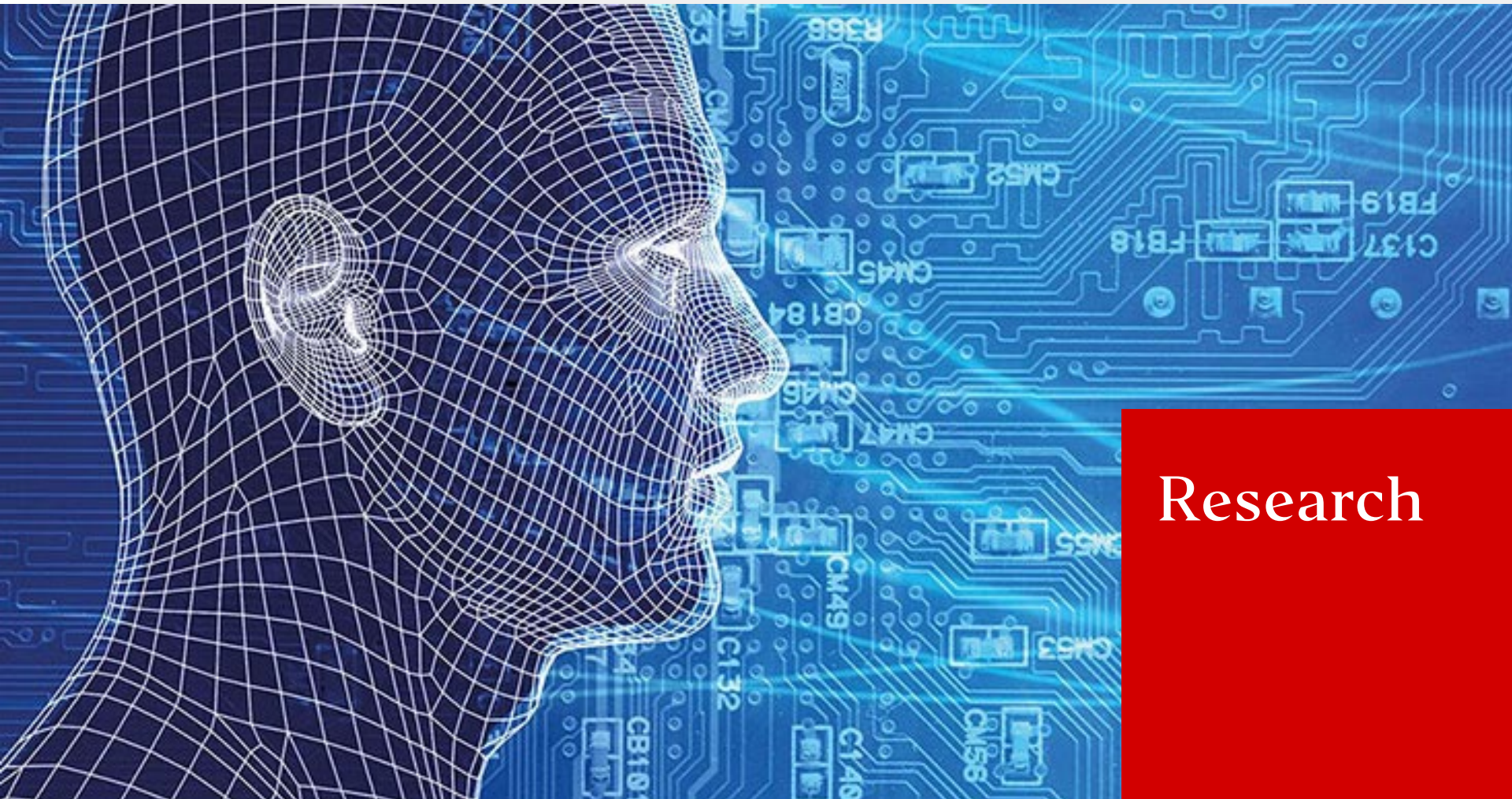# Side Step – Gender Statistics @ Professor Level (April 2023)

8 women *out of* 32 Full Professors (25%)

6 women *out of* 33 Associate Professors (18%)

7 women *out of* 13 Assistant Professors (53,8% ☺)
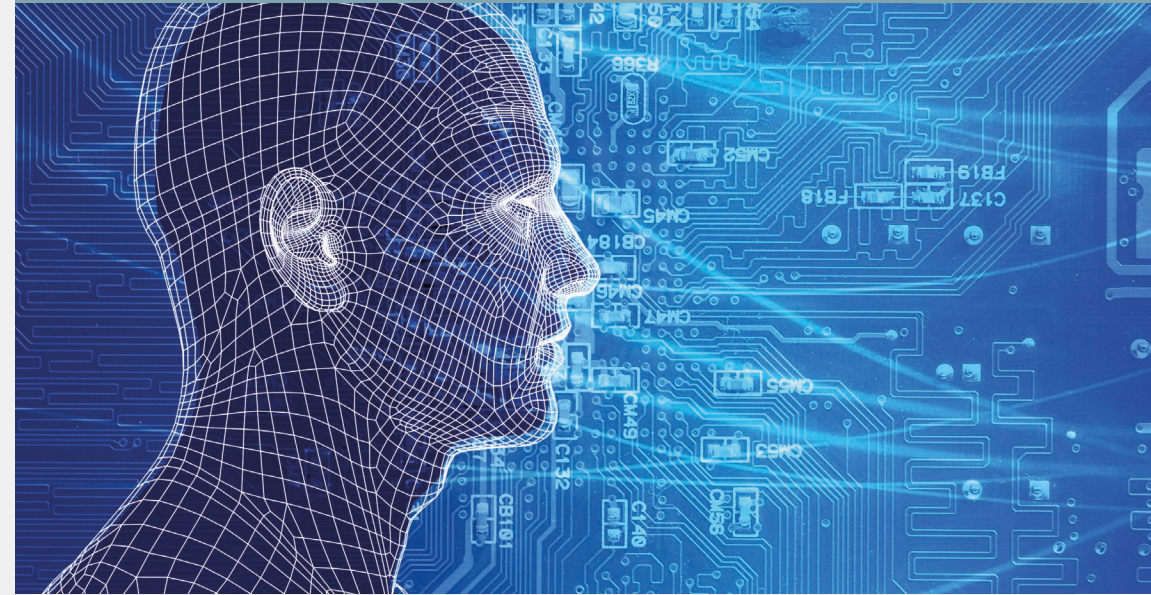- ✓ + 4 via excellence program from rectorate in 2025
- ✓ + 1 via decision of the dean in 2025

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Research

Research Foci

- Computer Engineering

- Logic and Computation

- Visual Computing and Human-Centered Technology

- Information Systems Engineering

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Research Units

Computer Engineering
- Cyber-Physical Systems
- Embedded Computing Systems
- Automation Systems
- Parallel Computing

Visual Computing & Human-Centered Tech.
- Computer Vision
- Computer Graphics
- Virtual and Augmented Reality
- Artifact-based Computing and User Research
- Human Computer Interaction
- Visual Analytics

Logic and Computation
- Algorithms and Complexity
- Databases and Artificial Intelligence
- Knowledge-Based Systems
- Formal Methods in Systems Engineering
- Theory and Logic
- Security and Privacy
- Artificial Intelligence Techniques

Information Systems Engineering
- Software Engineering
- Distributed Systems
- Business Informatics
- Data Science
- Compilers and Languages
- Machine Learning

Informatics

Research Units

Computer Engineering

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- Embedded Computing Systems
- Automation Systems
- Parallel Computing

Logic and Computation

- Algorithms and Complexity
- Databases and Artificial Intelligence
- Knowledge-Based Systems
- Formal Methods in Systems Engineering
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- Security and Privacy
- Artificial Intelligence Techniques

Visual Computing & Human-Centered Tech.

- Computer Vision
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- Virtual and Augmented Reality
- Artificial Intelligence Computing and User Research
- Human Computer Interaction
- Visual Analytics

Information Systems Engineering

- Software Engineering
- Distributed Systems
- Business Informatics
- Data Science
- Compilers and Languages
- Machine Learning

Crosscutting Areas:
- AI, ML and Data Science
- Cybersecurity
- Digital Humanism
- Sustainability in CS

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R&D Cooperations

Cooperations in Basic Research and Applied Research with Industry (selected list)

Advanced Computational Design
FWF Special Research Programme (SFB) / Michael Wimmer

LogiCS@TUWien
EC Marie Skłodowska-Curie COFUND Doctoral Programme / Stefan Szeider

Center of AI and ML
TUW Interfaculty Cooperation Center / Stefan Woltran

Semantic and Cryptographic Foundations of Security and Privacy by Compositional Design
FWF Special Research Programme (SFB) / Matteo Maffei

Vienna Cybersecurity and Privacy Research Cluster
Interuniversity Research Cluster / Matteo Maffei

Vienna Graduate School on Computational Optimization
FWF Doctoral Programme / Nysret Musliu, Günther Raidl

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R&D Cooperations (cont'd)
Cooperations in Basic Research and Applied Research with Industry (selected list)

ABC Austrian Blockchain Center
COMET Center of Competence / Matteo Maffei

AI and Optimization for Planning and Scheduling
Christian Doppler Laboratory / Nysret Musliu

Blockchain Technologies for the Internet of Things
Christian Doppler Laboratory / Matteo Maffei (Stefan Schulte)

Center for Digital Production
COMET Center of Competence / Christian Huemer, Wolfgang Kastner

ETN on Domain Specific Systems for Info Extraction and Retrieval
European Training Network / Allan Hanbury

Recommender Systems
Christian Doppler Laboratory / Julia Neidhardt

Secure Business Austria
COMET Center of Competence / Andreas Rauber, A Min Tjoa

Security and Quality in Production Systems
Christian Doppler Laboratory / Stefan Biffl (Edgar Weippl)

Virtual Reality und Visualisierung
COMET Center of Competence / Eduard Gröller, Werner Purgathofer

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Research & Innovation at Informatics @ TU Wien

- Bilateral AI (CoE)
- Center for AI&ML
- LogiCS@TUWien
- Explainability
- Digital Humanism

AI & ML

- Security (SFB)
- Vienna Cybersecurity & Privacy Research Cluster (ViSP)
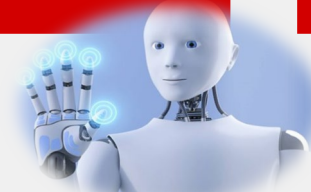- Ethical Hacking

Security & Privacy

- Computational Design (SFB)
- Center for Geometry and Computational Design
- Mixed Reality Labor
- Construction 4.0

Visual Computing & Computer Graphics

- Autonomous Systems
- Center for Digital Production
- Pilot Factory 4.0

I4.0 & Robotics

- Modelling and Simulation
- Smart Buildings
- Smart Cities
- Smart Communities

Smart Infrastructures & Internet of Things

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Teaching

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Studying with Us

Study programs

5	Bachelor Programs
1	Excellence Program Bachelor with Honors
1	Extension Curriculum Digital Skills
8	Master Programs
2	Double Master's Degree Programs
9	Doctoral Colleges

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Bachelor Programs

- Business Informatics

- Computer Engineering

- Media Informatics & Visual Computing

- Medical Informatics

- Software & Information Engineering

„Informatik"
(Winter term 2023)

- Excellence Program Bachelor with Honors
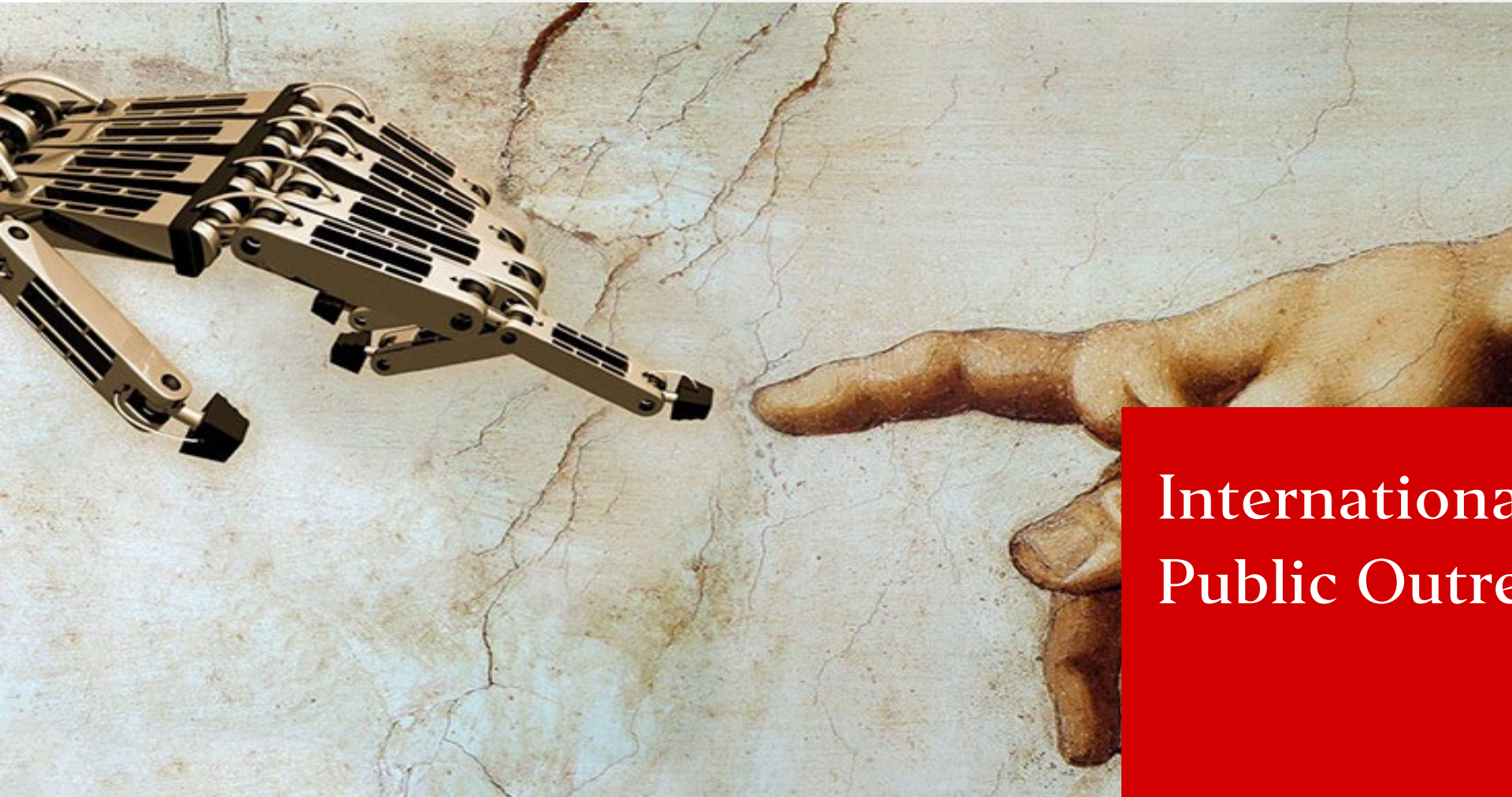
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Master Programs

- **Business Informatics** (in English)

- **Computer Engineering** (in English)

- **Data Science** (in English)

- **Logic and Computation** (in English)

- **Medical Informatics**

- **Media and Human-Centered Computing** (in English)

- **Software Engineering & Internet Computing**

- **Visual Computing**

- **Double Diploma, TU Wien/INSA Lyon**
- **Double Master's Degree Program IT Security, TU Wien/TU Darmstadt**

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TU Wien Informatics Doctoral School

9 Doctoral Colleges

- **Geometry and Computational Design** (TU Wien)

- **Logical Methods in Computer Science** (FWF)

- **Resilient Embedded Systems** (bmbwf)

- **Smart Industrial Concept!** (TU Wien + Industry)

- **Safety and Security in Industry Research** (TÜVA)

- **Secure and Intelligent Human-Centric Digital Technologies** (TU Wien)

- **Trust in Robots – Trusting Robots** (TU Wien)

- **MSCA COFUND Doctoral Program LogiCS@TUWien** (TU Wien + EU)

- **ETN on Domain Specific Systems for Info Extraction and Retrieval** (EU)

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International and Public Outreach

TU WIEN Informatics

International Outreach
Dedicated to Excellence

- International Advisory Board

- Kurt Gödel Visiting Professorship

- Guest Professorships

- Bachelor with Honors Partnerships

- Double Degree Programs

- Member of Informatics Europe

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Public Outreach
Committed to Society

- eduLAB

- Centre for AI & ML

- Digital Humanism

- Sustainability in CS

- Digital Competencies @ Parliament

- Vienna Gödel Lecture

- Vienna Center for Logic and Algorithms

- welcome.TU.code

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eduLAB
Committed to Society

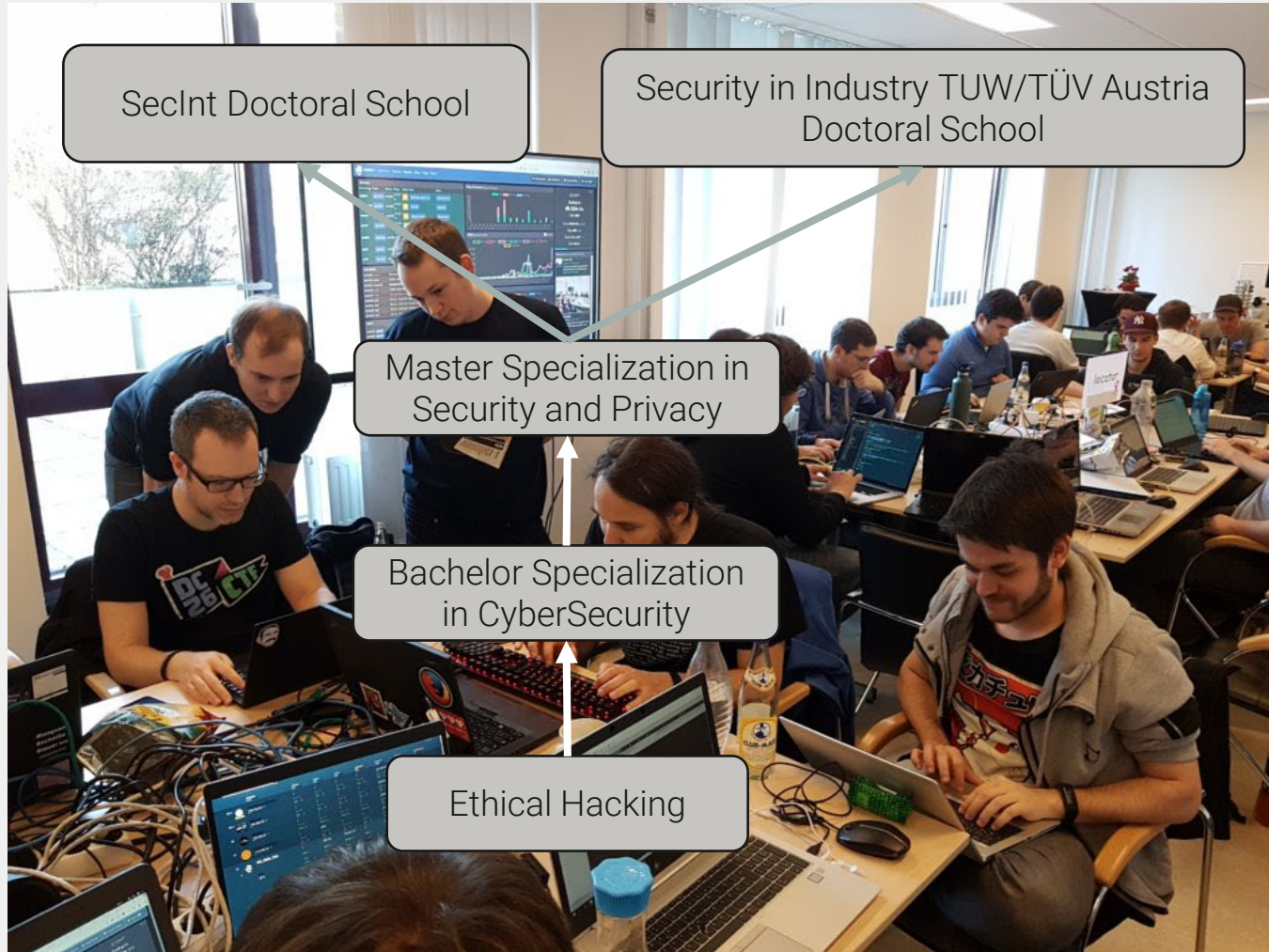

https://edulab.ifs.tuwien.ac.at

- eduLAB
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Cyber Security / Ethical Hacking
Committed to Society

SecInt Doctoral School

Security in Industry TUW/TÜV Austria Doctoral School

Master Specialization in Security and Privacy

Bachelor Specialization in CyberSecurity

Ethical Hacking

VISP

- Joint research collaborations and educational activities
- Raise societal awareness in cybersecurity and privacy
- Coordinated service for startups, industries, and government
- Promote Vienna as the European Hub for Cybersecurity and Privacy

wirtschafts agentur wien

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Digital Humanism

Vienna Manifesto on Digital Humanism

VIENNA MANIFESTO ON DIGITAL HUMANISM

VIENNA, MAY 2019

https://caiml.org/dighum

Describe, analyze and, above all, try to influence the complex interplay between IT and humanity - for a society that fully respects universal human rights

Putting the human at the center of technological developments

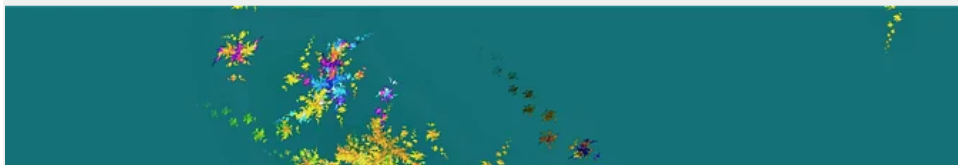An international community of researchers across different disciplines!

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Sustainability in CS

Committed to Society

Public Lecture Series: "Sustainability in Computer Science"

2023-07-25, SUSTAINABILITY

Be part of our online lecture series on sustainability in computer science, starting this winter semester.

194.155 Sustainability in Computer Science

2023W, VU, 2.0h, 3.0EC

- TUWEL online course available from: 09.10.2023 00:00.

Properties

- Semester hours: 2.0
- Credits: 3.0
- Type: VU Lecture and Exercise
- Format: Hybrid

Learning outcomes

After successful completion of the course, students are able to...

- describe the different aspects of sustainability in CS, most importantly to differentiate computational sustainability versus sustainable CS
- explain the practical relevance of sustainability in CS for business and society
- analyze and evaluate hypotheses and solutions for both computational sustainability and sustainable CS

- Vienna Gödel Lecture
- Vienna Center for Logic and Algorithms
- welcome.TU.code

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O.Univ.Prof. DI Mag. Dr. Gerti Kappel

Dean of the Faculty of Informatics

dekan@informatik.tuwien.ac.at

+43-1-58801-18000

Erzherzog-Johann-Platz 1

1040 Vienna

🌐 informatics.tuwien.ac.at

in linkedin.com/company/tu-wien-informatics

f facebook.com/TUWienInformatics

✉ communications@informatics.tuwien.ac.at

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