



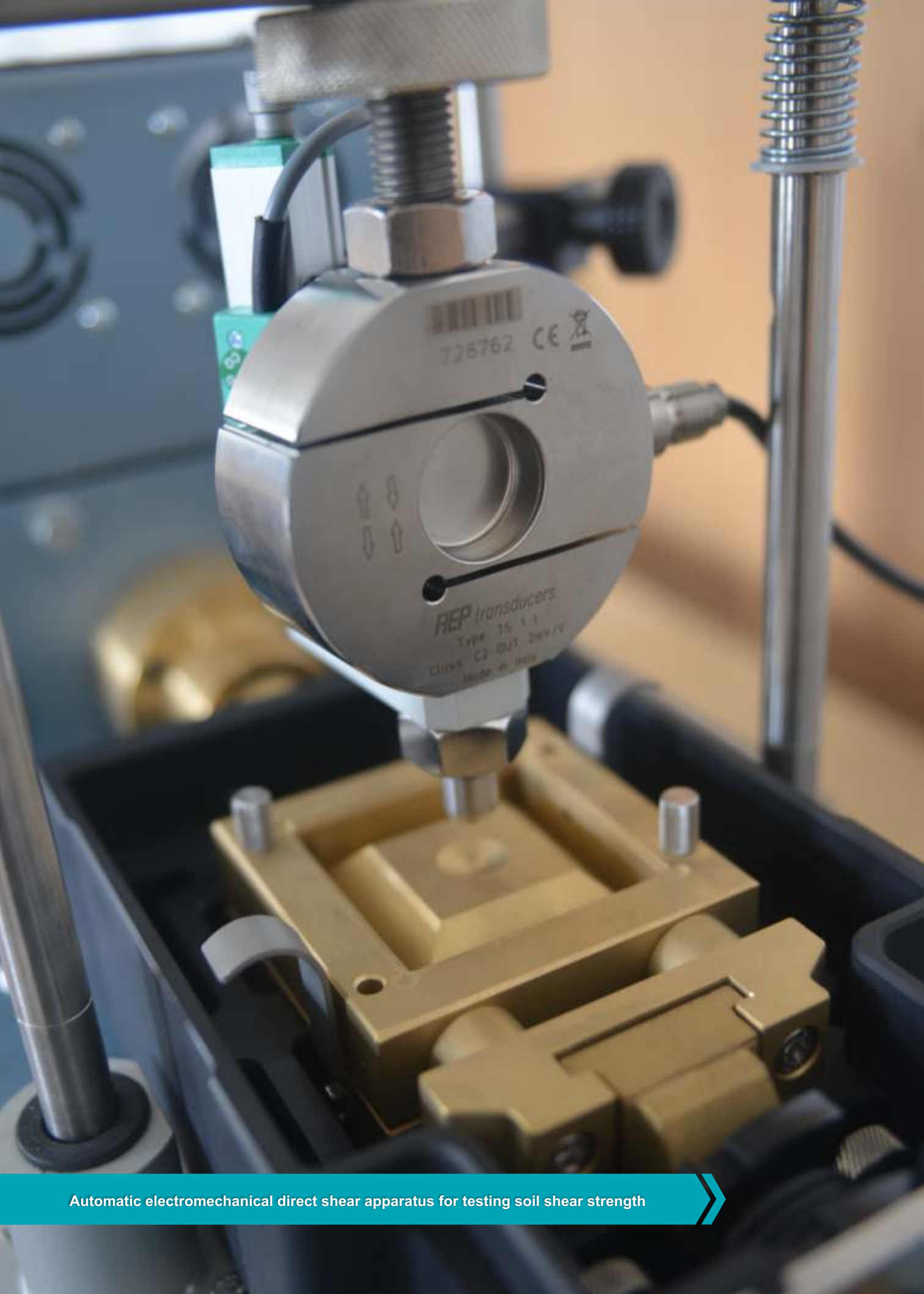


Faculty of Civil Engineering



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Automatic electromechanical direct shear apparatus for testing soil shear strength



History of the Faculty and its main areas of activity

In 1962, the Civil Engineering Evening College was launched. In 1972 evening part-time Civil Engineering programme with a specialisation in Building and Engineering Structures was provided, and in 1973 postgraduate studies with a specialisation in Urban and Industrial Construction were offered. In 1975, the Institute of Civil Engineering with faculty status was established, offering two degree programmes – Environmental Engineering and Civil Engineering with a specialisation in Building and Engineering

Structures and next with a specialisation in Technology, Organisation and Management in the Construction Industry. The Institute of Civil Engineering was converted into the Faculty of Civil Engineering in 1984 and in 1992 the Faculty of Civil Engineering was renamed to the Faculty of Civil Engineering and Environmental Engineering. The division into the Faculty of Civil Engineering and the Institute of Environmental Engineering took place in 1997. In 2005, the Faculty acquired the rights to confer a PhD degree.



Automatic freezer for testing cyclic freeze/thaw resistance of concrete





Device for measuring the water penetration depth in concrete



Faculty Authorities



*Maciej Major, MScEng, PhD, DSc,
CUT Associate Professor*

- **Dean of the Faculty**
Maciej Major, MScEng, PhD, DSc,
CUT Associate Professor
- **Director of Scientific Discipline
Civil Engineering and Transport**
Małgorzata Ulewicz, PhD, DSc,
CUT Associate Professor
- **Director of Studies**
Jacek Halbiniak, MScEng, PhD
- **Director of Development**
Aleksandra Repelewicz, MScEng, PhD





Thermal imaging camera



Academic staff and their scientific achievements, research projects

The Faculty employs 52 academic staff. The subject of scientific research encompasses issues in the scope of sustainable construction – structures, technology and materials. Scientists examine the topics of thermomechanics of porous structures, quality and efficiency of new solutions in building constructions, effective use of materials and technologies in sustainable construction designs, modelling

of structures and construction processes, nonlinear elastic waves, renewable energy in the construction industry. The Faculty's academic staff participate in scientific research projects and their results are presented in scientific monographs, articles published in ranked scientific journals. The conducted scientific work contributes to the acquisition of patents and implementations.



Staff of the Faculty of Civil Engineering at the Science Picnic





Boehme disc



Automatic freezer



Facilities

The Faculty building houses classrooms, departments and administration office rooms, and a library with computer workstations, including two for the visually impaired. The Faculty has at its disposal: Laboratory of Building and Engineering Structures Modelling, Geotechnics Laboratory, Computer Laboratory of Concrete Structures and Geotechnics Department, Metal Structures Laboratory I, Building Materials Laboratory,

Metal Structures Laboratory II, Computer Laboratory of Technical Mechanics and Engineering Graphics Department, Building Physics Laboratory, Computer Laboratory of Construction Technological Processes, Road Engineering Laboratory, Laboratory of Computer Methods in Construction Engineering. The building is equipped with a lift intended mainly for people with disabilities.



PD-01 Planograph for measuring surface evenness





Universal testing machine – Metal Structures Laboratory



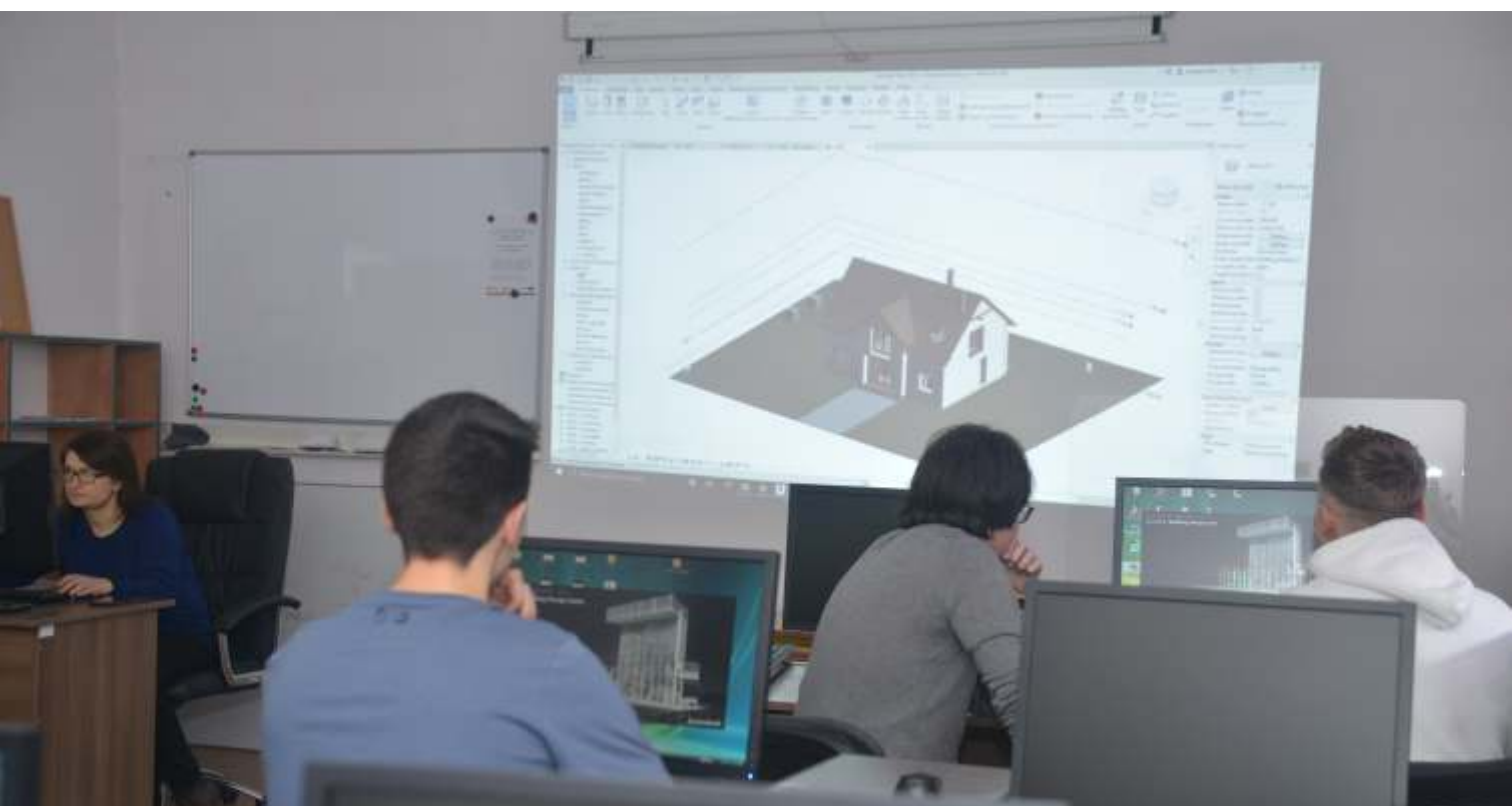
Asphalt penetration test carried out with the use of a penetrometer – Road Engineering Laboratory



Educational offer

The Faculty of Civil Engineering offers full-time and part-time, first-cycle and second-cycle programmes in the following specialisations: Building and Engineering Constructions; Technology, Organisation and Management in the Construction Industry; Architecture in the Construction Industry, and Road Construction and Maintenance. Students of Civil Engineering with the use of BIM technology are taught, among others, the application of the Building Information Modelling standard

to create a digital model of a building object. Students' work placement included in the programme of study allows them to broaden their acquired knowledge of geodesy, geotechnics and road engineering. Under the Erasmus+ programme students have the opportunity to study at one of 26 European partner universities. The Faculty is recruiting for postgraduate studies in Operation and Modernisation of Residential Buildings with BIM Technology Elements.



Class in three-dimensional building modelling in BIM technology





Class in three-dimensional building modelling in BIM technology



The Faculty's students during the class at the set for measuring indoor microclimate parameters



Student Research Clubs and other student activities

Six student research clubs operate at the Faculty of Civil Engineering: ERASMUS, the Polish Association of Civil Engineers and Technicians (PZiTb), INVENIT, ECO Building, Building Information Modelling (BIM), Architecture Research Club. They provide students with the opportunity to broaden and develop their interests as well as gain professional experience through participation in construction projects and expertise. Seminars, workshops, trips to trade fairs, construction sites and industrial plants are organised. As a part of their research-

-based diploma theses or projects, students participate in the development of innovative solutions in cooperation with companies in the construction industry. The acquired knowledge can be presented by the students at the Young Scientists Conference 'Materials, Technologies and Management Systems in Construction'. The Student Government is active at the Faculty. Students also participate in events organised to present the scientific and educational potential of the Faculty, such as: Science Festival, Doors Open Day and Science Picnic.



The Faculty's students during the class





Press for testing flexural and compressive strength of mortar



Cooperation with business

The Faculty cooperates with the following companies: Yawal, Am Tech, Aluprof, CMC Poland, APS System, Banimex, Fakro, Skanska, Euroglas, Intersoft, Drogbud, Schöck, Builddesk, Drewbet, Dreier, REZ-Drogpol, Domex, Wienerberger, Izodom, Włodar, Cemex and 'Warta' Waste Treatment Plant. Recent commissioned works have involved: research on the characteristics of concrete, construction products and road surface; evaluation of the innovativeness of construction products and processes; expert reports on the technical

condition of the substrate, building components and construction structures; architectural projects and commissioned opinions for the courts of law. The Faculty is the Founder Member of the Polish Aluminium Cluster, within which one of the most modern laboratories in Poland was created, carrying out numerous research studies: fire tests, acoustic tests, smoke tightness tests, resistance to wind load tests, air permeability and water tightness tests as well as advanced corrosion resistance tests.



Students of BIM and ECO Building Research Clubs during their study visit to the construction site of the largest flood control reservoir in Poland – Racibórz Dolny Dry Reservoir





The British Pendulum for measuring the slip resistance of road surfaces



Composite structure testing
– Metal Structures Laboratory



International cooperation

The Faculty liaises with the following universities: Odessa State Academy of Civil Engineering and Architecture, National Technical University of Ukraine Kyiv Polytechnic Institute, Georgian Technical University, Kharkiv National University of Civil Engineering and Architecture, Institute of Engineering Thermophysics of NAS of Ukraine, Kazakh Leading Academy of Architecture and Civil Engineering, Technical University of Ostrava, National University of Architecture and

Construction of Armenia, University of Žilina, National University Lviv Polytechnic, Technical University of Košice, Beijing Institute of Civil Engineering and Architecture, Bratsk State University, St. Petersburg State University of Architecture and Civil Engineering, Brest State Technical University. The Faculty of Civil Engineering has also participated in the implementation of EU programmes, such as Lifelong Learning.



International Scientific and Technical Conference





Students of the Faculty of Civil Engineering during lectures



Class in the Building Materials Laboratory



Significant accomplishments

The Faculty of Civil Engineering publishes *Zeszyty Naukowe Seria Budownictwo* (Scientific Papers 'Civil Engineering' Series), and semiannual *Budownictwo o Zoptymalizowanym Potencjale Energetycznym* ('Construction of Optimized Energy Potential'), which are included in the MEiN (Ministry of Education and Science) list of ranked journals. The international scientific-technical conference: 'Constructions of Optimized Energy Potential – Materials and Energy Saving Technologies' is regularly organised by the Faculty. The Faculty initiated and further continued

organising the scientific conference 'Contemporary Problems of Architecture and Construction', which is held in different research centres on an annual basis. In 2020, the staff of the Faculty won silver and bronze medals for inventions at the International Invention and Design EXPO KIDE 2020 in Taiwan. The Faculty's students have also been awarded in national competitions and on many occasions the President of the city of Czestochowa has recognised them for the best Diploma theses related to the promotion of Czestochowa and the region.



Medal of the Silesian District Chamber of Civil Engineers

