

# CRACOW UNIVERSIT Y OF TECHNOLO GY

2019/2020



## ABOUT CRACOW UNIVERSITY OF TECHNOLOGY

founded in 1945

almost 80 years old tradition of educating engineers

modernity and openness to change

strong position and well established brand

high quality education

almost 14,000 students (2019)

internationally recognized diplomas

more than 93% of CUT alumni who graduated from MSc studies, find a job within half year from obtaining a diploma

almost 68% CUT alumni already work during their studies



# CUT in international rankings

**SHANGHAI RANKING'S GLOBAL RANKING OF ACADEMIC SUBJECTS 2019 - MECHANICAL ENGINEERING (#301 - 400)**



**QS WORLD UNIVERSITY RANKINGS**  
**2019 QS WORLD UNIVERSITY RANKING (#801-1000)**



**2019 EASTERN EUROPE AND CENTRAL ASIA UNIVERSITY RANKINGS (#83)**



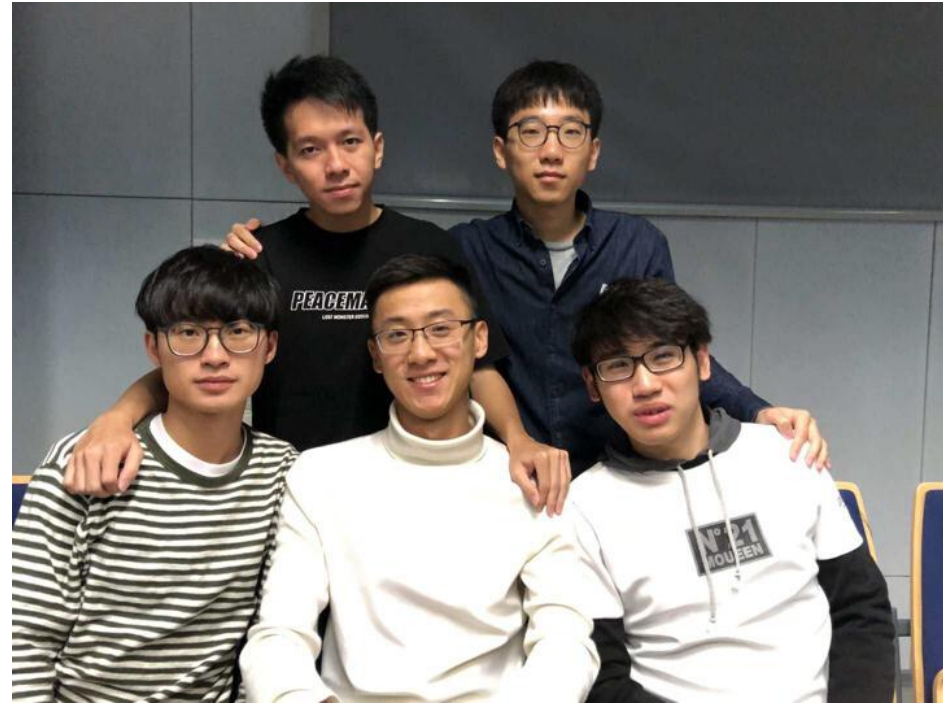
**UI GREENMETRIC WORLD UNIVERSITY RANKING 2018 (#572)**  
**U-MULTIRANK**





# FACULTIES

- Faculty of Architecture
- Faculty of Chemical Engineering and Technology
- Faculty of Civil Engineering
- Faculty of Computer Science and Telecommunications
- Faculty of Electrical and Computer Engineering
- Faculty of Environmental and Power Engineering
- Faculty of Materials Engineering and Physics
- Faculty of Mechanical Engineering





# Programmes in English

**BA in Architecture - 7 semesters**  
**BSc in Civil Engineering - 7 semesters**  
**BSc in Mechanics and Machine Design - 7 semesters**

**MSc in Applied Physics - 3 semesters**  
**MA in Architecture - 3 semesters**  
**MSc in Chemical Technology [spec. Innovative Chemical Technologies] - 3 or 4 semesters**

**MSc in Civil Engineering - 3 semesters**  
**MSc in Computer Science - 4 semesters**  
**MSc in Environmental and Land Engineering - 3 semesters**

**MA in Landscape Architecture - 4 semesters**  
**MSc in Mechanics and Machine Design - 3 semesters**  
**MSc in Power Engineering - 3 semesters**

# Mechanics and Machine Design

## BSc

7 semesters  
210 ECTS credits  
3500 EUR/year

This program is addressed for students who want to study contemporary problems in theoretical and applied mechanics with computer support. The program contains of the following general topics: basis in mathematics and physics, theoretical mechanics and strength of materials, material science and machining of structures, informatics and numerical methods, mechanics of solids, fluid mechanics, thermodynamics, theory of vibration and acoustics, automatic control and mechatronics, intelligent materials.

## MSc

3 semesters  
90 ECTS credits  
3500 EUR/year

Program title: Advanced Computational Mechanics  
The program is addressed for students who want to increase their knowledge in mechanics and computer application in design of structures (CAD, FEM), material design (CAMD), material selection (CAMS), manufacturing (CAM) and monitoring of machines.

# Computer Science

## MSc

4 semesters  
120 ECTS credits  
3000 EUR/year

Students will obtain professional knowledge in the area of data processing, broadcasting of information, production management, air-sea and land traffic control, communication, multimedia etc.

They will be able to work with project management, software engineering, implementation and management of modern informatics' systems. They will be also able to manage of data bases, internet services, computer systems and networks.

5 specializations

Applied Computer Science  
Computer Graphics and Multimedia  
Cybersecurity  
Data Science  
Teleinformatics



## Applied Computer Science

The competences obtained during studies at this specialization will allow the graduate to work as an IT specialist and to solve complex, interdisciplinary problems in the field of broadly defined information technology. The graduate will gain wide competences in the field of use of IT in areas such as mechanics and economics using latest Big Data, Machine Learning and High Performance Calculation Methods.

## Computer Graphics and Multimedia

The aim of education at this specialization is to learn how to solve advanced issues of applying computer science in many disciplines where modeling of 3D scenes is needed. These include production support and production management systems, multimedia content and computer games creation systems, virtual and augmented reality.

Students are able to work on programs such as 3DS MAX, Maya, Softimage, AutoCAD, Inwentor, Revit, MATLAB and many more.



## Cybersecurity

The graduate will gain wide competences in the field of IT and telecommunications, as well as legal and organizational aspects, with an emphasis on in-depth knowledge in the field of:

- Strategic management of the company, in the context of cyber security threats and data protection requirements;
- Security of Internet applications, computer systems, mobile applications and industrial data transmission systems;
- Security in telecommunications networks and network traffic analysis;
- Cloud computing security and Big Data processing and protection;
- Methods of quantum computation and algebraic coding;
- Advanced techniques of cryptography and cryptanalysis.

## Data Science

The aim of education at this specialization is to prepare the graduate to undertake independent activities at the most important IT areas, such as:

- Statistics and probability
- Data acquisition and processing
- Multimedia data analysis
- Data mining methods and machine learning methods
- Statistical methods for analyzing large data sets
- Advanced statistical and calculation methods

## Teleinformatics

The aim of education at this specialization is to prepare the graduate to undertake independent activities at the most important IT areas, such as:

- Security of hardware and software infrastructure
- Scalability and reliability of solutions
- Analysis and elements of system design
- Design and administration of complex ICT structures
- System and application integration

# ADMISSION PROCESS

Online application for BSc studies, 4 semesters studies and  
MSc in Applied Physics  
May - 31st July

Online application for MSc studies  
October - 5th February



# ACADEMIC YEAR

For BSc studies, 4 semesters studies and MSc in Applied  
Physics  
1st of October

For MSc studies  
Last week of February





# INTERNATIONAL COOPERATION



Cracow University  
of Technology

## BILATERAL AGREEMENTS

With universities in more  
than 50 countries i.e.  
Australia, Brazil, China,  
Japan, USA



## DOUBLE DEGREE AGREEMENTS

Fachhochschule Münster  
Technische Universität Berlin  
HAWK Hochschule Hildesheim  
Hochschule für Technik und Wirtschaft  
Dresden  
Jurij Fedkowicz National University in  
Chernivtsi  
Università di Cagliari

# CONTACT

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