

**Wrocław University of Science and Technology**  
- partner of Project

**Politechnika Wrocławskiego**  
- partner Projektu



**Elżbieta Liber-Makowska & Barbara Kiełczawa**

10.10.2017



Wrocław  
University  
of Science  
and Technology

# Wrocław University of Science and Technology



Today's Wrocław University of Science and Technology is the heir to the material legacy the German Königliche Technische Hochschule Breslau and the intellectual and research traditions of the Lviv University of Technology.

Dzisiejsza Politechnika Wrocławska jest spadkobiercą materialnego dorobku niemieckiej Königliche Technische Hochschule Breslau oraz intelektualnego i naukowego Politechniki Lwowskiej. Uczelnia pod nazwą Politechnika Wrocławska funkcjonuje od 1945 roku. Jej twórcami i organizatorami byli uczeni lwowscy oraz warszawscy.



# Figures

Fields of study 51

Students 32 000

Doctoral students 918

Academic staff 2131

Professors 214

PhD holders 1 259

Liczba różnorodnych kierunków studiów 51

Liczba studentów 32 000

Liczba doktorantów 918



Liczba nauczycieli akademickich\* w tym:

z tytułem profesora 214

ze stopniem doktora habilitowanego 269

ze stopniem doktora 1259



# One of the best in rankings

**RANKING  
EDUKACYJNY**  
**Perspektywy**

**wprost**



**COMPUTERWORLD**

**2017**

4th place in the general ranking of universities  
2nd place among Polish technical universities

IV miejsce w rankingu uczelni akademickich  
II miejsce w rankingu uczelni technicznych

**2015**

6th university in Poland, whose alumni are the most  
deserved target of the employers

VI uczelnia w Polsce, której absolwenci są najbardziej  
poszukiwani przez pracodawców

**January 2013**

1st place among Polish technical universities

4th place among Polish universities

I miejsce wśród polskich uczelni technicznych

IV miejsce wśród wszystkich polskich uczelni

**2012**

2nd place among the best technical  
and computer science universities in Poland  
2nd place among the most innovative universities



# Education





# Faculties

- Faculty of Architecture
- Faculty of Civil Engineering
- Faculty of Chemistry
- Faculty of Electronics
- Faculty of Electrical Engineering
- **Faculty of Geoengineering, Mining and Geology**
- Faculty of Environmental Engineering
- Faculty of Computer Science and Management
- Faculty of Mechanical and Power Engineering
- Faculty of Mechanical Engineering
- Faculty of Fundamental Problems of Technology
- Faculty of Microsystems Electronics and Photonics
- Faculty of Pure and Applied Mathematics
- Faculty of Technology and Natural Sciences
- Faculty of Technology and Computer Science
- Faculty of Technology and Engineering



# Faculty of Geoengineering, Mining and Geology

## Wydział Geoinżynierii, Górnictwa i Geologii



### FIELDS of STUDY

### Kierunki studiów

- **Mining and Geology**  
*/Górnictwo i Geologia*
  
- **Geodesy and Cartography**  
*/ Geodezja i Kartografia*

Programmes taught in Polish and English



**Geocentrum**



Wrocław  
University  
of Science  
and Technology

# Faculty of Geoengineering, Mining and Geology

## Wydział Geoinżynierii, Górnictwa i Geologii



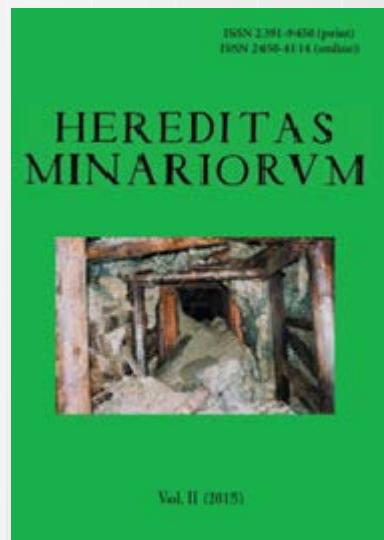
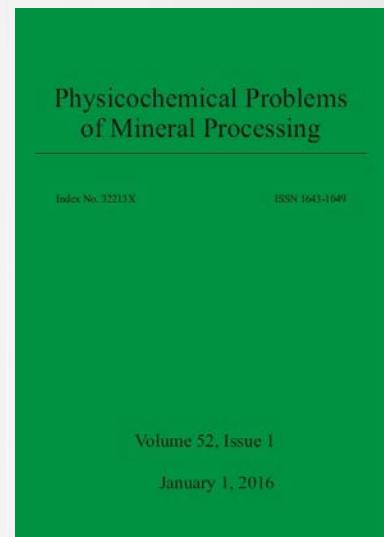
The best in ranking

I place the Faculty in the Ranking of Engineering Studies  
- fields of study "Mining and Geology"

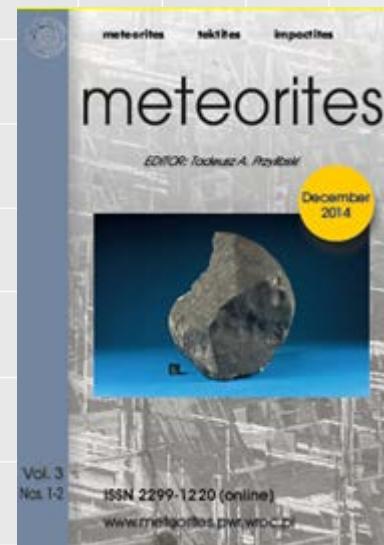


# Faculty of Geoengineering, Mining and Geology

## Wydział Geoinżynierii, Górnictwa i Geologii



## Faculty journals





Wrocław  
University  
of Science  
and Technology

# Faculty of Geoengineering, Mining and Geology

## Wydział Geoinżynierii, Górnictwa i Geologii

# SELECTED STUDIES

### 3D deposite modeling, mines planning and reclamation, planning and optimization of exploatation

3D modelowanie złóż, projektowanie kopalń oraz rekultywacja, planowanie i optymalizacja wydobycia



### Research of Earth and the Universe raw materials

Badania surowców naturalnych i pozaziemskich

### Building and implementing spatial information systems. Analysis of spatial data in GIS

Budowa i wdrażanie systemów informacji przestrzennej. Analiza danych przestrzennych w gis

### Research of mineral processes and the creation of mineral raw materials technology

Badania podstaw procesów mineralurgicznych oraz tworzenie technologii wzbogacania surowców mineralnych

### Research and diagnostics conveyor belts and connections

Badania i diagnostyka taśm przenośnikowych i ich połączeń

### Economic and financial analysis of investments with payment and risk analysis

Analizy ekonomiczno-finansowe przedsięwzięć inwestycyjnych wraz z analizą opłacalności i ryzyka

### Research of rollers conveyor

Badania krążników przenośników taśmowych



Wrocław  
University  
of Science  
and Technology

# Wrocław University of Science and Technology

## HR Excellence in Research Europejska Karta Naukowca



HR EXCELLENCE IN RESEARCH

In June 2016 European Commission granted our University the logo "Human Resources Excellence in Research". It is given to those institutions that apply the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

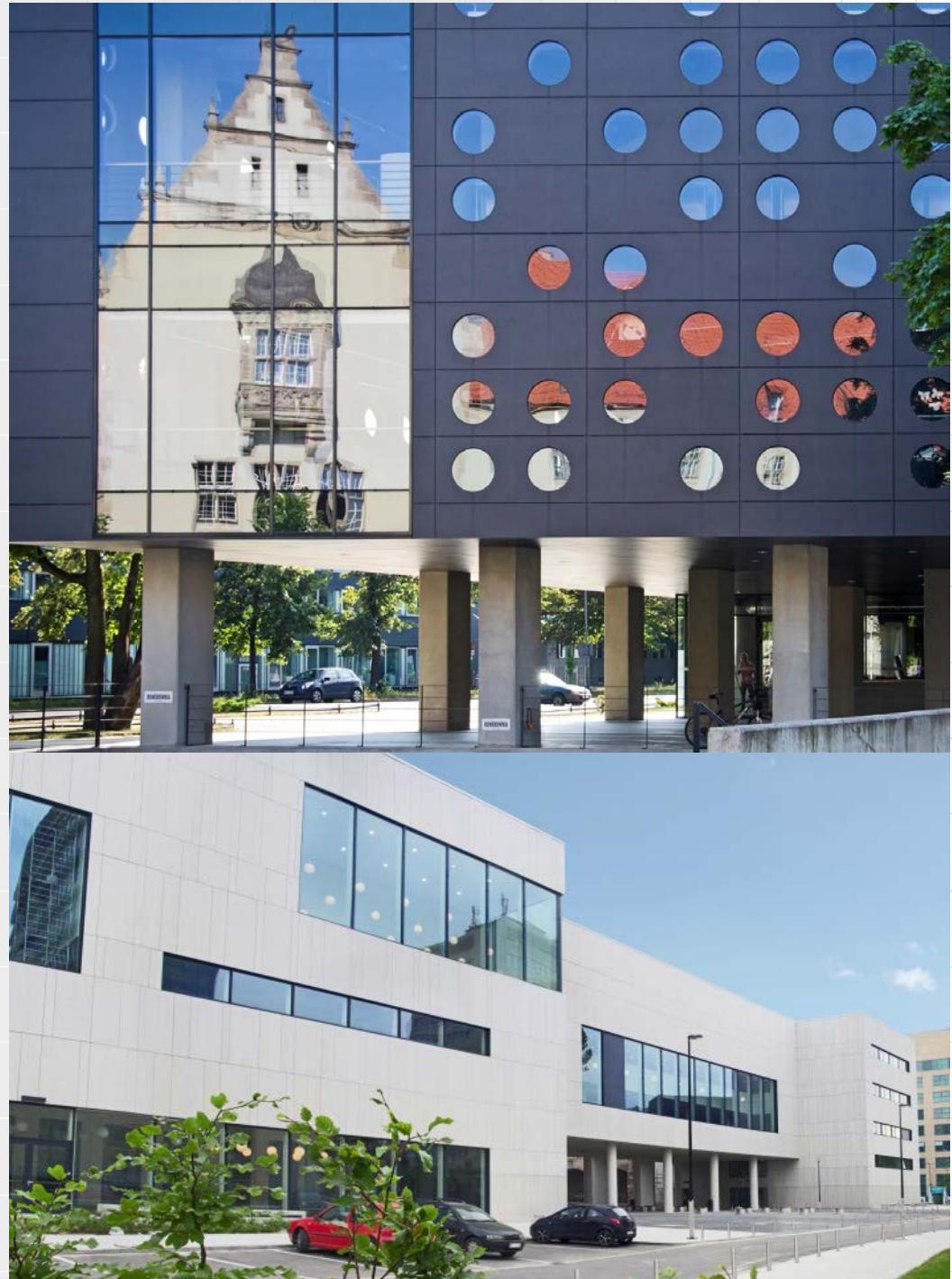
W czerwcu 2016 r. Komisja Europejska przyznała Politechnice Wrocławskiej prestiżowe logo „HR Excellence in Research”. Nadawane jest ono instytucjom, które stosują zasady Europejskiej Karty Naukowca i Kodeksu postępowania przy rekrutacji pracowników naukowych.



Wrocław  
University  
of Science  
and Technology

# Infrastructure

# Infrastruktura





Wrocław  
University  
of Science  
and Technology

# Wrocław University of Science and Technology

## INTERACTIVE CAMPUS MAP

-  Buildings "A"
-  Buildings "B"
-  Buildings "C"
-  Buildings "D"
-  Buildings "H"
-  Buildings "L"
-  Buildings "T"
-  "Polinka" Cable Car



L-1 Geocenter





# Research and teaching facilities

## Baza naukowo-dydaktyczna

Available to students:

- 183 buildings with modern laboratories, libraries and multimedia teaching rooms
- 561 teaching rooms and lecture halls
- 885 didactic laboratories
- computer laboratories and reading rooms with 24h internet connection



- **183** budynki z nowoczesnymi laboratoriami, bibliotekami, salami dydaktycznymi wyposażonymi multimedialnie
- **885** laboratoriów dydaktycznych
- **561** sal i pracowni wykładowo-ćwiczeniowych
- bezprzewodowy dostęp do internetu na terenie kampusu





# International cooperation





# International exchange programmes

## Erasmus Mundus Action 1

- EMMEP (European Mining, Minerals and Environmental Programme)
- MONABIPHOT – Molecular Nano- and Biophotonics



## Erasmus Mundus Action 2

- Erasmus Mundus Action 2 INTACT Asia (2013-17)
- Erasmus Mundus Action 2 FELLOW-MUNDUS South America (2013-17)
- Erasmus Mundus Action 2 THELXINOE Australia, New Zealand (2013-17)
- Erasmus Mundus Action 2 PHOENIX (2013-17)
- Erasmus Mundus Action 2 SATURN South Africa (2013-16)
- Erasmus Mundus Action 2 SIGMA Western Balkans (2013-16)

## Erasmus+ KA103

## Erasmus+ KA107

## T.I.M.E. – Top Industrial Managers for Europe





Wrocław  
University  
of Science  
and Technology

# Science and research





# Research

## Research results:

- 12 195 publications in journals on the ISI Master Journal List
- 11 345 publications in JCRI indexed journals
- 5 495 registered inventions, including utility models
- scientific journals (*Optica Applicata*, *Material Science*, *Systems Science*)
- scientific conferences and seminars

- Centre of Advanced Materials and Nanotechnology
- Biomedical Engineering Centre
- Centre for Advanced Manufacturing Technologies
- EMC Centre of Excellence - Electromagnetic Compatibility of Devices, Systems and Installations
- Materials Recycling Centre of Excellence

## Science and research centres:

- Wroclaw Centre for Networking and Supercomputing
- Wroclaw Centre for Technology Transfer
- Hugo Steinhaus Centre for Stochastic Methods

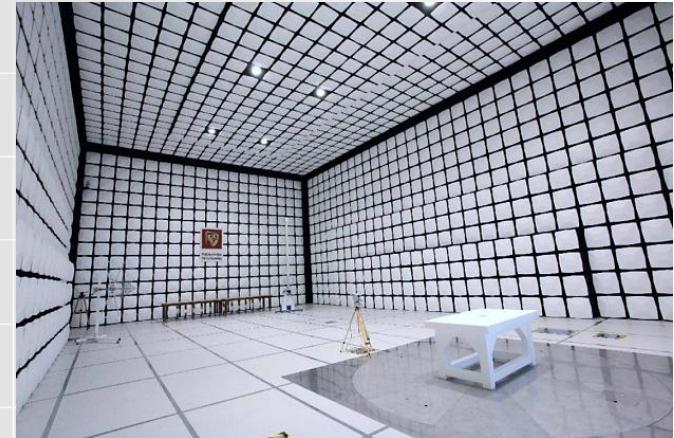
## Commercialisation of research results:

- hundreds of original technical solutions, research and technology methods used in industry
- numerous license agreements to use inventions



# Certified laboratories

- Laboratory of Electromagnetic Field Standards and Measurements
- Accredited Acoustics Testing Laboratory
- Accredited Laboratory of Computer Aided Designing
- Accredited Laboratory of Reverse Engineering
- Accredited Belt Conveying Laboratory
- Accredited Laboratory of Work Safety
- **Accredited Testing Laboratory of Transport Infrastructure Facilities**
- Accredited Laboratory of Olfactometry Tests
- Accredited Laboratory of Electromagnetic Compatibility
- Accredited Laboratory of Building Materials
- Accredited Laboratory of Building Constructions
- Accredited Laboratory of Machine Design and Research
- Accredited Chemical Laboratory of Multielemental Analyses





# Cooperation with industry

## Goals:

- joint research and implementation work in various industry sectors
- development of new technologies
- teaching and engineering staff and upgrading their professional skills
- cooperation on using research, teaching and training facilities
- opportunities for internships, student stays and diploma theses
- alumni career support
- development of academic entrepreneurship
- commercialization of research results
- preparation and implementation of projects financed from domestic and foreign funding
- promotion of modern technologies



Dziękujemy za uwagę

Thank you for your attention



Wrocław University  
of Science and Technology

