

CRACOW UNIVERSITY OF TECHNOLOGY

Cracow 2003

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Mission of the Cracow University
of Technology on the verge
of the 21st century

Tadeusz Kościuszko

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Mission of the Cracow University of Technology on the verge of the 21st century

The mission of the Cracow University of Technology as a state, public, autonomous university is to disseminate knowledge based on scientific research performed by its staff. Maintaining the academic traditions and keeping the proven organization structures, the scientific research as well as the resulting educational activities should concentrate on **selected areas** meaningful both from the point of view of knowledge development on world scale as well as the country's economy. On the verge of the first decade of the 21st century such areas that may be explored at the Cracow University of Technology are: environment protection, power engineering, communication and information technologies. These areas should permeate the activities of all faculties and encourage creating, should such necessity arise, new institutions within the university.

Scientific research should be performed mainly based on the financial means acquired from outside (state and international grants, co-operation with industry); government means centrally granted to the university for scientific research should be used directly for covering equipment and staff costs incurred by realization of the research. Particular emphasis should be put on the application of the research that leads to effective technology transfer between the university and industry.

University **education** should be of general basic character, enabling the graduates to undertake jobs that, though not existing at present, may emerge as a result of civilization development. In this context stress should be put on developing self-education and life long learning abilities, using information technologies. At the same time, the students taking more responsibility for their learning should be granted closer personal contact with their teachers. Such approach, however, may require a reduction of the number of obligatory lectures and changing the traditional division into lectures, laboratories and seminars towards more individualized education.

Utilization of the high scientific potential of the academic staff of the university and care for its constant growth should lead to involving students in research activities at an as early stage as possible. This will require shifting the momentum from the undergraduate (engineering studies BSc Eng type) to studying on the graduate and postgraduate levels (MSc and PhD).

The University, as a **high public utility institution**, must care for creating the atmosphere favourable to raising the general cultural level of the students through including humanistic values into the syllabus and requiring from the graduate good knowledge of foreign languages and fluent communication in mother tongue as well as knowledge of the Polish history and culture.

Cracow University of Technology – towards the future

The Cracow University of Technology was established in 1945, to become an independent entity in 1954. Over 50 years of activity the school has developed into a strong university which at present employs in total over 2100 staff, including nearly 1200 academic teachers; among 190 professors and associate professors there are over 70 full professors. From the seven faculties six are authorized to grant doctoral degrees (the youngest among them, Faculty of Applied Physics and Computer Modelling, will apply for the authorization in 2003), and four are entitled to confer the title of associate professor. Therefore all the conditions necessary for the Cracow University of Technology to be considered an autonomous university are met, CUT being one of three of this kind in Cracow. On the national scale the university is ranked between the fifth and seventh position among over twenty universities of technology in the country. Some of the faculties are ranked on higher positions and the faculties of Architecture, Civil Engineering and Mechanical Engineering are among the elite in Poland. In 2002/2003 over 18 thousand students are enrolled in eighteen degree courses. Educational activities are also run outside Cracow, at CUT centres in Nowy Sącz, Żywiec, Tarnów, Chrzanów, to mention a few. 250 students are enrolled in doctoral studies.

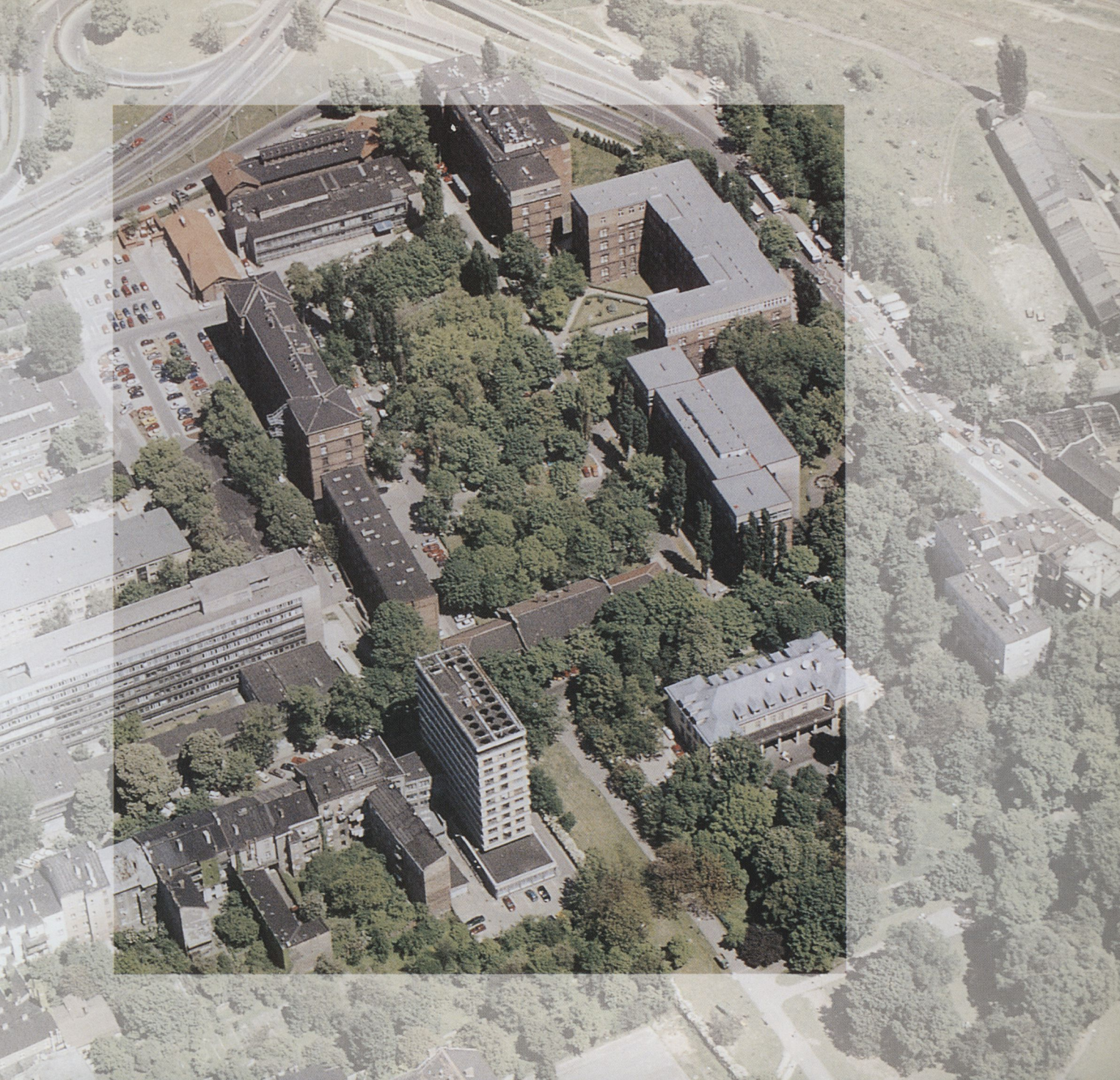
The university has substantial fixed assets. It is located on two campuses – close to the historic city centre in Warszawska Street and in Czyżyny on the area of former airport – of the total area of 1,1 sq. km. The university is also an owner of historical objects – former royal palace in Łobzów in Podchorążych Street, a building in Kanonicza Street (which hosts Kanonicza Street Gallery and Zależny theatre) as well as recently renovated palace in Janowice, near Tarnów, and a wooden villa in Zakopane. The various facilities include numerous faculty laboratories that enable research and educational activities. The University also has a sports hall in Kamienna Street and a waterfront sports centre in Żywiec.

The strong position of the university is a sound ground for undertaking activities towards adaptation to the new changing economic and civilization conditions. In 1997 on the initiative of the Cracow University of Technology a Special Economic Zone was established. On a part of the area contributed by CUT (29,5 hectares allotted from the Czyżyny campus) a Technology Park was created, under the management of the Centre for Advanced Technologies (the company with CUT as a shareholder). This important element of technology transfer brings the university benefits not only as the material input by the companies operating in the park. It also creates conditions for the staff to exchange ideas and for graduates to find employment (the graduates being clients of the University Career and Promotion Service).

The University itself is constantly changing by, for example, introducing new degree courses. Among these the inter-faculty degree course of computer science should be mentioned, introduced in 2001/2002 and realized at five faculties. Aimed at IT application in different areas of technology, it is to prepare the graduates to use modern tools in the era of IT revolution. The project has been prepared for several years. Serious investments in the area of networking infrastructure have been undertaken: both campuses have their own optical fiber optic network and are included in the Municipal Computer Network, similarly as the students hostels with 1800 students. Equipment has been provided for computer laboratories.

Cultural activities of students and staff should be emphasized – student club Kwadrat, Nowinki radio, GIL gallery, Cantata choir and the sports activities of the Students' Sports Association which has been scoring brilliant success. This follows one of the messages included in the mission of the Cracow University of Technology as an institution of high public utility.

Professor Marcin Chrzanowski PhD, DSc





*Professor Marcin Chrzanowski, PhD, DSc
Rector Magnificus*

Rector Magnificus

**Professor Marcin Chrzanowski
PhD, DSc**

Professor Marcin Chrzanowski PhD, DSc Eng. has been working at the Cracow University of Technology since 1964. His main area of research is service life of engineering materials and structures. As a visiting professor he gave lectures at Chalmers Techniska Hogskola (Göteborg, Sweden 1973/74) and Rensselaer Polytechnics Institute (Troy, NY, USA 1987/88). Prof. Chrzanowski is a foreign member of the Royal Academy of Arts and Sciences in Göteborg, a member of the Commission of Mechanics at the Cracow Branch of the Polish Academy of Sciences as well as Inter-Section Team for Materials Fatigue and Crack Mechanics of the Committee of Machine Design of the Polish Academy of Sciences. He is a holder of state and university medals of merit.

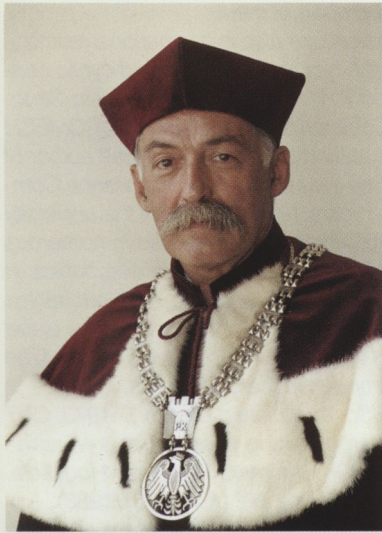
Prof. Chrzanowski's scientific output includes over 100 publications also in international journals. For many years he has participated in world conferences (he has regularly attended cyclic conferences Structural Mechanics in Reactor Technology and IUTAM Symposia "Creep in Structures"). In 1989 Prof. Chrzanowski organized the European Conference on Mechanics EUROMECH 251. Actively involved in the issues of computer aided education since 1990, he was author of computer aided education systems and in 1997 coorganized the international conference Computer Aided Engineering Education, held in Cracow. In the years 1990-96 he was the university coordinator of the TEMPUS programme in the framework of which he participated in numerous projects. In the period 1994-97 he was head of the FRAMEC project (Fracture Mechanics in Engineering Education) with the participation of outstanding authorities in the field of mechanics from six EU countries. Prof. Chrzanowski represented Poland at international conferences of the TEMPUS Programme as an expert of the TEMPUS Office of the program. An active EU expert, he participates in evaluation of projects realized within the European research projects.

Prof. Chrzanowski's university career: PhD thesis – 1969, DSc (associate professor) – 1973, CUT professor – 1988, full professor – 1993; a number of research training sessions at universities abroad, including Lomonosov University in Moscow (1969/70), Chalmers Techniska Hogskola, Göteborg, Sweden (1973/74), Rensselaer Polytechnic Institute, Troy, NY, USA (1987/1988).

In 1981-1987 Prof. Chrzanowski was the Vice-Dean of Civil Engineering Faculty and in the years 1996-2002 Vice-Rector of the Cracow University of Technology, in charge of development of the university and international cooperation. At that period he greatly contributed to creating a new faculty at CUT – Faculty of Applied Physics and Computer Modelling. Aware of the importance of constant development of professorial staff, which is one of the prerequisites for the autonomy of the university, he promoted young researchers by, for instance, elimination of limits for particular research positions and raising professional requirements. Prof. Chrzanowski initiated a wide cooperation of the university with foreign partners – during his period of office as a Vice-Rector twelve cooperation agreements were signed, the university was granted accreditation of educational European organizations; moreover, agreements of double diploma with several European universities were signed.

In the years 1996-2002 Prof. Chrzanowski acted as the Rector's proxy responsible for wide implementation of IT systems at the university. He promoted development of computer networks, in both hardware and software (development and extension of HMS system for uniform administration and education management). He initiated the introduction of the inter-faculty degree course on computer science.

As Rector of the Cracow University of Technology, Prof. Chrzanowski directly manages the organizational development and restructuring of the school as well as its finance and human resources policy.



**Vice-Rector
for General Affairs**

**Professor Aleksander Böhm
PhD, DSc, Arch.**

Graduate of the Cracow University of Technology in 1967, Prof. Böhm works at the Institute of Landscape Architecture, Faculty of Architecture. PhD thesis – 1974, associate professor – 1984, full professor – 2000. Areas of research: architecture, urban planning, spatial planning, landscape architecture. Author of over 100 publications and tens of architectonic realizations and urban projects. Owing to Prof. Böhm's effort a new degree course of landscape architecture was introduced at the Faculty of Architecture. Deputy president of the Committee of Urban Planning and Architecture of the Polish Academy of Sciences, expert of the Ministry of Culture and National Heritage and member of Steering Group of the European Committee of Landscape Architecture Schools (ECLAS). Worked and gave lectures abroad: M-Design, Halifax, Canada, University of Baghdad, Fachhochschule Münster, International City Managers Association, Washington.

As a vice-rector in charge of general affairs Prof. Böhm supervises the information, promotion and cultural activities realized by the CUT units and coordinates the international activities of the university. He is responsible for conferring the honoris causa doctoral titles, the titles of honorary professors and postgraduate studies; promotes membership of CUT staff in international organizations and institutions and is responsible for contacts with state and private universities aimed at experience exchange, and establishing cooperation with the public sector, external institutions and media.

Hobbies: skiing in winter, going to the lakes in summer, classical music, literature



**Vice-Rector
for Development**

**Professor Kazimierz Furtak
PhD, DSc**

Graduate of the Cracow University of Technology in 1973, Prof. Furtak works at the Chair of Bridges and Tunnels Construction, Institute of Materials and Structures, Faculty of Civil Engineering. PhD thesis – 1979, associate professor – 1987, full professor – 1999.

Areas of research: bridges, concrete and composite structures; application of the theory of concrete in reinforced and prestressed structures, concrete and ferroconcrete fatigue, service life of concrete and steel bridges, steel-concrete structures.

Author of three books (one in print abroad), three academic handbooks and approximately 200 publications in Polish and foreign journals. Author and co-author of over 140 projects for the economy, 70 realized projects of new or revalorization of existing bridges (including the project of reinforcement with carbo-fibre bands). Awarded with Stefan Bryła Prize; member of the Commission for Construction of the Polish Academy of Sciences (Cracow Branch), member of the Section of Concrete Structures and Section of Transport, the Polish Academy of Sciences, vice-president of the Polish Bridge Engineers Association.

As a vice-rector in charge of development, Prof. Furtak, authorized by Rector, manages the activities related to economic operation of the university, utilization of the existing and development of new infrastructure (including implementing IT systems at the university). Another of his responsibilities is functional supervision over investment, modernization and revalorization projects, supervision over the activities of entities in which CUT has shares (including Special Economic Zone, Akopol Company, Cracow Real Estate Institute).

Hobbies: used to be sport (vice-champion in long jump and triple jump in university championship), at present – recreation, motoring tourism and the history of early Christian period.



**Vice-Rector
for Research and Science**

**Professor Józef Gawlik
PhD, DSc**

Graduate of the Cracow University of Technology 1972, Prof. Gawlik works at the Institute of Production Engineering, Faculty of Mechanical Engineering. PhD thesis – 1977, associate professor – 1989, full professor – 1999.

Areas of research: improvement of service life and reliability of tools, diagnostics and supervision of machining systems, organisation and management of companies, quality systems. Author or co-author of approximately 200 publications in Polish and foreign journals, co-author of a monograph, four university handbooks and one book. Member of Section for Technology Bases and Section for Metrology and Diagnostic Apparatus of the Committee of Machine Design of the Polish Academy of Sciences and International DAAM Committee in Austria, international association NC Gesellschaft "Anwendung Neuer Technologien" in Germany, member of Engineering Academy in Poland.

As a vice-rector in charge of research and science Prof. Gawlik, authorized by Rector, supervises all scientific activities of the university. The activities include among others: supervision of development of young scientific staff (student scientific societies, camps, doctoral studies), development of academic staff, coordination of research (planning, control, reporting); representing the university in contacts with government bodies responsible for scientific research (Committee for Scientific Research, Ministry of Education), and international research cooperation (international research projects). Prof. Gawlik supervises scientific conferences (organization of conferences in the country, coordination of participation of CUT staff in conferences held abroad); and the activities of the CUT Publishing House. Moreover, Prof. Gawlik is in charge of cooperation of the university with companies in the area of realisation and implementing the results of research and technology transfer, patenting, intellectual property matters.

Hobbies: skiing in winter, tourism in summer, theatre and opera in particular, psychology of education, social psychology and matters related to team management.



**Vice-Rector for Instruction
and Students' Affairs**

Jan Kazior
PhD, DSc, Assoc. Prof.

Graduate of the Academy of Mining and Metallurgy 1975. Prof. Kazior has been working at the Institute of Materials Science and Metals Technology, Faculty of Mechanical Engineering since 1976, the Cracow University of Technology. PhD thesis – 1984, DSc Eng. – 1994, associate professor – 1999.

Areas of research: powder metallurgy technology; activated sintering of metallic powder in the presence of liquid phase, surface engineering of sintered structural elements.

Author or co-author of approximately 80 publications, the majority in reviewed English journals. Prof. Kazior gave lectures in Italy (1996), France (1999), Institute of Fundamental Technological Research of the Polish Academy of Sciences, Warsaw (2001). For many years he has closely cooperated with Prof. Alberto Molinari from Trento University in Italy in the area of sintered austenitic stainless steels. Founding Member of the Polish Materials Sciences Association, member of the Section of Committee of Materials Science, the Polish Academy of Sciences, member of Programme Council of the Institute of Metallurgy and Materials Engineering, Polish Academy of Sciences Cracow, American Powder Metallurgy Institute, European Powder Metallurgy Association.

As a vice-rector in charge of education Prof. Kazior, authorized by Rector, supervises the instruction activities of the university, in particular recruitment of candidates, cooperation of the Cracow University of Technology with secondary level schools, and realization of courses curricula. His responsibilities include reviewing the motions for new degree courses and specialisations, initiating and supervision over implementation of new forms of instruction and new systems of study, functional supervision of education centres outside Cracow. He represents CUT in the State Accreditation Commission and Accreditation Commission for universities of technology. Prof. Kazior is in charge of international relations in the field of education (studies and internships, foreigners studying at CUT), realization of international student projects, cooperation of CUT with international educational organizations. Moreover, he supervises cultural and sports activities of students, deals with social matters of students, cooperates with Students' Union and students organizations (ZSP, NZS, AZS). Hobbies: sport (skiing and swimming), tourism, music and photography.

Cooperation with foreign institutions

Universidad Tecnologica Nacional Buenos Aires, Argentina
Monash University, Monash, Australia
Technische Universität, Vienna, Austria
European Commission, Joint Research Centre, Institute for Advanced Materials, Brussels, Belgium
Denmark University of Technology, Copenhagen, Denmark
Vaasa Polytechnic, Vaasa, Finland
CEMAGREF, Paris, France
Université Blaise Pascal, Clermont-Ferrand, France
Kitami Institute of Technology, Kitami, Japan
University Laval, Quebec, Canada
Technische Universität Berlin, Germany
Bauhaus University, Weimar, Germany
Fachhochschule Münster, Germany
Fachhochschule Trier, Germany
Norwegian University of Science and Technology, Trondheim, Norway
Universidade da Beira Interior Covilha, Portugal
Ivanovo State Academy of Chemical Technology, Ivanovo, Russia
Mendeleev University of Chemical Technology of Russia, Moscow, Russia
St. Petersburg State Technical University, Sankt Petersburg, Russia
Tomsk Polytechnical University, Russia
Moscow State University of Environmental Engineering, Russia
Slovak University of Technology, Bratislava, Slovakia
Technical University of Košice, Slovakia
University of Žilina, Slovakia
CERN – European Organisation for Nuclear Research, Genève, Switzerland
Royal Institute of Technology, Stockholm, Sweden
University of Texas at Austin, Texas, USA
University of Tennessee, Knoxville, USA
Purdue University, West Lafayette, Indiana, USA
Central Connecticut State University, New Britain, Connecticut, USA
Dniepropetrovsk State Technical University of Railway Transport, Dniepropetrovsk, Ukraine
Lvov Politechnical Institute, Lvov, Ukraine
Sumy State University, Sumy, Ukraine
Technological University of Podillya, Khmelnytsky, Ukraine
National Technical University “Kharkov Polytechnic Institute”, Kharkov, Ukraine
Anglia Polytechnic University, Chelmsford, UK
Budapest University of Technology and Economics, Budapest, Hungary
University of Miskolc, Miskolc, Hungary
Università degli Studi di Venezia, Venice, Italy



КОЛЛЕКЦИЯ
ТАБЛЕТ
ИСТОРИИ
НАША
РОДИНА

ДЗЕРЖЕНКА

DOCTORAL HONORS CAUSA PK

HOWARD STANDE	1962
LEWIS WHEEL	1970
ROBERT MANDERSON	1972
FRANK GAMBIA	1972
WILLIAM WELBY	1973
LEWIS BERNHART	1973
FRANCIS TAYLOR	1975
WILLIAM RYAN	1978
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WILLIAM RYAN	2023



Doctors Honoris Causa of the Cracow University of Technology

Leópnold Escande professor of University of Toulouse, foreign member of the Polish Academy of Sciences; hydro-engineering and hydro-mechanics; Senate's resolution: 17.09.1965; conferment: 24.11.1965; conferring professor: Bronisław Kopyciński

Walery Goetel real member of the Polish Academy of Sciences, professor of the Academy of Mining and Metallurgy; geology, mining, protection of environment and natural resources; Senate's resolution: 30.09.1970; conferment: 5.10.1970; conferring professor: Zbigniew Wzorek

Marian Kamiński professor of the Academy of Mining and Metallurgy; petrography and mineralogy; Senate's resolution: 28.04.1972; conferment: 3.06.1972; conferring professor: Bronisław Kopyciński

Pietro Gazzola president of ICOMOS, professor of Rome University; monument preservation; Senate's resolution: 2.04.1972; conferment: 18.09.1972; conferring professor: Alfred Majewski

Wacław Olszak real member of the Polish Academy of Sciences, professor emeritus of the Cracow University of Technology; mechanics and theory of concrete structures; Senate's resolution: 28.09.1976; conferment: 26.10.1976; conferring professor: Bronisław Kopyciński

Jerzy Hryniewiecki professor emeritus of the Cracow University of Technology; school of large-space architecture; Senate's resolution: 11.04.1980; conferment: 19.06.1980; conferring professor: Władysław Borusiewicz

Kazimierz Gamski professor of Liège University; theory of engineering structures and materials; Senate's resolution: 27.03.1985; conferment: 18.06.1985; conferring professor: Roman Ciesielski

Bronisław Kopyciński, professor emeritus of the Cracow University of Technology; concrete structures and technology; Senate's resolution: 12.07.1988; conferment: 7.10.1988; conferring professor: Władysław Muszyński

Heinz Peter Brauer, professor emeritus of the Berlin University of Technology, Germany; chemical and process engineering, apparatus construction; Senate's resolution: 12.07.1986; conferment: 14.10.1988; conferring professor: Stanisław Rudnik

Olgierd Cecyl Zienkiewicz, professor of the Welsh University in Swansea, UK; computer methods of analysis and optimisation, finite elements method; Senate's resolution: 30.06.1989; conferment: 4.10.1989; conferring professor: Janusz Orkisz

Gerard Duncan Galletly, professor of the Liverpool University, UK; statics, dynamics and stability of metal and composite shells; Senate's resolution: 31.03.1995; conferment: 24.05.1995; conferring professor: Michał Życzkowski

Henk C. van der Plas, professor of the Wageningen Agricultural University, Holland; chemistry of heterocyclic nitrogen compounds; Senate's resolution: 31.03.1995; conferment: 27.06.1995; conferring professor: Elżbieta Bulewicz

Witold Cęckiewicz, real member of the Polish Academy of Sciences, member of the Polish Academy of Arts and Sciences, professor emeritus of the Cracow University of Technology; architecture and urban planning; Senate's resolution: 7.07.1995; conferment: 18.10.1995; conferring professor: J. Tadeusz Gawłowski

Roman Ciesielski, real member of the Polish Academy of Sciences, member of the Polish Academy of Arts and Sciences, professor emeritus of the Cracow University of Technology; structural mechanics; Senate's resolution: 7.07.1995; conferment: 18.10.1995; conferring professor: Gwidon Szefer

Michał Życzkowski, real member of the Polish Academy of Sciences, member of the Polish Academy of Arts and Sciences, professor emeritus of the Cracow University of Technology, solid state mechanics; Senate's resolution: 7.07.1995; conferment: 18.10.1995; conferring professor: Józef Nizioł

Zenon Mróz, corresponding member of the Polish Academy of Sciences, full professor at the Institute of Basic Problems in Engineering of the Polish Academy of Sciences; mechanics; Senate's resolution: 26.09.1997; conferment: 3.12.1997; conferring professor: Jacek Skrzypek

Wiktor Zin, professor emeritus of the Cracow University of Technology; architecture and urban planning, monument preservation, history and theory of architecture; Senate's resolution: 5.12.1997; conferment: 28.01.1998; conferring professor: Andrzej Kadłuczka

Władysław Muszyński, professor emeritus of the Cracow University of Technology; civil engineering; Senate's resolution: 9.01.1998; conferment: 6.05.1998; conferring professor: Kazimierz J. Flaga

Jaime Lerner, governor of the State of Paraná, Brazil; architecture and urban planning; Senate's resolution: 20.01.1999; conferment: 30.03.1999; conferring professor: Tadeusz Bartkowicz

Jan Hult, professor emeritus of Göteborg University of Technology, Sweden; mechanics of deformable bodies; Senate's resolution: 26.03.1999; conferment: 9.06.1999; conferring professor: Michał Życzkowski

Oscar H. G. Mahrenholtz, professor emeritus of Hamburg-Harburg University of Technology, Germany; applied mechanics; Senate's resolution: 26.03.1999; conferment: 9.06.1999; conferring professor: Józef Nizioł

Herbert A. Mang, professor of Vienna University of Technology, Austria; structural mechanics; Senate's resolution: 10.03.2000; conferment: 1.04.2000; conferring professor: Zenon Waszczyszyn

Jan Kmita, professor emeritus of the Wrocław University of Technology; theory and mechanics of bridge structures; Senate's resolution: 2.06.2000; conferment: 28.06.2000; conferring professor: Kazimierz J. Flaga

Mihály Zádor, professor of Budapest University of Technology and Economics, Hungary; architectural and historical buildings preservation; Senate's resolution: 02.06.2000; conferment: 27.10.2000; conferring professor: Andrzej Kadłuczka

James C. I. Dooge, professor of University College Dublin, Ireland; hydrology; Senate's resolution: 6.06.2000; conferment: 8.11.2000; conferring professor: Henryk Słota

Artur Wiczysty, professor emeritus of the Cracow University of Technology; environmental engineering; Senate's resolution: 9.03.2001; conferment: 30.05.2001; conferring professor: Jerzy Kurbiel

John Tinsley Oden, professor of the University of Texas at Austin, USA; computer methods in civil engineering, mechanics and mathematics; Senate's resolution: 3.11.2000; conferment: 25.06.2001; conferring professor: Janusz Orkisz

Walter Henn, professor of University of Technology of Brunswick, Germany; architecture; Senate's resolution: 29.06.2001; conferment: 21.11.2001; conferring professor: J. Tadeusz Gawłowski

Aleksiej Mitrofanowicz Kutiepow, professor of the Russian Academy of Sciences; hydrodynamics and theoretical foundations of non-linear technological processes; Senate's resolution: 10.05.2002; conferment: 26.06.2002; conferring professor: Józef Nizioł

Janusz Bronisławowicz Danilewicz, professor of the Russian Academy of Sciences in Sankt Petersburg, mathematical modeling of electric machines and their elements; Senate's resolution: 3.07.2002; conferment: 30.10.2002; conferring professor: Jan Taler

Honorary Senator and Professor of the Cracow University of Technology

Karol Wojtyła, Holy Father John Paul II, The Pope, conferment: 17.06.1999

Honorary Professors of the Cracow University of Technology

Marcel Huber van de Voorde, professor of Delft University of Technology, Holland; conferment: 4.12.1998

Herbert Bühler, professor of Fachhochschule Münster, Germany; conferment: 2.02.1999

Herbert P. Osanna, professor of Vienna University of Technology, Austria; conferment: 7.05.1999

Gianugo Polesello, professor of Istituto Universitario di Architettura di Venezia, Italy; conferment: 30.06.2000

Walerian Nikolajewicz Bliniczew, professor of Ivanovo State University of Chemistry and Technology, Russia; conferment: 2.02.2001

Richard Allsop, professor of University College London, UK, conferment: 1.06.2001

Ryszard Kowalczyk, professor of Universidade da Beira Interior, Portugal; conferment: 29.06.2001

Andrzej S. Nowak, professor of University of Michigan, USA, conferment: 7.06.2002

Honorary titles conferred outside the Cracow University of Technology

Prof. **Artur Wieczysty** Honorary Citizen of the City of Austin, Texas, USA, 1985

Prof. **Janusz Murzewski**, Honorary Professor of University in Tottori, Japan, 1987

Prof. **Władysław Muszyński**, Honorary Member of the Senate of Berlin University of Technology, Germany, 1990

Prof. **Józef Nizioł**, Doctor Honoris Causa of Ivanovo Institute of Chemical Technology, Russia, 1994

Prof. **Michał Dyląg**, Honorary Professor of Ivanovo Institute of Chemical Technology, Russia, 1995

Prof. **Michał Życzkowski**, Foreign Member of the Austrian Academy of Sciences, 1997

Prof. **Wiktor Zin**, Doctor Honoris Causa of the Budapest University of Technology, Hungary, 1988

Prof. **Tadeusz Jan Sobczyk**, Doctor Honoris Causa of the Russian Academy of Sciences, Russia, 2000

Prof. **Marcin Chrzanowski**, Foreign Member of the Royal Society of Arts and Sciences in Göteborg, Sweden, 2000

Prof. **Zenon Waszczyszyn**, Doctor Honoris Causa of the Budapest University of Technology and Economics, Hungary, 2001

Prof. **Kazimierz Flaga**, Foreign Member of the Ukrainian Academy of Civil Engineering, 1998; Honorary Professor of the Moscow State University of Environmental Engineering, Russia, 2002



Postgraduate Courses

at the Cracow University of Technology in 2002/2003



Industrial Safety (Centre for Education and Organisation of Quality Management)

Traffic Accident Investigation and Analysis (Faculty of Mechanical Engineering)

Management in Urban Public Transport for Development and Operation (Faculty of Civil Engineering)

Chemical and Process Engineering (Faculty of Chemical Engineering and Technology)

Diploma Study in Architectural and Urban Monuments' Conservation (Faculty of Architecture)

Marketing and Organisation of Railway Transport (Faculty of Civil Engineering)

International System of Quality Assurance in Industrial Plants ISO 9000 (Centre for Education and Organisation of Quality Management)

Real Property Assessment (Faculty of Civil Engineering)

Environment Protection in Urban Areas (inter-faculty) (Faculty of Mechanical Engineering)

Local Education Management (Pedagogy and Psychology Centre)

Manager of Education (Pedagogy and Psychology Centre)

Local Education Organisation and Management (Pedagogy and Psychology Centre)

Education in Economics – Initiative (Pedagogy and Psychology Centre)

School of Business – Institute of Business Studies at Cracow University of Technology (Faculty of Mechanical Engineering)

Protection of the Earth Surface and Waste Management (Centre for Education and Organisation of Quality Management)

Computer Science for Teachers (Centre of Information Systems)

Mathematics (Faculty of Applied Physics and Computer Modelling)

Air Conditioning and Heating Systems (Faculty of Environmental Engineering)

Photography (Faculty of Architecture)

**FACULTY
OF ARCHITECTURE**



- Institute of History of Architecture and Monument Preservation (A-1)*
- Institute of Architectural Design (A-2)*
- Institute of Urban Design (A-3)*
- Institute of Rural Architecture and Planning (A-4)*
- Institute of City and Regional Design (A-5)*
- Section of Architectural Design for Industry (A-6)*
- Section of Drawing, Painting and Sculpture (A-7)*
- Institute of Landscape Architecture (A-8)*
- Section of Descriptive Geometry and Engineering Graphics (A-9)*
- Section of Regional Architecture Design (A-10)*

Dean:

Prof. Wacław SERUGA, PhD, DSc, Arch.

Vice-Deans:

Prof. Dariusz KOZŁOWSKI, PhD, DSc, Arch.

Prof. Kazimierz KUŚNIERZ, PhD, DSc, Arch.

Ewa WĘCŁAWOWICZ-GYURKOVICH, PhD, Arch.



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Degree courses and specialisations:

ARCHITECTURE AND URBAN DESIGN

LANDSCAPE ARCHITECTURE

The five-year course of instruction covers a broad range of knowledge in:

- history of culture, architecture, world and Polish art,
 - building design and techniques,
 - design of buildings and architectural complexes including interiors and green areas, as well as ways of composing elements into a spatial organism within an integrated urban-planning and architectural unit and landscape architecture.
- Graduates are qualified to work in design offices, urban-planning bureaus, in construction and maintenance of residential, public, industrial and agricultural buildings as well as reconstruction and preservation of historical monuments. They are prepared to work as interior designers, and co-ordinate construction projects.

Faculty and research staff:

245 staff, including 20 professors (one member of the Polish Academy of Sciences and the Polish Academy of Arts and Sciences), 15 associate professors, 5 PhD, DSc and 98 PhD holders.

Students:

Total number of students: 2009, first year enrolment 383.

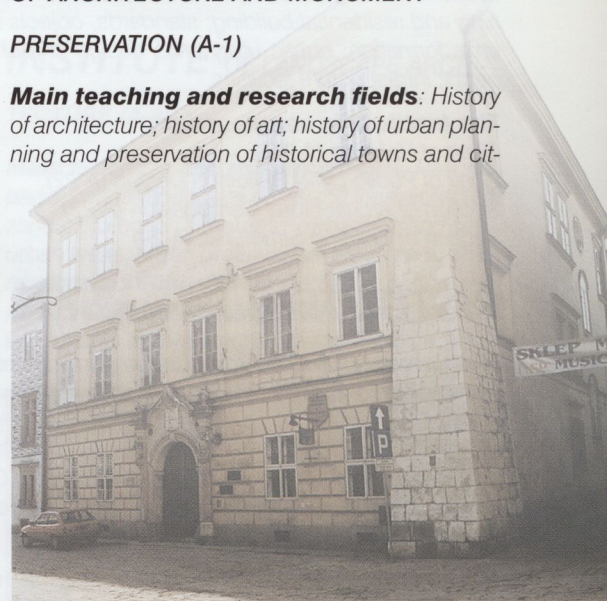


INSTITUTE OF HISTORY

OF ARCHITECTURE AND MONUMENT

PRESERVATION (A-1)

Main teaching and research fields: History of architecture; history of art; history of urban planning and preservation of historical towns and cit-



ies as well as preservation and conservation of historical architectural monuments including in particular: connection between the modern architecture and respect for historical values; theory and technology of monument preservation; architecture and preservation of wood architectural objects and complexes; the 19th and 20th century architecture.

The Institute is involved in SOCRATES/ERASMUS European Union Programme.

The Institute is composed of:

- Chair of History of Architecture and Monument Preservation (A-11)
- Chair of History of World Architecture, Urbanism and Art (A-12)
- Section of History and 19th-20th C Architecture Renewal (A-13)
- Section of Preservation Studies and Research (A-14)

INSTITUTE OF ARCHITECTURAL DESIGN (A-2)

Main teaching and research fields: Basics of architectural design; urban planning and residential building; standards, objects formation; complexes and model units formation; public utility units design in architectural and urban-planning aspects; infrastructure facilities.

The Institute is composed of:

Chair of Housing (A-21)

Chair of Public Utility Buildings Design (A-22)

Section of Architectural Composition (A-23)

Section of Building Structures (A-24)

INSTITUTE OF URBAN DESIGN (A-3)

Main research fields: Role of urban planning design (in the aspects of programme, composition and ecology); revalorization and development of various urban zones in view of new estate-property laws in Poland; design of low intense forms of housing systems; ecological problems in housing environment design; renewal of existing residential complexes and postindustrial areas; GIS application in urban planning analysis; design and adaptation of urban environment for the disabled persons; theory and design of university education complexes.

Main teaching fields: Basic architectonic and urban planning design principles; design of single and multi-family residential complexes; design of city centre units; design of city transportation systems; design for the disabled persons (optional); design of sports and recreation areas (optional); composition of urban environment (optional); urban planning analysis (optional): student training in inventory; specialist design and design with foreigners (at students' choice).

The Institute is involved in SOCRATES/ERASMUS European Union Programme.

The Institute is composed of:

Section of Urban Composition (A-31)

Chair of Residential Environment (A-32)

Chair of Urban Renewal and Development (A-33)

Section of Communication Space Design (A-34)

INSTITUTE OF RURAL ARCHITECTURE AND PLANNING (A-4)

Main teaching and research fields: Development of construction and settlement in rural areas; architectural design in rural areas: residential and farm buildings, facilities and rural industry complexes; physical planning of settlement systems and agricultural areas; design of local government and facility centres; influence of industry and recreation on rural settlements transformation; energy-saving and ecological construction systems; traditional and modern building technologies; design of architec-

tural details; building materials in architecture.

The Institute is involved in SOCRATES/ERASMUS European Union Programme.



The Institute is composed of:

Section of Rural Architecture and Planning (A-41)

Section of Building Systems and Materials (A-42)

INSTITUTE OF CITY AND REGIONAL DESIGN (A-5)

Main teaching and research fields: Physical planning of towns and urbanized areas following the constitutional rule of sustainable development according to new economic conditions and tasks to be met on joining the European integration process; environment protection; transportation; municipal engineering and sociology; evaluation of investment projects effect on natural habitat as well as prognosis of effects of physical planning decisions on the environment and human condition; design of city areas and facility centres; re-evaluation and re-development of physical planning structures to reconstruct the historical composition of towns; local problems of southern Poland; regions of large towns and metropolises and resort areas.

The Institute is composed of:

Chair of City and Municipal Areas Design (A-51)

Chair of Physical Planning and Environment Protection (A-52)

Section of Regional Planning (A-53)

SECTION OF ARCHITECTURAL DESIGN FOR INDUSTRY (A-6)

Main teaching and research fields: Architectural design including: industrial building design; offices; storehouses; transportation facilities; health care facilities; theory of architecture covering: aesthetics, systematics and axiology of modern architecture, integration of art and skills; functional flexibility; psychology and ergonomics of architecture.

The Section is involved in SOCRATES/ERASMUS European Union Programme.



The Section is composed of:

Industrial Architecture Studio (A-61)

Special Objects Architecture Studio (A-62)

SECTION OF DRAWING, PAINTING AND SCULPTURE (A-7)

Main research fields: Plastic arts in architecture; theory of drawing, painting and sculpture; fine arts in architecture; design of industrial forms; history and design of stained glass; interior architecture.

Main teaching fields: Study of nature in studio and plein-air; development of sensitivity to painting and composition.

The Section is involved in SOCRATES/ERASMUS European Union Programme.

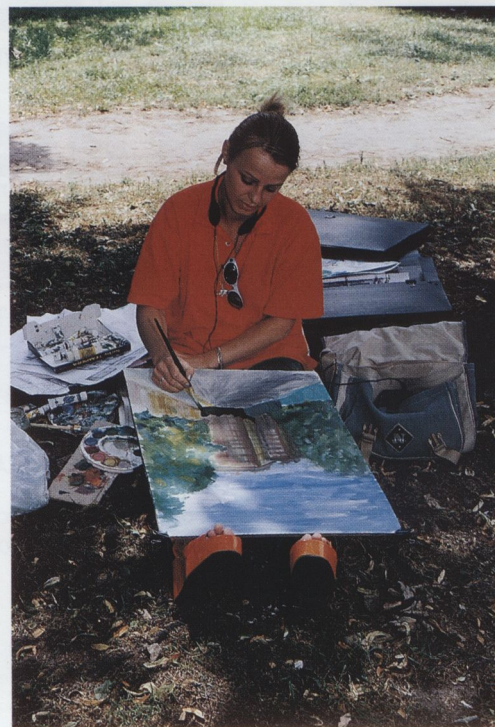
The Section is composed of:

Unit for Drawing and Painting (A-71)

Unit for Sculpture (A-72)

INSTITUTE OF LANDSCAPE ARCHITECTURE (A-8)

Main teaching and research fields: National parks; natural landscape parks and their protected zones; protection schemes; townscape and suburban areas; urban green areas, art of gardening, revalorization of historical gardens; pilgrimage parks; recultivation of degraded areas; engineering objects in landscape; spatial regional plan-



ning in legal, economic and social aspects; landscape and dendrological expertise; expert reports on investment project effects on landscape; terminology of landscape architecture and art of gardening; modern trends in landscape architecture, perception of landscape; participation of local communities in landscape planning; identity of towns and villages.

The Institute is involved in the following European Union Projects:

- Thematic Network Project: LE: NOTRE – Landscape Education: New Opportunities for Teaching Research in Europe (within SOCRATES/ERASMUS Programme)
- ReUrban Mobil – research project within the Fifth Framework Programme.

The Institute is composed of:

- Section of Natural Landscape and Engineering Structures (A-81)
- Section of Townscape and Suburban Zones (A-82)
- Section of Garden Composition and Greenery Areas (A-83)
- Section of Cultural Background of Landscape Architecture (A-84)
- Landscape Composition Studio (85)

SECTION OF DESCRIPTIVE GEOMETRY

AND ENGINEERING GRAPHICS (A-9)

Main research fields: Virtual computer models; projective geometry (cones theory, 3D-2D projections, perspective projection); geometric design in engineering practice (civil engineering, architecture, transportation – road design in view of traffic safety, dynamic space simulation); visualization, 3D perception, CAD and computer graphics, CAD for descriptive geometry problems.

The Section is involved in the following European Union Programmes: CEEPUS, SOCRATES/ERASMUS, the Fifth Framework Programme.

Main teaching fields: Descriptive geometry, engineering graphics.

SECTION OF REGIONAL ARCHITECTURE DESIGN (A-10)

Main teaching and research fields: Architectural and town planning in public utility objects design with special reference to sports and recreation; regionalism in modern architecture.

FACULTY

OF APPLIED PHYSICS AND COMPUTER MODELLING



Institute of Physics (F-1)
Institute of Mathematics (F-2)
Institute of Computer Modelling (F-3)
Institute of Economics, Sociology and Philosophy (F-4)

Dean:
Prof. Bohdan KOZARZEWSKI, PhD, DSc

Vice-Deans:
Jerzy Sanetra, PhD, DSc
Ludwik Byszewski PhD, DSc
Marek Stanuszek, PhD



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Degree courses and specialisations

APPLIED PHYSICS

Specialisations available: Condensed Matter Physics, Computational Mechanics and Computer Modelling - interdisciplinary.

APPLIED MATHEMATICS

Specialisations: Mathematics in Finances and Economy and Mathematical Modelling. The graduate study is designed for students intending to be experts in mathematical foundation of engineering, economy and business, and/or those who want to understand and implement mathematical modelling in a variety of processes. Courses content includes analysis, ordinary and partial differential equations, stochastic processes, introduction to economy and finances, mathematical modelling of economical and financial processes.

APPLIED COMPUTER SCIENCE

Specialisations: Applied Computing and NET Design and Networking. Both are among a wide range of distinct qualifications required of computer engineers in today's society.

Faculty and research staff:

159 staff, including 12 professors, 9 PhD, DSc, and 79 PhD holders.

Students

Total number of students: 840, first year enrolment: 340.

INSTITUTE OF PHYSICS (F-1)

Main teaching and research fields: Solid state physics; many-body theory of strongly correlated fermion systems; electronic structure and magnetic properties of intermetallic compounds; optimal structural design under stability and vibration constraints; liquid crystal physics; physical properties of synthetic polymers; biopolymers and their charge-transfer complexes; photoluminescence and electroluminescence of polymer diodes; surface physics.

The Institute is composed of:

Section of Solid State Physics (F-11)
Section of Applied Physics (F-12)
Section of Magnetic Properties of Solids (F-13)
Section of Theory and Condensed Phase (F-14)

INSTITUTE OF MATHEMATICS (F-2)

Main teaching and research fields: Linear and non-linear differential equations; spectral theory and eigenvalue problems, linear and non-linear evolution equations in abstract space, equations with parameter; integral equations; functional analysis; several complex variables and analytic spaces; functions of complex variable; global dif-

ferential geometry; algebraic geometry; linear and multi-linear algebra; matrix theory; semi-analytic and sub-analytic sets; probability theory and stochastic processes; mathematical logic; fluid mechanics; mechanics of particles and systems.



The Institute is composed of:

Section of Mathematical Analysis (F-21)
Section of Complex Analysis (F-22)
Section of Differential Equations and Functional Analysis (F-23)
Section of Geometrical Methods (F-24)

INSTITUTE OF COMPUTER MODELLING (F-3)

Main teaching and research fields: Computer science; networking; programming lan-



guages; CAD; operating systems; advanced computer methods; artificial intelligence, modelling and discrete processes simulation; application of computer science in industry; computer simulation of technological processes; training in computer science, computer programming and graphics.



The Institute is composed of:

- Section of Applied Mathematics (F-31)
- Section of Artificial Intelligence Methods (F-32)
- Software Engineering Studio (F-33)
- Computer Aided Design Studio (F-34)
- Technical Services Unit (F-35)

INSTITUTE OF ECONOMICS, SOCIOLOGY AND PHILOSOPHY (F-4)

Main teaching and research fields: Economics; management; banking; marketing and its strategies; rationale in business; ecology, sociology, social psychology; social communication; the Polish Diaspora, the Polish in exile, migrations; philosophy, ethics, ethics in business; philosophy of mathematics; epistemology; artificial intelligence.

The Institute is composed of:

- Section of Economics, Management and Marketing (F-41)
- Section of Philosophy and Ethics (F-42)
- Section of Sociology and Contemporary Culture (F-43)

FACULTY
OF ELECTRICAL AND
COMPUTER ENGINEERING



Institute of Electrical Metrology (E-1)
Institute of Electromechanical Energy Conversion (E-2)
Institute of Control Engineering (E-3)
Institute of Industrial Electrotechnics and Electronics (E-4)
Laboratory of Computer Engineering (E-5)
Institute of Teleinformatics (E-6)



Dean:

Assoc. Prof. Stanisław JAGIEŁŁO, PhD, DSc

Vice-Deans:

Piotr DROZDOWSKI, PhD, DSc

Waldemar ZAJĄC, PhD

Address:

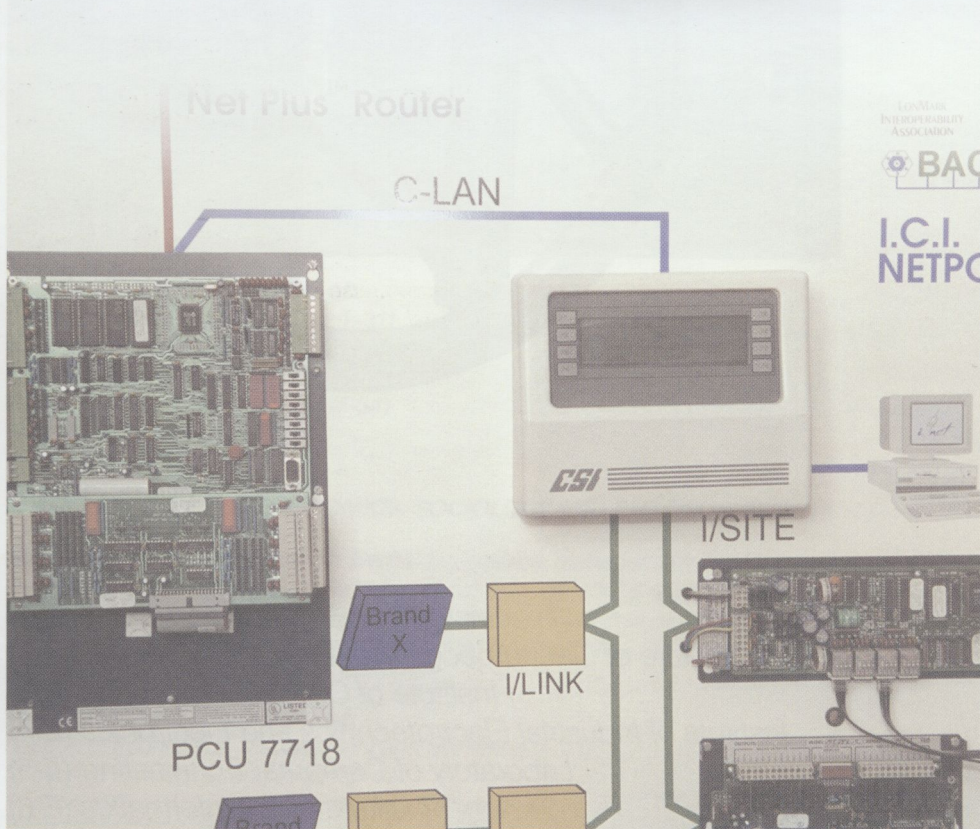
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Degree courses and specialisations:

The Faculty of Electrical and Computer Engineering offers:

full-time course leading to the degree of MSc in ELECTRICAL ENGINEERING with specialisations:

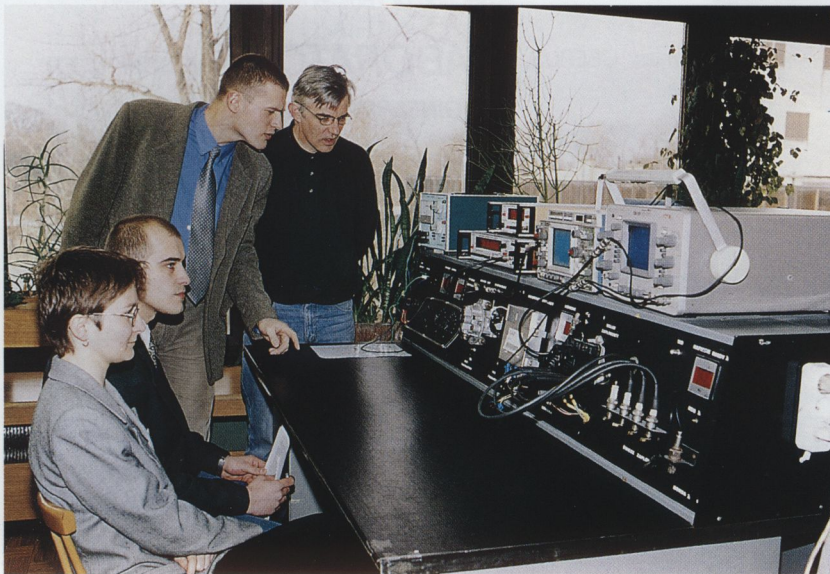
- engineering of electrical systems
- automatics
- electrical engineering in transport systems
- power engineering
- computer engineering
- teleinformatics engineering

part-time course in electrical engineering with specialisations:

- automatics
- electrical engineering in transport systems
- electronic control systems
- computer engineering

full-time course leading to MSc degree in INFORMATICS with specialisation in teleinformatics systems.

Specialisation in **engineering of electrical systems** is geared towards the following problems: power electronics and drives; engineering of electromechanical systems; quality and reliability of electrical energy electrical measurement systems. Specialisation in **automatics concerns** the following problems: automatic control of industrial processes; engineering of computer systems; electromechanical instrumentation.



Specialisation in **electrical engineering in railway systems** is dedicated to the following: power railway systems; traction drives; railway traffic control; electronic and telecommunications equipment for railway systems; municipal traction. Specialisation in **computer engineering** covers the following: computer architecture and digital systems design; software engineering; computer systems; teleinformatics.

Specialisation in **electronic control systems** concerns the design, modelling and application of electronic circuits and units in automatics and control systems for electrical drives.

Specialisation in **teleinformatic engineering** security systems, multimedia systems, software engineering, networking systems; security systems; internet applications; multimedia systems, wireless networks, parallel computing.

Main research fields: In the scope of electrical engineering: circuit theory; electrical machines and drives; power electronics; electromechanical systems; theory of dynamic errors; electric traction. In the scope of automatics: systems engineering, time-optimal control systems; railway traffic control. In the scope of computer engineering: hardware/software co-design; fast prototyping of digital systems; digital systems testing and diagnostics. Networking systems; security systems; internet applications, multimedia systems, wireless networks, parallel computing

Faculty and research staff:

92 employees, including 7 professors, 10 associate professors, 3 PhD, DSc and 45 PhD holders.

Students:

Total number of students: 1312, first year enrolment 442.

INSTITUTE OF ELECTRICAL METROLOGY (E-1)

Main teaching and research fields: Computer aided multiparameter measuring systems for measurements of non electrical dynamic quantities,

mathematical models and calibration of measuring systems, inverse scattering theory, aggregation and decomposition.

The Institute is composed of:

Section of Electrical Measurement (E-11)
Section of Impedance Tomography (E-12)

INSTITUTE OF ELECTROMECHANICAL ENERGY CONVERSION (E-2)

Main teaching and research fields: Electromechanical energy conversion; electrical machines; electromechanical systems; power electronic drives; power electronic in traction, traction power apparatus and systems, electromagnetic compatibility in electric traction; railway traffic control systems; electrical power engineering.

The Institute is composed of:

Chair of Machines and Electrical Drives (E-21)
Section of Traction and Traffic Control (E-22)
Section of Power Systems (E-23)

INSTITUTE OF CONTROL ENGINEERING (E-3)

Main teaching and research fields: Process reliability, quality and automation; diagnostics of defects; artificial intelligence methods ; applied informatics, automatic control; technological processes automation, optimal control, control engineering; optimisation, intelligent control systems; intelligent buildings; systems research; control engineering; fuzzy logic, probability.

The Institute is involved in the following European Union Programmes: CEEPUS, SOCRATES/ERASMUS Programme, the Fifth Framework Programme.

The Institute is composed of:

Chair of Intelligent Control Systems (E-31)
Section of Control Theory (E-32)
Section of Automatics Integrated Systems (E-33)

INSTITUTE OF INDUSTRIAL ELECTROTECHNICS AND ELECTRONICS (E-4)

Main teaching and research fields: Optimisation and synthesis of digital filters and electrical networks; signals theory-analysis and synthesis; analog and digital electronic networks and microprocessor systems; systems and elements of optoelectronics thin film; quality of electrical energy; mechatronics: mechatronics design systems, biocybernetics and mechanical apparatus.

The Institute is composed of:

Section of Electronics (E-41)
Section of Circuit Theory and Signal Processing (E-42)



Power Apparatus and Systems Unit (E-43)
Section of Vehicle Mechatronics (E-44)

LABORATORY OF COMPUTER ENGINEERING (E-5)

Main teaching and research fields: Rapid system prototyping, fault tolerant computing, database architecture.

INSTITUTE OF TELEINFORMATICS (E-6)

Main teaching and research fields: Networking systems; internet applications; security systems; wireless networks; parallel computing.

The Institute is composed of:

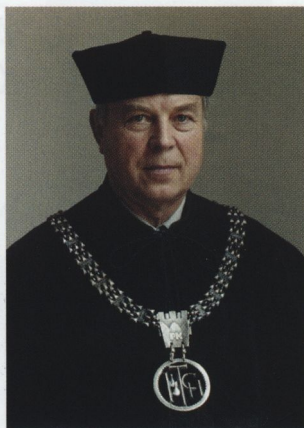
Section of Teleinformatics System Security (E-61)
Section of Microprocessors and Real Time Systems (E-62)
Section of Distributed Systems (E-63)

FACULTY

**OF CHEMICAL ENGINEERING
AND TECHNOLOGY**



*Institute of Inorganic Chemistry and Technology (C-1)
Institute of Organic Chemistry and Technology (C-2)
Institute of Chemical Engineering and Physical Chemistry (C-3)
Chair of Chemistry and Technology of Polymers (C-4)*



Dean:

Prof. Zbigniew Żurek, PhD, DSc

Vice-Deans:

Andrzej BARAŃSKI, PhD, DSc, Assoc. Prof.

Andrzej LASZUK, PhD, DSc

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Degree courses and specialisations

CHEMICAL TECHNOLOGY with specialisations: inorganic and organic chemical technology; polymer technology and petrochemistry; computer chemistry; chemistry and technology of environment.

CHEMICAL ENGINEERING with specialisations: chemical and process engineering; chemical and bioprocess reactors engineering; bioengineering; analysis and development of industrial process.

Main teaching and research fields: Technologies associated with rare earth elements, recovery of metallic elements from industrial wastes, utilization of phosphogypsum; sulfidation of alloys in H₂/H₂S atmospheres; determination of trace concentrations of highly toxic pollutants-dioxins; combustion chemistry, fluidised bed combustion of coal and waste materials. Technologies associated with special polymer materials obtained by synthesis and polymer modification (polyurethane); synthesis and structure of new organic compounds, particularly heterocyclic ones; quantum-chemical simulation of chemical reactions, mass production industrial technologies leading to receiving mass raw materials for organic chemistry; heterogeneous catalysis (oxide catalysts zeolites) reactions of alkylaromatic; hydrocarbons, olefin metathesis, synthesis of ethers and oxidative conversion of hydrocarbons; special purpose lubricants, refining process optimization; degasification of coal, studies of liquid coal derivatives. Theory and engineering of chemical and biochemical reactors; mass and heat transfer processes; multiphase systems hydrodynamics; heterogeneous catalysis; flue and effluent gas desulphurization.



Faculty and research staff:

84 employees, including 16 professors, 8 PhD, DSc, 53 PhD holders.

Students:

Total number of students: full-time 798, first year enrolment 252; part-time 178, first year enrollment 63.

INSTITUTE OF INORGANIC CHEMISTRY AND TECHNOLOGY (C-1)

Main teaching and research fields: Inorganic technology and in particular: chemistry of rare earth elements and technology processes of their recovery and extraction from industrial waste materials; solid state chemistry; utilisation of inorganic industrial wastes, especially from phosphoric acid and chromate production; chemistry and technology of gypsum based construction materials; corrosion, particularly of non-ferrous metals caused by sulphur compounds; anti-corrosion protection; highly reinforced surfaces; chemistry of combustion processes; chemical reactions in flames; fluidised bed combustion of coal and low grade fuels with simultaneous flue gas desulphurisation; chemical flame extinguishants and flame retardants; analytical chemistry with special reference to environmental pollution control and environmental protection, passive sampling and determination of inorganic substances in air (nitrogen oxides, sulphur dioxide, ozone), determination of persistent organic pollutants (POP) in air,

water, wastewaters, soil and industrial wastes, particularly polychlorinated dibenzodioxins (PCDDs) and dibenzofurans (PCDFs), chlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs) and chlorinated pesticides and herbicides; determination of metals in waste materials; soil and wastewaters; measurements of hazardous chemical substances in stack gases from incineration of hazardous wastes.

The Institute is involved in COST European Union Programme.

The Institute is composed of:

Section of Analytical Chemistry (C-11)

Section of Inorganic Chemistry (C-12)

Section of Inorganic Chemistry and Technology (C-13)

INSTITUTE OF ORGANIC CHEMISTRY AND TECHNOLOGY (C-2)

Main teaching and research fields: Organic chemistry, especially synthesis of new heterocyclic compounds, oxidative amination of aromatic compounds, benzylation of pyridine derivatives, quantum-chemical computation of the reactivity of heterocyclic compounds; cycloaddition reaction, technology of bulk organics intermediates, modification of zeolites, catalytic dehydrogenation and oxidative processes, transformation of alkylaromatic compounds, methathesis of olefins, synthesis of oxygenates for reformulated gasoline, thermal modification of coal liquids; chemistry



and technology of oil and gas processing, refining processes, lubricants technology, synthesis and modification of lubricant additives, environment protection in HPI (Hydrocarbon Processing Industry), calculation of simultaneous chemical and phase equilibria in crude oil processing, thermodynamics of hydrocarbons, mathematical modelling of petroleum processes.

The Institute is composed of:

Section of Organic Chemistry (C-21)

Section of Organic Technology (C-22)

Section of Petroleum and Gas Technology (C-23)

INSTITUTE OF CHEMICAL ENGINEERING AND PHYSICAL CHEMISTRY (C-3)

Main teaching and research fields: Experimental research on hydrodynamics, mass and heat transfer in multi-phase systems; theoretical and experimental work on non-conventional methods of liquid-liquid extraction; design and development guidelines for economic exploitation of devices for separating the components in heterogeneous systems; research on new methods and technologies of gas desulphurisation, development of flue gas desulphurisation methods; mathematical modelling of chemical homo- and heterogenic processes; theoretical studies on multiple steady states of autothermal systems; heterogeneous and homogeneous catalysis; theoretical and experimental studies on photoelectron transfer.

The Institute is involved in SOCRATES/ERASMUS European Union Programme.

The Institute is composed of:

Section of Chemical Reactors

and Mass Motion Kinetics (C-31)

Section of Physical Chemistry (C-32)

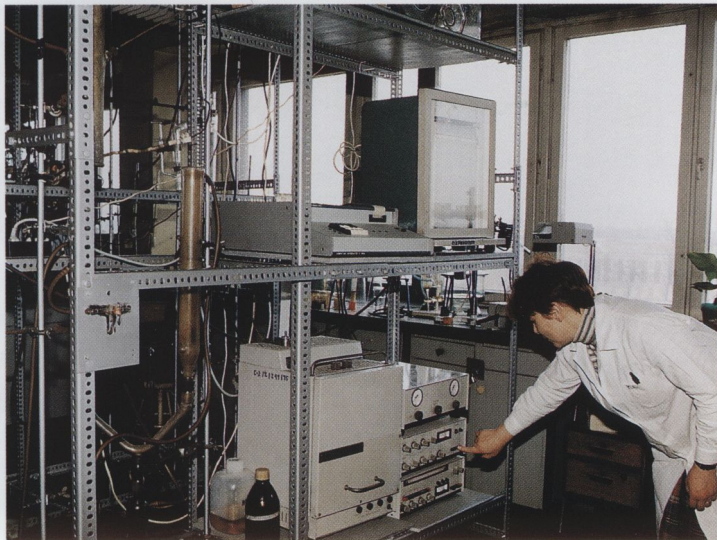
Section of Fundamental Processes and Equipment for Environment Protection (C-33)

Section of Mixture Separation and Process Thermodynamics (C-34)

CHAIR OF CHEMISTRY AND TECHNOLOGY OF POLYMERS (C-4)

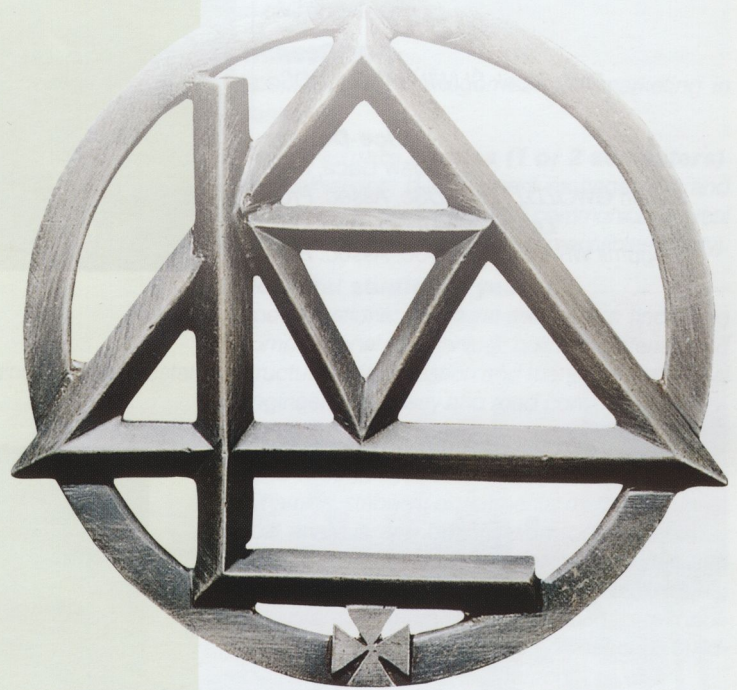
Main teaching and research fields: *Polymer chemistry and technology, especially modification of polyvinyl carbazoles; flexible polyurethane foams; co-polymerisation of novel vinyl monomers obtained under Phase Transfer Catalysis; thermal stabilisation of polyvinyl chloride and its blends; thermal characteristics/flammability of polyurethanes, novel polyurethane-based composites; conducting blends of polyaniline, utilisation and recycling of plastic wastes (pyrolysis, gasification).*

The Chair is involved in SOCRATES/ERASMUS European Union Programme.





FACULTY OF CIVIL ENGINEERING



Institute of Building Materials and Structures (L-1)
Institute of Road and Railway Engineering (L-2)
Institute of Building and Transport Management (L-3)
Institute of Structural Mechanics (L-4)
Institute of Computer Methods in Civil Engineering (L-5)
Section of Computational Mechanics (L-6)

Dean:

Prof. Jacek ŚLIWIŃSKI, PhD, DSc

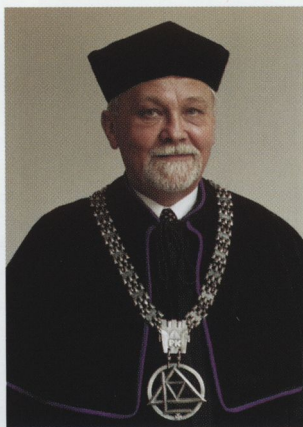
Vice-Deans:

Stanisław Gaca, PhD

Marian GWÓŹDŹ, PhD, DSc, Assoc. Prof.

Leszek MIKULSKI, PhD, DSc

Bogumił WRANA, PhD, DSc, Assoc. Prof.



Address:

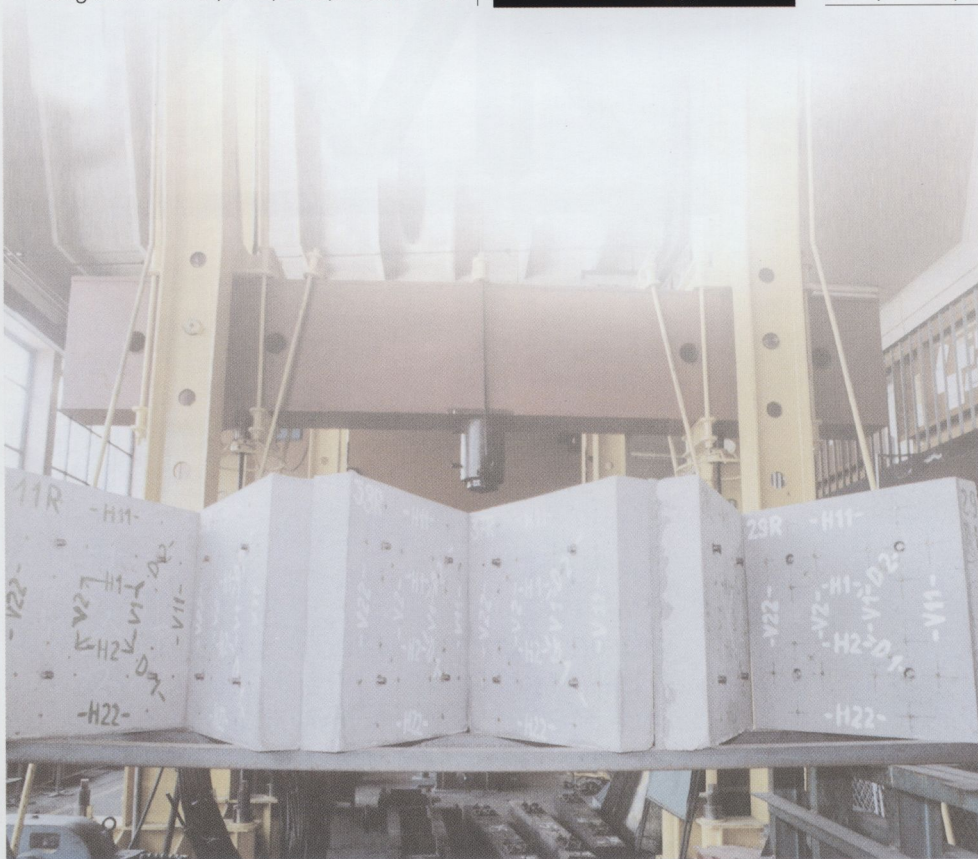
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Degree courses and specialisations:

MSc full time courses (5 years)

CIVIL ENGINEERING

Specialisations: building structures; building technology and organisation; streets, roads and highways; railway lines; computational mechanics; theory of structural mechanics; building management; engineering of transport systems and management; bridge and underground structures; intelligent buildings; hydro- and municipal engineering.

TRANSPORT

Specialisation: management in transport and logistic.

MANAGEMENT and MARKETING

Specialisation: management and marketing in civil engineering.

COMPUTER SCIENCE – interdisciplinary course

Specialisation: computer science in civil engineering.

Vocational full-time (3,5 years) courses

CIVIL ENGINEERING

Specialisations: civil engineering; industry and municipal engineering; real estate management.



External full-time (4,5) courses

CIVIL ENGINEERING

Specialisation: general engineering, building technology and organisation; streets, roads and highways; railway lines; management and marketing in civil engineering.

TRANSPORT

Specialisation: management and marketing in transport.

Postgraduate studies (1 or 2 semesters)

Specialisations: development management and exploitation in municipal public communication; real estate management and assessment (inter-faculty).

Doctoral studies (4 years)

Specialisations: structural mechanics (including computational mechanics); building materials and structures; organisation and management in civil engineering; railway and road construction.

Main research fields:

Solid mechanics: theory of structures (statics, dynamics, stability); experimental methods; numerical analysis and optimisation; design theories and structural reliability; reinforced concrete and pre-stressed structures; steel structures; bridges; industrial structures; building materials technology; building physics; traffic engineering; building technology and management.

Faculty and research staff:

225 employees, including 22 professors (two members of the Polish Academy of Sciences, three members of the Polish Academy of Arts and Sciences), 11 associate professors, 7 PhD, DSc, 97 PhD holders.

Students:

Total number of students: 5080, first year enrolment 1330.

INSTITUTE OF BUILDING MATERIALS AND STRUCTURES (L-1)

Main teaching and research fields: Concrete and other building materials; service life of engineering materials and structures; environment protection; reinforcement and reconstruction of existing structures and buildings; prefabrication technology; technology of reinforced pre-stressed concrete structures; composite structures; probabilistic design methods; steel structures; theory of design of bridges and tunnels; energy-saving buildings design; non-conventional energy sources for building heating.

The Institute is composed of:

- Chair of Building Materials and Structure Protection (L-11)
- Section of Concrete Technology (L-12)
- Section of Theory of Reliability and Design of Metal Structures (L-13)
- Section of Prestressed Structures (L-14)
- Section of Reinforced Concrete Structures (L-15)
- Chair of Bridges and Tunnels (L-16)
- Chair of Steel Structures and Welding (L-17)
- Chair of Civil and Industrial Structures (L-18)

INSTITUTE OF ROAD AND RAILWAY ENGINEERING (L-2)

Main teaching and research fields: Road and intersection design; pavement technology and design; transport system planning; traffic and municipal transport modelling; simulation and management; highway and railway computer design; ef-



fects of roads and traffic on environment; railway track reliability; railway modernisation, maintenance and renewal; railway optimisation and technology.

The Institute is involved in the following European Union Programmes: EUREKA, SOCRATES/ERASMUS.



The Institute is composed of:

- Chair of Road and Traffic Engineering (L-21)
- Section of Railway Track Engineering (L-22)
- Chair of Transport Systems (L-24)

INSTITUTE OF BUILDING AND TRANSPORT MANAGEMENT (L-3)

Main teaching and research fields: Systems of new building technologies; project planning; building economics and organisation; construction management; cost estimation and control; ergonomics; mechanisation of building works; technology and organisation of repair and modernisation works.

The Institute is composed of:

- Section of Building Economy (L-31)
- Section of Building Technology and Organisation (L-32)
- Section of Building Management (L-33)
- Section of Transport Management and Control (L-34)
- Section of Transport Organisation and Economy (L-35)

INSTITUTE OF STRUCTURAL MECHANICS (L-4)

Main teaching and research fields: Bases of determination and evaluation of seismic and parasismic influences on structures; dynamic identification of tower structures and multi-story buildings; investigation of dynamic properties and dynamic diagnostics of buildings; engineering structures and machine foundations; soil-structure-interaction under dynamic loads; computer engineering systems used in structure modelling; computer methods used in dynamics analysis of structures; methods and calculations of strength in analysis of boundary states of structures and their elements made from elastic, plastic and rheological materials; methods of optimal control in mechanics of elastic systems; mechanics of contact.

The Institute is composed of:

Chair of Building Statics and Dynamics (L-41)

Chair of Strength of Materials (L-42)

Chair of Mechanics of Continuous Media (L-43)

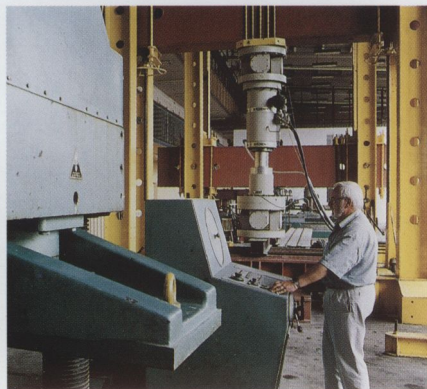
Laboratory of Structure Mechanics (L-44)

Laboratory of Wind Engineering (L-45)

INSTITUTE OF COMPUTER METHODS IN CIVIL ENGINEERING (L-5)

Main teaching and research fields: Computational methods in structural mechanics and theory of structures; finite elements methods; numerical methods; analysis of non-linear algebraic equations and integration of ordinary differential equations; optimum design of structures; optimum design under vibration and buckling constraints; analysis of inelastic structures, especially concrete structures; stability analysis of structures, plates and shells; application of artificial neural networks to the analysis and optimum design of theory of structures.

The Institute is involved in CEEPUS European Union Programme.



The Institute is composed of:

Chair of Computational Mechanics of Structures (L-51)

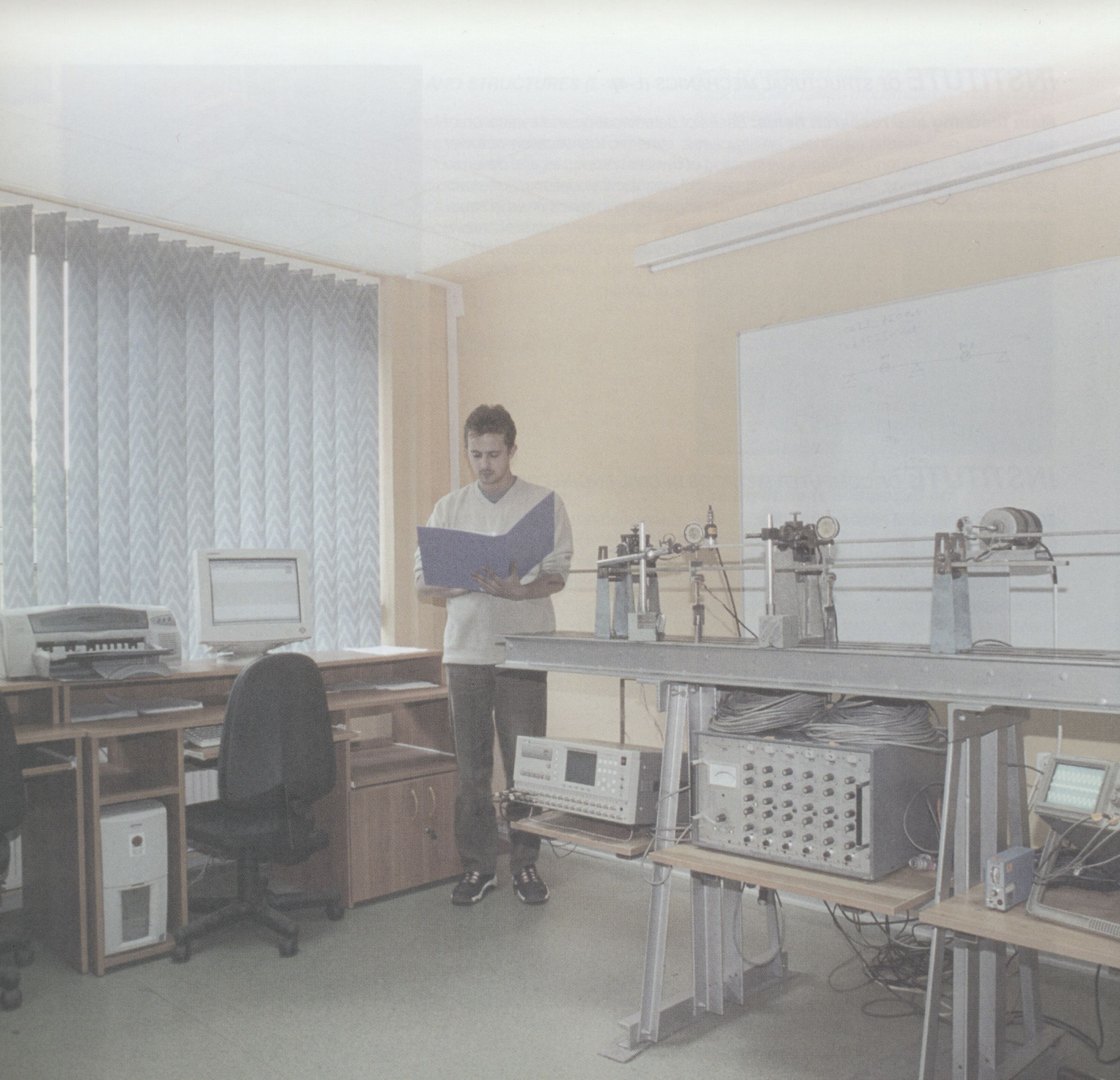
Section of Computational Methods (L-52)

Computer Laboratories (L-53)



SECTION OF COMPUTATIONAL MECHANICS (L-6)

Main teaching and research fields: Computer methods of analysis and synthesis of structures as well as various boundary value problems in mechanics; research on: methods of physically based approximation of experimental data; generalised finite difference method at arbitrary irregular grids and combined FEM/FDM system of analysis; methods of residual stress and strain analysis especially referred to railroad rails and vehicle wheels; methods of analysis of pneumatic membranes and cables.



**FACULTY
OF ENVIRONMENTAL
ENGINEERING**



*Institute of Water Engineering and Management (S-1)
Institute of Geotechnics (S-2)
Institute of Water Supply and Environment Protection (S-3)
Section of Hydro-Structures Mechanics (S-4)
Institute of Heat Engineering and Air Protection (S-5)*

Dean:

Krzysztof KNAPIK, PhD, DSc, Assoc. Prof.

Vice-deans:

Bogdan WOLSKI, PhD, DSc, Assoc. Prof.

Piotr GRYGLASZEWSKI, PhD

Wiesław GADEK, PhD

Jerzy MIKOSZ, PhD



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Degree courses and specialisations:

ENVIRONMENTAL ENGINEERING (full-time and part-time)

Specialisations: water supply; wastewater treatment and disposal, water quality protection and solid waste management; water engineering and water resource management; heat engineering, air-conditioning, air protection and thermal utilization of solid waste.

CONSTRUCTION (full-time)

Specialisations: water and sanitary construction; geotechnics

COMPUTER SCIENCE (full-time and part-time)

Specialisation: Applied computer science in environmental engineering

Main teaching and research fields: *Surface and groundwater engineering and protection: qualitative and quantitative analysis, modelling, application of computer methods for analysis and forecasting; dynamics of surface water and groundwater: research, modelling and application of computer methods for simulation and forecasting; water management systems and water structures: planning, design methods, and development of operational and maintenance technologies; fundamentals of concrete and soil water structures: development of new technologies in ground foundation and geotechnical basics of construction; new methods of analysis of statics and dynamics of structures; water supply and sewage disposal systems: planning, development of new designing and operational methods for systems and*



objects in view of their increased reliability; water and wastewater treatment systems: unit processes analysis, development of high effective treatment technologies, simulation and optimisation of treatment processes; new methods of treatment process designing; microclimate systems: methods creation, control and maintaining of microclimate inside buildings, renewable energy utilization; treatment of solid waste and exhaust gases: development of gas treatment technologies and new methods of postindustrial waste processing; development of new measurement methods and environmental monitoring systems.

Faculty and research staff:

241 employees, including: 12 full professors, 19 PhD, DSc, and 78 Ph.D. holders.

Students:

Total of 2462 students enrolled, including: 1596 full-time students (first year enrolment – 484) and 866 part-time students (first year enrolment – 187).

INSTITUTE OF WATER ENGINEERING AND MANAGEMENT (\$-1)

Main teaching areas: *Engineering and protection of water resources; flood and drought protection; planning and operation of water objects and systems, and water resources management; water engineering management; water engineering for planning, design and operation of water structures and systems.*

Main research fields: *Hydraulics of river channels with solid and moving bed, including ecological condition in freshwater; modelling of unit processes in watersheds; modelling and application of computer methods for simulation and forecasting of flows from mountain watersheds; research and modelling of river and reservoir dynamics; methodology of water and economic balances; water resources exploitation and protection; outflow control (including flood protection) in water systems; modelling and planning of wa-*

ter management systems; modelling and planning of watershed infrastructure; examination of technical condition of water structures and development of new modernization technologies; field and laboratory experimental research on dynamics of surface water and water structures; development of measurement systems.

The Institute is composed of:

Section of Hydraulics and Hydromechanics (Š-11)

Section of Hydrology (Š-12)

Section of Water Management (Š-13)

Section of Hydro-Structures Engineering (Š-14)

INSTITUTE OF GEOTECHNICS (Š-2)

Main teaching fields: Geotechnics and ground foundation

Main research fields: Theoretical and experimental problems in soil and rock mechanics; new technologies in ground foundation; geotechnical problems in historical monument revalorization; application of industrial wastes in geotechnics; petrographic, geological and hydrogeological problems in environmental engine-



ering and construction; surveying of structure deformation; forecasting and settling of landslides.

The Institute is composed of:

Section of Engineering Geodesy (Š-21)

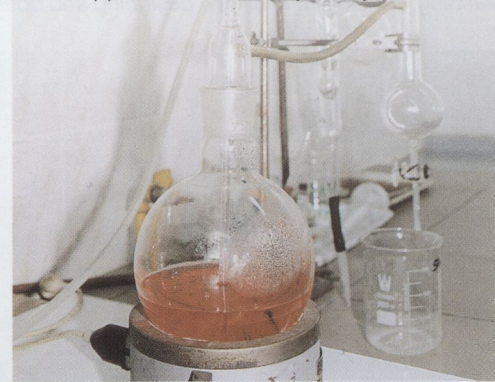
Section of Engineering Geology and Hydrogeology (Š-22)

Section of Soils Mechanics and Foundation (Š-23)

INSTITUTE OF WATER SUPPLY AND ENVIRONMENT PROTECTION (Š-3)

Main teaching fields: Water supply and sewage disposal; water and wastewater treatment; environmental monitoring and protection of environment.

Main research fields: Water supply in municipal and rural areas and industrial water supply; water transfer, equalization tanks and distribution networks; application of reliability theory in water and



sewage networks; surface water protection; analysis of water and sewage systems operation; devices for retaining and disposal of sewage; wastewater treatment and water renewal; sewage sludge processing and management; water and wastewater analyses; drinking and industrial water treatment technology; treatment of municipal and industrial wastewater and rainwater; sludge utilization and management; cost- and energy-efficiency of wastewater treatment plant; high-effective

wastewater treatment; biological nutrient removal from wastewater; sanitary biology with emphasis on hydro-biology and epidemiology; environmental monitoring; solid waste processing and utilization; landfill run-off treatment.

The Institute is composed of:

Chair of Water Supply and Sewage Removal (Š-31)

Chair of Water and Wastewater Treatment (Š-32)

Section of Environment Protection Principles and Systems (Š-33)

Section of Sanitary Biology (Š-34)



SECTION OF HYDRO-STRUCTURE MECHANICS (Š-4)

Support of major teaching areas in: technical mechanics; strength of materials; structure mechanics; application of computer methods in construction.

Main research fields: Application of numerical methods for analysis and construction of structures, including hydro-structures; methods and computer programs used for designing and analysis of conditions (including boundary conditions) in concrete structures; investigation of static and dynamic processes in ground structures under filtration conditions; theory of homogenization in mechanical analysis applied for brick and stone walls.

INSTITUTE OF HEAT ENGINEERING AND AIR PROTECTION (Š-5)

Main teaching fields: Utilization of energy in designing, construction and operation of micro-climate generating devices; technological processes, devices and installations for treatment of flue gases; system research in solid waste management,

application of thermal methods for solid waste treatment and utilization of solid waste and gases for energy generation; fundamentals of environmental engineering for micro-climate generation, control and protection.

Main research fields: Mathematical modelling of heat and air exchange inside buildings; optimisation of heating, ventilation and air-conditioning systems; energy-efficient methods of heat supply to buildings, including renewable energy



sources; dust extraction, desulphurization and denitrifying of flue gases and utilization of postprocessing residua; analysis of solid waste management systems from sustainable development perspective; diffusion of atmospheric pollution and control methods for greenhouse and ozone-depleting gases emission; environmental management methods; application of modern measurement and data acquisition methods; modelling of thermo-physical properties of thermodynamic substances utilized in coolers and heat pumps, and analysis of their effects on environment.

The Institute is composed of:

Section of Thermal Processes, Metrology and Air Protection (Š-51)

Section of Heating, Thermal Systems and Waste Utilization (Š-52)

Section of Ventilation, Air Conditioning and Refrigeration Systems (Š-53)



FACULTY OF MECHANICAL ENGINEERING



- Institute of Mechanics and Machine Design (M-1)*
- Institute of Materials Science and Metal Technology (M-2)*
- Institute of Mobile and Transport Machines (M-3)*
- Institute of Automobiles and Internal Combustion Engines (M-4)*
- Institute of Industrial Apparatus and Power Engineering (M-5)*
- Institute of Production Engineering (M-6)*
- Section of Applied Computer Science (M-7)*
- Institute of Railway Vehicles (M-8)*

Dean:

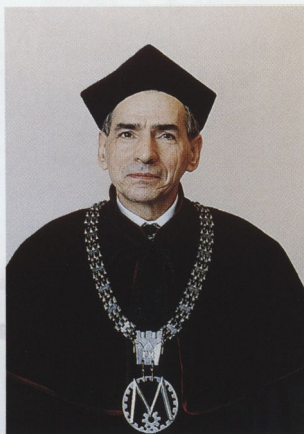
Prof. Stanisław MICHAŁOWSKI, PhD, DSc

Vice-Deans:

Bogdan BOCHENEK, PhD, DSc

Zygmunt SZLACHTA, PhD, DSc, Assoc. Prof.

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Degree courses and specialisations

Types of courses: MSc regular course, undergraduate vocational, part-time courses, as well as MSc postgraduate courses, doctoral studies.

MECHANICS AND MACHINE DESIGN

Specialisations: Industrial systems and equipment; automotive vehicles operation; engineering of means of transportation; power engineering; medical engineering; computational mechanics; modelling and monitoring of machines; automobiles and tractors; internal combustion engines; power engineering systems and equipment; refrigeration and air conditioning systems; advanced technologies in machine design; application of computer science in machine design.

AUTOMATIC CONTROL ENGINEERING AND ROBOTICS

Specialisations: Automation of manufacturing processes, multimedia in industrial systems.

MATERIALS ENGINEERING

Specialisations: Construction materials; management of quality.

PRODUCTION MANAGEMENT AND ENGINEERING

Specialisations: Organisation and management of industrial plants; application of computer science in production management systems.

TRANSPORT

Specialisations: Transport systems and equipment; transport management and operation.

COMPUTER SCIENCE

Faculty and research staff:

220 employees, including 34 professors (one full member of the Polish Academy of Sciences, one full member of the Polish Academy of Arts and Sciences, one corresponding member of the Polish Academy of Arts and Sciences, two foreign members of the Russian Academy of Engineering Sciences, one member of the Austrian Academy of Sciences, one member of the Ukrainian Academy of Sciences), 37 associate professors, 118 PhD holders.

Students:

Overall number: 4586, including regular daily courses 2477, engineering courses 2109. First year daily courses enrolment 706.

INSTITUTE OF MECHANICS AND MACHINE DESIGN (M-1)

Main teaching and research fields: Mechanics of inelastic bodies and structures under constant and variable loads; structural stability; optimal structural design under stability constraints and in creep conditions; toroidal shells; elbows and bellows; helical springs; decohesive carrying capacity; investigation of shape of bodies subject to full plastification at the stage of collapse; continuum damage mechanics; dynamics and design of gear systems; design and optimisation of pressure vessels;

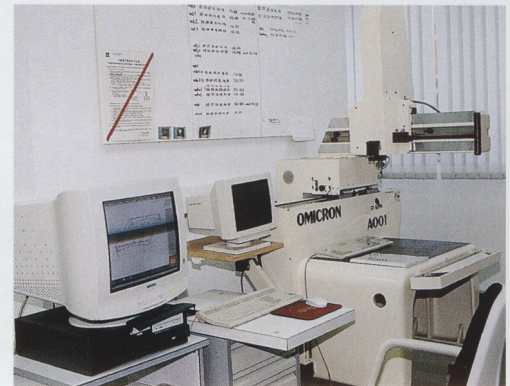


mini-wind power plants; numerical analysis of structures; vibration of continuous and discrete – continuous systems; dynamic analysis of pneumatic – mechanical vibroinsulation systems; analysis and optimisation of active vibroinsulation systems; experimental stress and strain analysis; experiment and design methodology in biomechanics, biomaterials, implants and surgical instruments; mechanical properties of plastics and composites; fatigue and tribology of plastics; mechanics of composite materials and structures.

The Institute is involved in SOCRATES/ERASMUS European Union Programme.

The Institute is composed of:

Section of Mechanics of Deformable Bodies (M-11)
Section of Machine Design (M-12)



INSTITUTE OF MATERIALS SCIENCE AND METAL TECHNOLOGY (M-2)

Main teaching and research fields: Physical metallurgy of metals and alloys; steels for low and high temperatures; micro-alloyed structural steels; materials for powder industry; corrosion resistant materials; effect of non-metallic inclusions on steel properties; fracture properties and decohesion mechanisms in metals; quantitative metallography and fractography, heat and thermochemical treatment; thermomechanical treatment; theoretical and experimental foundations of plastic working; workability; welding of metallic materials; weldability and selection of materials for welded structures; welded joints properties; foundry: alloy crystallization; modern foundry technologies; serviceable properties of casts; powder metallurgy; sintering tools; methodology of experiments: CADEX programming; computer applications in steel materials engineering.

The Institute is composed of:

- Section of Physical Metallurgy (M-21)
- Section of Plastic Working (M-22)
- Section of Heat Treatment (M-23)
- Section of Welding Technology (M-24)
- Unit of Foundry Engineering (M-25)
- Section of Powder Metallurgy (M-26)
- Mechanics Laboratory (M-27)



INSTITUTE OF MOBILE AND TRANSPORT MACHINES (M-3)

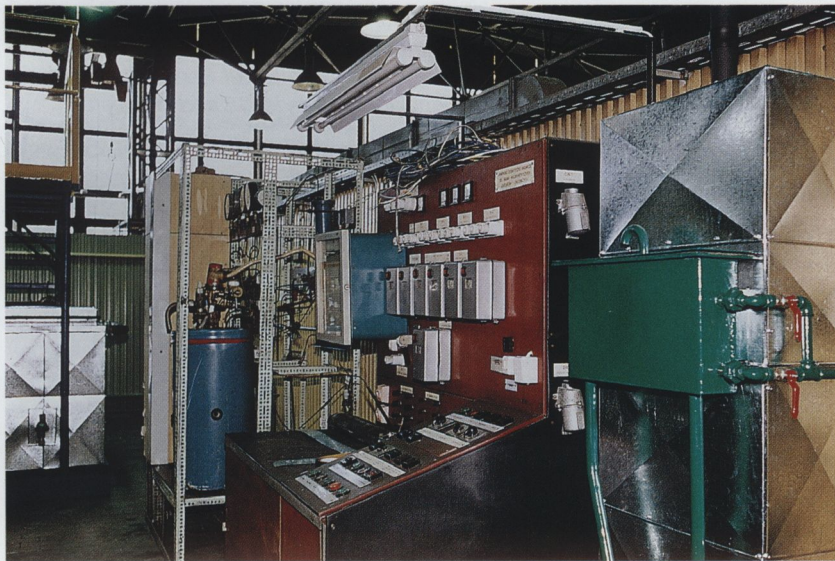
Main teaching and research fields: Computation methods and optimisation of cranes and conveyors constructions, dynamics of hydro-mechanical and electrical drives; transportation systems analysis, diagnostics and testing of heavy duty machines, including thermal and sound insulation; adaptation of heavy duty machines for extreme climatic and environmental conditions; modelling and design of hydraulic drives and control equipment; diagnostics and testing of dynamical properties of power systems; research on automation of heavy duty motion; development of methods for structural, kinematic and dynamic analysis of mechanisms and manipulators; bases of synthesis and design of mechanisms of heavy duty machines; application of methods of the theory of mechanisms used in testing and development of mechanisms used in heavy duty machines and vehicles; parametric optimisation of earth-moving machinery and equipment; dynamics of mobile heavy duty machines, in particular the influence of chassis type on kinematic excitation; methods of synthesis and design of optimum active systems for reduction of low-frequency vibration in heavy duty machines with hydraulic effectors; preparation of technical documentation for mechanical engineering, using various computer software such as (AutoCAD, InterCAD, WellCAM); CAD/CAM systems, specialised engineering software (CAE) and computer simulation software such as ACSL, NISA, Working Model, VisSim.

The Institute is composed of:

- Section of Crane and Transport Machinery Design (M-31)
- Section of Drive Systems and Automation of Heavy Duty Machines (M-32)
- Section of Theory of Mechanisms and Manipulators (M-33)
- Section of Computer Engineering Graphics (M-34)

INSTITUTE OF AUTOMOBILES AND INTERNAL COMBUSTION ENGINES (M-4)

Main teaching and research fields: Vehicle dynamics: effects of wheel guiding mechanisms parameters on vehicle handling; modelling of a passenger car using multibody dynamics; vehicle handling; measurement, recording and evalu-



ation methods of vehicle dynamics (steady state circular test, transient response test); transfer of interaction forces between tyres and roadway; characteristics of tyres; methodology of estimation of parameters of vehicle stability and steerability; ABS and ASR systems for 4 WD vehicles – computer simulation and experimental research; transmission and drive systems optimisation for low emissions and fuel economy; hybrid and electrical drive systems; reduction of exhaust emissions; application of alternative and renewable fuels in engines (e.g. natural gas, alcoholic fuels, vegetable oils); noise and vibration in engines; turbo-charging processes; methods improving engine efficiency and fuel economy; low heat rejection engines; utilisation of waste energy of engines; computer simulation of engine processes; CAD of engine combustion; optimisation of inlet ports and air motion in combustion chambers; fuel injection processes and spray characteristics; design of fuel injection equipment; cold starting of diesel and spark ignition engines; fuel systems for spark ignition engines; development of pneumatic fuel injection systems; development of two-stroke engines; automobile and engine diagnostics; automobile tribology; automobile production automation; energy and material saving methods and environment friendly technologies in automobile and engine production; application of

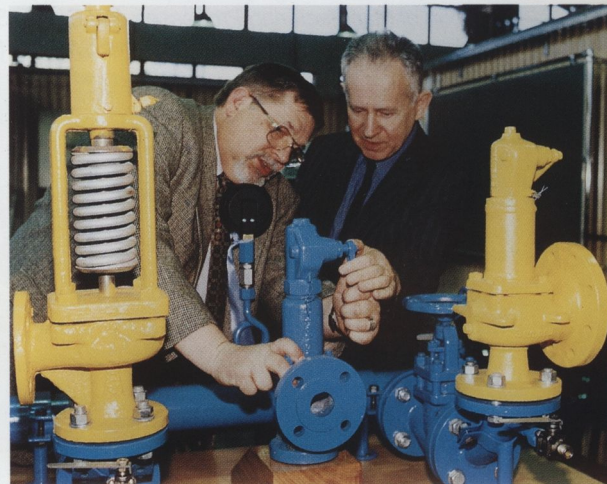
plastics in automobiles; durability and reliability improvement methods in automobile production.

The Institute is composed of:

Chair of Automobile Design (M-41)
Section of Automobile Dynamics and Testing (M-42)
Section of Automobile Exploitation (M-44)
Section of Automobile Production and Safety Engineering (M-45)
Section of Spark Ignition Engines (M-46)
Section of Diesel Engines (M-47)
Chair of Special Engines (M-48)

INSTITUTE OF INDUSTRIAL APPARATUS AND POWER ENGINEERING (M-5)

Main teaching and research fields: Research on and design of apparatus and equipment for production and distribution of dispersed systems; heat and mass transfer processes, air pollution control and equipment; optimisation of thermodynamic and flow processes; non-Newtonian fluids dynamics and rheometry; measurements of thermal properties of fluids and solids; improvement of balance methods and thermal systems measurement; computer simulation of reciprocating compressors; research on pres-



sure pulsation in compressed gas pipelines; dynamics of steam boilers and power generating blocks; inverse heat conduction problems; remnant life prediction of pressure components; refrigeration and air conditioning; heat pumps and waste heat utilisation equipment.

The Institute is involved in TEMPUS European Union Programme.

The Institute is composed of:

Chair of Industrial Equipment (M-51)

Section of Fluid Mechanics (M-52)

Section of Thermodynamics and Heat Machines Measurements (M-53)

Chair of Power Engineering Machines and Installations (M-54)

Section of Refrigeration and Air Conditioning (M-55)

INSTITUTE OF PRODUCTION ENGINEERING (M-6)

Main teaching and research fields: Automation and robotics of production processes in engineering industry; machining methods and computer controlled systems; complex automation of machining, CAD/CAM design in technology, machining tools and elements; flexible manufacturing systems; automated machine tools; special technologies – e.g. wear resistant coating for tools and machine elements; methods and means of electromachining; tests on measurement and multicoordinate machines, application of laser in testing machines and equipment accuracy; design and diagnostic tests of machines; simulation and optimisation of production systems; theoretical and experimental research on hydraulic control elements.

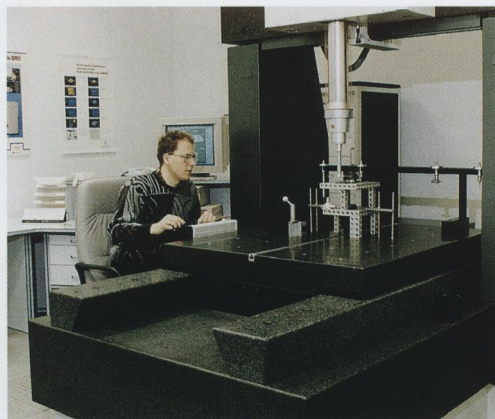
The Institute is involved in CEEPUS European Union Programme.

The Institute is composed of:

Chair of Manufacturing Systems (M-61)

Section of Manufacturing Processes and Quality Systems (M-62)

Section of Machining and Cutting Tools Systems (M-63)



SECTION OF APPLIED COMPUTER

SCIENCE (M-7)

Teaching: 2nd level of teaching of computer science: Computer Methods for Engineers (2nd year of studies), computer science specialisation in Application of Computer Science in Machine Design coordinated with Institute of Materials Science and Metal Technology (4th and 5th years of studies); servicing internet access for students (student laboratories for 15 and 30 seats).

Research: Developing of concept of experimental design over irregular case grid- topographic designs (investigation of artificial joint hardness); intelligent experimental design (self-modifying case grid); criteria of case distribution homogeneity; developing of expert systems with knowledge base for computer aided design and analysis of experiments; application of artificial neural networks in theory of experiment; application of genetic algorithms in design of experiments; application of adjustment calculus in theory of experiment. Services: training courses in engineering software and office software.

INSTITUTE OF RAILWAY

VEHICLES (M-8)

Main teaching and research fields: Tractive vehicle and rail car construction and design; drive and brake computation; braking system of rapid passenger trains and long freight trains experimental research; rail vehicle dynamics; dynamics of vehicle suspensions and drives; vibro-insulation systems; active and passive suspension; computational simulation of vehicle-track interaction on complex continuous models; rolling stock new technology of production and repair; new construction materials for rail vehicle elements; transport means' selection for modern transport markets; logistics in rail transport; technical infrastructure of rail vehicles; diesel locomotive diagnostics; rail vehicles and rolling stock re-

liability optimisation; basic types of wear of rail vehicles in relation to their reliability; investigation of technical operation processes; computer aided technical operation system; technical condition diagnostics of rail vehicles; ecology and environment protection in rail transport; computer simulation of technical operation processes; data bases of rail vehicle technical operation systems.

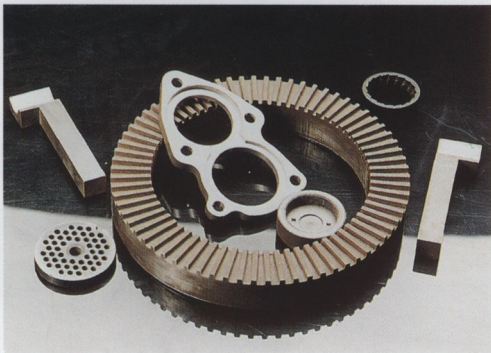
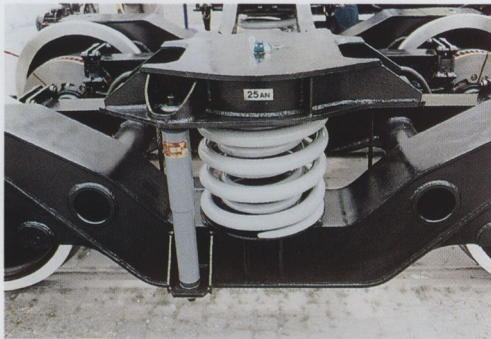
The Institute is involved in EUREKA European Union Programme.

The Institute is composed of:

Section of Rail Vehicle Dynamics
and Design (M-81)

Chair of Reliability and Technical Operation
of Vehicles (M-82)

Unit for Technology and Infrastructure
of Rail Vehicles (M-83)





INTER-FACULTY UNITS FOR TEACHING

- International Educational and Urban Study Centre (O-2)*
- Foreign Languages Centre (O-3)*
- Sports and Recreation Centre (O-4)*
- Pedagogy and Psychology Centre (O-5)*



Acting Dean:
Jan Kazior PhD, DSc,
Assoc. Prof.

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INTERNATIONAL EDUCATIONAL AND URBAN STUDY CENTRE (O-2)

The International Educational and Urban Study Centre was created at CUT in 1985 as an inter-faculty unit following the decision of the Minister of Science and Higher Education. The original name of the unit was Urban Educational Centre. The aim of the Centre was to train urban planners, especially from developing countries, as well as to undertake consulting and professional development activities in the urban and regional planning fields. Over the years the activities of the Urban Educational Centre have expanded and the unit in year 2002 became International Educational and Urban Study Centre.

ACADEMIC PROGRAMMES

Preparatory courses for PhD Studies

The International Educational and Urban Study Centre offers courses, in cooperation with the Department of Architecture, aimed at preparing candidates from foreign countries for PhD studies. The syllabus covers topics related to the doctoral dissertation, Polish culture, as well as topics related to the candidates' interests.

PhD courses

The courses are run in English, but can be combined with the study of Polish language. The Centre offers PhD courses in the fields of urban and regional planning in cooperation with the Department of Architecture for foreign students. Depending on the candidates' previous experience, the courses take between two and four years to complete. Courses are offered in English, but can be combined with the study of Polish language.

Professional Practice

The Centre is well placed to undertake professional work in urban planning, architectural design and site planning, notably in developing countries. Specialists from around the world cooperate closely with the Centre. This situation provides an unusual opportunity to undertake practical interdisciplinary projects. PhD candidates can be involved in practical projects, thereby improving their professional experience and expertise.

Preparatory Course for Foreign Students was launched in 1988 to provide preparation for foreign students intending to study at Polish universities.

Preparatory course for studies of architecture

The course aims to prepare foreign students to undertake architectural studies in Poland. The course comprises two semesters. Topics include Polish language, history of art and architecture, free hand drawing and mathematics.

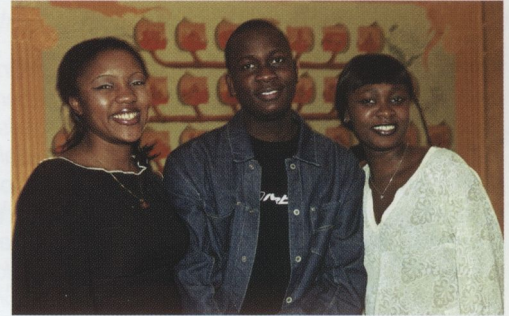
Over the course of the year, students gain a good command of Polish language and on completion a Study Certificate is awarded. At this stage, students are generally proficient in oral and written Polish in specialist fields and are able to take lecture notes in Polish.

On completing the course, students have at their disposal a vocabulary of 7000 words, including 1000 specialist terms related to their field of study.

The central part of the programme is an intensive course in free hand drawing adapted to the requirements of the architecture degree studies.

The aim of the mathematics course is to ensure the student is proficient in terminology and to eliminate curriculum differences between Polish and foreign schools.

There are 1185 contact teaching hours, with 840 hours of Polish language learning, 225 hours of free hand drawing and 120 hours of mathematics. Successful completion of the courses in Polish language, rudiments of the history of architecture and



town planning, free hand drawing and mathematics leads to a Certificate that gives graduates the right to study at departments of architecture at all Polish universities.

Preparatory course for technical, economical and the other studies

The course is designed for foreign students interested in studies other than architecture, as well as for those interested in architecture study but who have insufficient competence in drawing skills. The course comprises two semesters and includes the Polish language, mathematics and physics instruction.

The Polish language course corresponds to that for candidates for architectural studies, except that vocabulary in the second semester is extended to include technical terms.

Mathematics and physics aim to provide candidates with proficiency in terminology and eliminate curriculum differences between Polish and foreign schooling.

The course includes 1185 contact teaching hours (a teaching hour is 45 minutes) leading to examinations in Polish language, mathematics and physics. On successful completion, a Certificate gives graduates the right to study at all technical universities in Poland.

Polish language for PhD and postgraduate candidates

A year long intensive course comprising 840 contact teaching hours (each teaching hour is 45 minutes). Examinations are as above. Vocabulary is adapted to the needs of the candidate.

FOREIGN LANGUAGES CENTRE (O-3)

Areas of activities

Six languages are taught: English, French, German, Italian, Russian and Ukrainian at different levels. The courses are offered for beginners, intermediate and advanced students. The aim is to prepare students to use specialist texts in a foreign language and be able to communicate in everyday situations. Specialist textbooks meeting the needs of the students of particular faculties have been worked out by the teachers of the Centre. The Centre is equipped with modern teaching devices: video, cassette recorders, satellite dishes that make programmes from all over Europe available and a library of over 10 000 volumes plus monthly and quarterly magazines both foreign and published in Poland. The Centre keeps up useful contacts with foreign institutions – the British Council, International House, Teacher Training College GamaBell, the Goethe Institute, Institut Français, Società Dante Alighieri Cimitato di Firenze, which cooperation helps in upgrading the teachers' qualifications and obtaining the latest teaching materials.

The Centre provides services in translation, interpretation and language consultancy, organizes and runs paid language courses which are particularly aimed at the University academic staff as well as students who would like to begin or continue foreign language learning. Since 2001, together with the accredited Rzeszów centre, the Centre has been carrying out the TELC examinations, approved by the countries of the European Union.

SPORTS AND RECREATION CENTRE (O-4)

The Sports and Recreation Centre at the Cracow University of Technology has existed since 1951. At the moment, there are sixteen professional academic teachers employed at the Centre. The teachers are at the same time highly specialised coaches of various sport disciplines. The Centre has its own sports facilities: two gyms (one of them, opened in 1996, is situated at 17 Kamienna Street; it hosts 171 spectators), three body building clubs, an aerobics room, sports fields and tennis courts. Besides, the Centre also has access to a skating rink and a swimming pool.

Physical education is obligatory for all the students at all faculties for three or four terms. A wide selection of various sport disciplines, such as team games, swimming, skating, aerobics, athletics, tennis, skiing, rehabilitation gives the students an opportunity of a varied physical development.

The teachers at the Physical Education and Recreation Centre also work as coaches for various sports sections of the Academic Sports Club. The sections focus on professional sport disciplines.

Apart from teaching and coaching the Centre together with the Academic Sports Association, organises many national sporting events in which everybody can take part. The

interfaculty sailing and skiing courses create an additional possibility of making a wider group of students, professors and university staff interested in the idea of a "Healthy Lifestyle".

PEDAGOGY AND PSYCHOLOGY

CENTRE (O-5)

The Centre runs courses for university graduates and young academic staff to improve their teaching skills. The participants obtain qualifications to work at various schooling systems. Moreover, the Centre runs postgraduate courses in the area of local education management, career advising, education in the area of economics, teaching entrepreneurial skills.

Teaching programmes cover such subjects as work education, interpersonal communication, methods of studying, preparation for professional career, music-assisted education, etc.

Teaching projects are assisted with numerous professional/vocational manuals and series of course lectures. Multimedia equipment which helps in computer programming of integrated, subject and modular engineering courses is at students' disposal.

The Centre closely co-operates with vocational schools and various national institutions; it also provides a wide offer of conferences and seminars.



OTHER UNITS

*Technology Transfer Centre at Cracow University of Technology,
Innovation Relay Centre South Poland
and Regional Contact Point for EU Framework Programmes*

Centre of Information Systems

Centre for Education and Organisation of Quality Management

The Library of Cracow University of Technology

Editorial Board of Publications

Printing House

Careers and Promotion Service



TECHNOLOGY TRANSFER CENTRE – CRACOW UNIVERSITY OF TECHNOLOGY. INNOVATION RELAY CENTRE SOUTH POLAND AND RE- GIONAL CONTACT POINT FOR EU FRAMEWORK PROGRAMMES

Technology Transfer Centre (TTC CUT) created at Cracow University of Technology was based originally on the activities of FEMIRC – Fellow Member to the UE Innovation Relay Centre Network co-financed by European Commission and Regional Contact Point accredited and financed by the State Committee for Scientific Research. TTC CUT incorporates also a patent attorneys' section and is in progress of being accredited by the Polish Agency for Enterprise Development. At the moment the TTC CUT is the coordinator of the Innovation Relay Centre (IRC) South Poland, which is one of the three similar institutions existing in Poland.

The task of the IRC South Poland is to facilitate the transnational technology and innovation transfer from and into the region of Małopolska and Silesia involving first of all small and medium enterprises. The Regional Contact Point (RCP) run by CTT CUT is the largest in Poland. Its statutory tasks include information, advice and training on the techniques of applying for EC research and development funds. The clients of RCP include regional research community, industry including SMEs, NGOs and individuals interested in European Framework Programmes.

TTC CUT has established itself as an institution with very well developed contacts with European technology transfer sector and innovation circles on one hand and with their regional counterparts on the other. TTC CUT has also represented the Małopolska Region in two thematic networks of Innovating Regions of Europe, one devoted to strengthening links between research and industry, another one dealing with regional innovation strategies.

Further information can be obtained at Tel: +48 (12) 628 28 45; tel/fax: +48 (12) 632 47 95, E-mail: ctt@transfer.edu.pl; ircpk@transfer.edu.pl; rpk@transfer.edu.pl

CENTRE OF INFORMATION SYSTEMS

The aim of the Centre is to find financial funds from research run together with firms related to the Special Economic Zone. The chief goal is to cooperate commercially with software producing companies to assist in management and control of social welfare institutions, computer aided integration of production and decision taking processes.

Main tasks of the Centre:

- cooperation in research undertakings with firms located in the "Kraków" Economic Zone;
- training for selected students of CUT Faculties in the field of computer science systems application;
- postgraduate courses (on commercial bases), including consultancy; courses for managerial staff of companies, local government institutions in the field of implementation and use of computation systems.

The Centre of Information Systems is an institution which helps cooperate marketing

and computer software agencies and CUT. The graduates have a chance of participating in Information Society Technology development.

CENTRE FOR EDUCATION AND OR- GANISATION OF QUALITY MANAGEMENT

The aims of the Centre are:

- courses and training periods in industrial safety, ISO standards on quality management for managerial and production staff;
- preparation of research and teaching laboratories for accreditation;
- preparation for introducing quality management in teaching process, research and school management;
- measurement and assessment of labour posts in view of professional risk, and other industrial safety risks.

THE LIBRARY OF CRACOW UNI- VERSITY OF TECHNOLOGY

The Library of Cracow University of Technology is situated in the main campus at Warszawska Str., on Czyżyny Campus (a Departmental Library of Mechanical Engineering) and at the CUT student hostels. As far as the size of collection is concerned, the Library of CUT is the third scientific library in Cracow.

The Mission of the Library is to support education and research conducted at CUT and to provide integrated library and information services to its users including access to information on scientific achievements in Poland and world-wide. The Library seeks also to assist students in their self-education and overall personal development as well as to preserve the library collection for future generations.

Objectives of the Library:

To establish a learning environment that is stimulating, motivating and both academically and culturally enriching;

To shape the library collection adequately to its mission and goals.

To create a user-centred range of services and to liaise with the University staff, students and management to maintain a close understanding of their needs;

To identify and provide an easy access to all forms of information and literature for the staff and students of the University within a framework of accessibility and cost-effectiveness.

To promote the use of the library as a learning and research tool;

To create a good image of the library within the academic society and to cooperate with other Polish and foreign libraries;

To encourage and support permanent education of the library staff;

To conduct research in library and information science and related disciplines.

The primary source of information of the library resources is its open public access catalogue available on the Internet. Registered users can also maintain remotely their library accounts.

The overall collection of the networked libraries of CUT is about one million volumes. It reflects the University of CUT Profile of education. The collection consists of books, journals, dissertations, standards, patents, catalogues, price-lists etc. Electronic resources include a wide range of e-journals as well as CD and on-line databases.

The library moderates a discussion list and the WWW service at <http://www.biblos.pk.edu.pl>



EDITORIAL BOARD OF PUBLICATIONS

The editorial activities cover three types of publications:

Scientific publications, such as: Scientific Papers of Cracow University of Technology, (Series: Architecture, Civil Engineering, Environmental Engineering, Mechanics, Chemical Engineering and Technology, Electrical and Computer Engineering, Basic Sciences, Humanities, Social and Economics Sciences), conference proceedings, Technical Bulletin (its tradition dates back to the beginning of the 20th century, as an affiliation of the Polish Polytechnic Association in Lvov). It is published in series: Architecture, Civil Engineering, Chemistry, Mechanics and Electrical Engineering.

Teaching materials, i.e. academic books, manuals and other teaching aids.

Reference materials, such as catalogues, illustrated folders and leaflets on the activities of the school or particular faculties.



PRINTING HOUSE

Area of activities:

Printing of Scientific Papers, manuals and other teaching aids, books of reference, conference proceedings as well as forms for the needs of the school administration.

CAREERS and PROMOTION SERVICE

The aim of the Careers and Promotion Service is to help graduates in their attempt to find employment. Students' counsellors are well qualified to give professional advice and organise courses to help students to take decisions concerning their future career. Another important role of the Careers Service is to establish contacts with future employers, organise employers' presentations at the University and provide information about various offers of occupation (permanent, part-time) as well as employers' requirements. The Office offers free distribution of guidebooks for graduates and gives access to a comprehensive register of firms/companies. Twice a year INTRO workshops are arranged (Introduction to Labour Market and Engineering Employment Market). The CUT Careers Service is a member of the Polish Careers Services Net and co-operates with similar institutions in Great Britain, Holland and Germany. Since 2003 the unit has also been dealing with promotional activities of the university.



POLITECHNIKA KRAKOWSKA

STUDENTS' ORGANISATIONS, GALLERIES, CLUBS and RECREATION CENTRES



Students' Union University Council
Students' Sports Association – University Club
The “NZZ” Independent Students' Association
Polish Students' Association (“ZSP”)
“Nowinki” Student Broadcasting Centre
“Kwadrat” Student Cultural Centre
“Cantata” Academic Choir of the Cracow University of Technology
“Bawinek” Student Dancing Club
“1 KANONICZA STREET” Art Gallery and Dependent Theatre
Cracow University of Technology Staff Club and the “Gil” Gallery
“Kottownia” Conference Hall and Exhibition Pavilion
“Stara Polana” Conference and Recreation Centre in Zakopane
Conference and Recreation Centre in Janowice
Association of Alumni of Cracow University of Technology
“Nasza Politechnika” Bulletin



STUDENTS' UNION UNIVERSITY COUNCIL

Students' Council members are elected by all students. They represent students before the university authorities, participate in governing the University via their representatives in collective bodies and organisation of students' living conditions.

Permanent commissions of the Union are:

- for social affairs, which deals with the distribution of places in student hostels, scholarships, grants and benefits,*
- for teaching affairs, which participates in all works connected with current teaching activities and changes of the teaching process at particular faculties.*

The union does not represent opinions or postulates of any political party or other student organisation.

STUDENTS' SPORTS ASSOCIATION

– UNIVERSITY CLUB

The Student's Sports Association has been actively operating at the Cracow University of Technology for more than fifty years now. The Association cooperates with the Sports and Recreation Centre. Nowadays there are 40 sports sections with 600 student sportsmen and sportswomen taking part in the College League competitions and in the National College Championships. For years the members of the Academic Sports Association have been leaders in the College League rankings and gold winners in the National College Championships.

Various sports events such as the Kościuszko Street Relay Race, the Strzelec Basketball Game, Sailing Regattas, and other championships give the students, professors and university staff a great opportunity to live active lives.



THE “NZS” INDEPENDENT STUDENTS’ ASSOCIATION

The “NZS” Independent Students’ Association is a socio-political student organisation which has developed its activities at the Cracow University of Technology for over twenty years now. “NZS” was established owing to the students’ protests in 1980-1981. The present “NZS” is the so-called third generation at our University. The Association was reactivated by the end of 1996. Its principle objectives are to awaken the awareness of the young generation, to form proper citizens’ and patriotic attitudes (for example by political meetings and disputes, demonstrations, pickets, various campaigns against, for instance, sects), to organise such activities as mountaineering rallies, bonfires, etc.

Since the end of 1997 the first issue of the students’ newsletter called “Lobby” has been published.

POLISH STUDENTS’ ASSOCIATION (“ZSP”)

This is an all-Polish Association uniting academic youth for the purpose of joint defence of rights and demands of the university milieu and developing students’ interests and personalities. This Association organizes camps and “Freshers” events for the 1st year students, also walks and rambles, as well as cultural performances. It is a legal entity, and so it offers employment seeking services and student accommodation facilities services.

“NOWINKI” STUDENT BROADCASTING CENTRE

Student broadcasting began at the university in 1951, but became established in 1959 when the “Nowinki” Student Broadcasting Studio was opened. The title derived from the name of the students’ hostel (the Bydgoska Street in Cracow) in which it was based (although it was commonly known as the “Radio behind the Wardrobe”). In 1976 a new hostel was opened and the broadcasts were transmitted via a new broadcasting studio at the Czyżyny settlement.

The move into another hostel provided the facilities to make and broadcast programmes. However, in 1979 the two stations were connected by Cable and, in 1980, it became known as the “NOWINKI” BROADCASTING CENTRE. Since 1988, the programmes have been broadcast from the Skarżyńskiego Street.

The radio station broadcasts news services, current and important University concerns and issues, along with information about cultural events and attractions of Cracow (theatre, cinema, music, student cabarets, other events).

“KWADRAT” STUDENT CULTURAL CENTRE

This student Cultural Centre at CUT was established in 1992, under the auspices of the University Board of the Academic Sporting Association, as well as CUT Hostels Council. During last 11 years, the “Kwadrat” Centre has developed very successful



activities and, thus, has become an important element of the CUT students' cultural life. Cultural events organised by "Kwadrat" include: discos, traditional CUT balls ("The Freshers' Ball", the "Andrew's Day Ball", the "New Year's Eve Ball"), election of "The Nicest CUT Student", cabaret and/or rock-group performances. The "Kwadrat" also offers TV programs, music, etc.; all events enjoy great popularity and attract great attention. The managers of the Centre are very pleased that usually the most interesting and engaging happenings and performances are those organised and run by students.

The major features of the events are: naturalness, typical "CUT students-like" aura, spontaneity and interesting, vibrant contents.

"CANTATA" ACADEMIC CHOIR OF THE CRACOW UNIVERSITY OF TECHNOLOGY

"Cantata" – Academic Choir of the Cracow University of Technology was established in 1990. Students (male and female) of all Cracow colleges and universities can be members of the Choir.

The Choir ensemble focuses its main interest on ancient religious and secular music, both Polish and European. With regard to the performance potential and, for the purpose of gaining new experiences, the Choir's repertoire is constantly improved and enriched by adding to it masterpieces originating from various historic epochs, including Polish folk music, carols, patriotic songs, and Church Slavonic music. "Cantata" Choir successfully took part in all-Polish Festivals and Reviews of Academic Choirs



that were held in such music centres as Wrocław, Gliwice, Warszawa, and our home City of Cracow. The Choir performed concerts in the Czech Republic, Germany, Finland, Austria, France, Latvia and Hungary, and enjoyed great acclaim.

"BAWINEK" STUDENT

DANCING CLUB

The "Bawinek" Student Dancing Club has been developing its activities for 50 years. The Club's dancing partners took part in all most important dancing events in Poland and abroad and were successful in various Competitions and Championships. For example, in November 1997, several major prizes were awarded to the pairs of this Club during the Cracow Region Championship. Now, there are 30 dancing pairs improving their skills in classes from D to S.

In November 2002 during The Polish Academic Championship the "Bawinek" was awarded the 7th place in Latin-American dances.

"1 KANONICZA STREET" ART

GALLERY AND "Zależny" (Dependent) Theatre

Art Gallery "1 Kanonicza Street" and The Zależny Theatre are housed in the cellars of a renovated 16th C building in 1, Kanonicza street. Since 1979 the Gallery has been an integral part of the Cracow University of Technology and its cultural ambassador. People who meet here are amateurs and professionals, artists and art lovers. The exhibitions are a kaleidoscope of painting, drawing, photography and sometimes sculpture by the staff, students and graduates of both CUT and other Cracow universities (Fine Arts Academy, Jagiellonian University, Academy of Pedagogy). Also graduates of arts schools all over Poland are invited, also foreigners, disabled persons united in the Foundation of Arts for the Disabled and the Polish Association of the Deaf.

The Dependent Theatre took under its roof non-institutional theatres. Professional actors performing in small theatrical troupes can realise their dreams impossible to realise in state run theatres. The Dependent Theatre is a symbiosis – the artists, the



stage and the audience are mutually dependent. The variety and richness of the repertoire attract various audience, including pre-school children, primary school pupils and secondary school students.

Theatre companies constantly cooperating with the Dependent Theatre include the Theatrical Association Dialog, Theatrical Society MISZUNG, the PROSCENIUM Theatre, the AKNE Theatre, the MIST Theatre.

A cycle of "Tournaments Read Your Own Poem" are regularly organised. Together with the Institute of English Philology, Jagiellonian University, and the Rotunda Club the Theatre participates in yearly celebrations of "Bloomsday" devoted to James Joyce.

CRACOW UNIVERSITY OF TECHNOLOGY STAFF CLUB AND THE "GIL" GALLERY

The Cracow University of Technology Staff Club was established in 1973 by the Rector of the University – Professor Władysław Muszyński. Together with the Club, a new "GIL" Art Gallery was founded as a part of it. The Gallery developed its activities in the Club's premises; its name "GIL" was invented by Mr. Stefan Papp. From the beginning the Gallery enjoyed great popularity, and its exhibitions attracted real attention.

Under the martial law in Poland in the early eighties, the Gallery suspended its activities, and started them again in October 1986. For twenty years, the Gallery was

housed in the building of the Faculty of Chemistry and, in 1993, it was moved to the first floor in the building housing the University canteen. During last 30 years, from 1973 until today many creators and artists have exhibited their works in the Gallery, among them people and organisations as famous as Krystyna Wróblewska, Janina Kraupe-Świdorska, Adam Hoffmann, Ludomir Śleńdziński, Stanisław Rodziński, Jan Świdorski, Wiktor Zin, "Wprost" Group (Jacek Waltoś, Zbysław Grzywacz, Leszek Sobocki, Maciej Bieniasz, Barbara Skąpska), Roman Skowron, Sławomir Lewczuk, Stefan Dousa, Ewa Gologórska-Kucia, Irena Popiołek, Leszek Dutka, Adam Brincken, Andrzej Kapusta, Grzegorz Bednarski, Tadeusz Boruta, Jarosław Kawiorski, Teresa Zabrzaska, Ewa Ławrusiewicz, Wojciech Ćwiertniewicz, Edward Dwurnik, Stanisław Kuskowski, Stanisław Tabisz, Jan Zych, Paweł Zechenter, Jadwiga Kaim-Otręba, Kazimierz J. Flaga and many, many others. Of course, the Gallery has invited and promoted many less known artists, thus creating an opportunity for them to introduce their works and to enter the artistic world, existing not only in Cracow. The gallery has 2 exposition rooms and hosts approx. 20 exhibitions yearly. In 2003 the "GIL" Gallery will be celebrating its 30th anniversary.



“KOTŁOWNIA” CONFERENCE HALL and EXHIBITION PAVILION



During World War I, when the Austrian army was stationed on the present campus of CUT, the building was a stable first and then a boiler plant. After a general renovation in 2001 the pavilion was transformed into a modern conference hall (with full audiovisual equipment) for about 200 people and a gallery where applied art exhibitions are held.

“STARA POLANA” CONFERENCE AND RECREATION CENTRE IN ZAKOPANE



Located in the centre of Zakopane, the historical building has a twenty-three bed hotel facilities and a conference hall for about 30 people. In the oldest part of the building there is an art gallery “Stara Polana” which holds exhibitions of works of art by CUT staff, students, artists from Zakopane and its suburb, and other artists involved in Handicapped Artists Foundation. Scientific conferences, “Save from Forgetting” -cyclic literary meetings as well as presentations of painting on glass are also organised there. The mountaineers band “Płazińce” made up of alumni and students of CUT performs during such events.

CONFERENCE and RECREATION CENTRE in JANOWICE



The centre is settled in a classicistic palace from the beginning of the 19th C. In 1870 the castle was rebuilt and then renewed in 1968-76. The palace is situated in a 24,7 acres park arranged in a romantic style.

In the palace there are two conference halls for about 100 persons and about 59 bed hotel facilities.

ASSOCIATION OF ALUMNI OF CRACOW UNIVERSITY OF TECHNOLOGY

The Association of Alumni was founded in 1958 on the ground of General Assembly resolution. The aim of the Association is to encourage former students to maintain links with the University, to keep up the traditions of the School and provide the opportunity to stay in touch with colleagues as well as to keep up and develop the principles of ethics of the profession. The Association assists its members in scientific and qualifications upgrading and exchange of experience; it takes care of the young people starting their professional career; it organises financial assistance to the members and their families.

The main aims of the Association are defined in the Statute and carried out by the Board by organising scientific sessions and meetings and publishing the proceedings; arranging conventions for graduates of particular years, constant co-operation with the School authorities; creating a fund for the assistance to the members and their families; organising branch affiliations in the country; allocating grants; publication of bulletins on the activities of the Association and School.

The members of the Association are holders of the Association badge. The Association awards honorary membership and a Golden Badge to persons of particular merit. To celebrate the 40th anniversary of the Association “A Roll of Honours”



was initiated. The inscription in the Roll is a special distinction conferred on persons who by their work and personal commitment have achieved outstanding success in their professional, organisational or political activities and thus promote the Cracow University of Technology both in Poland and in the world. The prerequisites are – studies at CUT, scientific degree or title and many years' links with our School as well as unimpeachable reputation.

Till now 137 alumni have been conferred such honorary distinction.

“NASZA POLITECHNIKA” BULLETIN

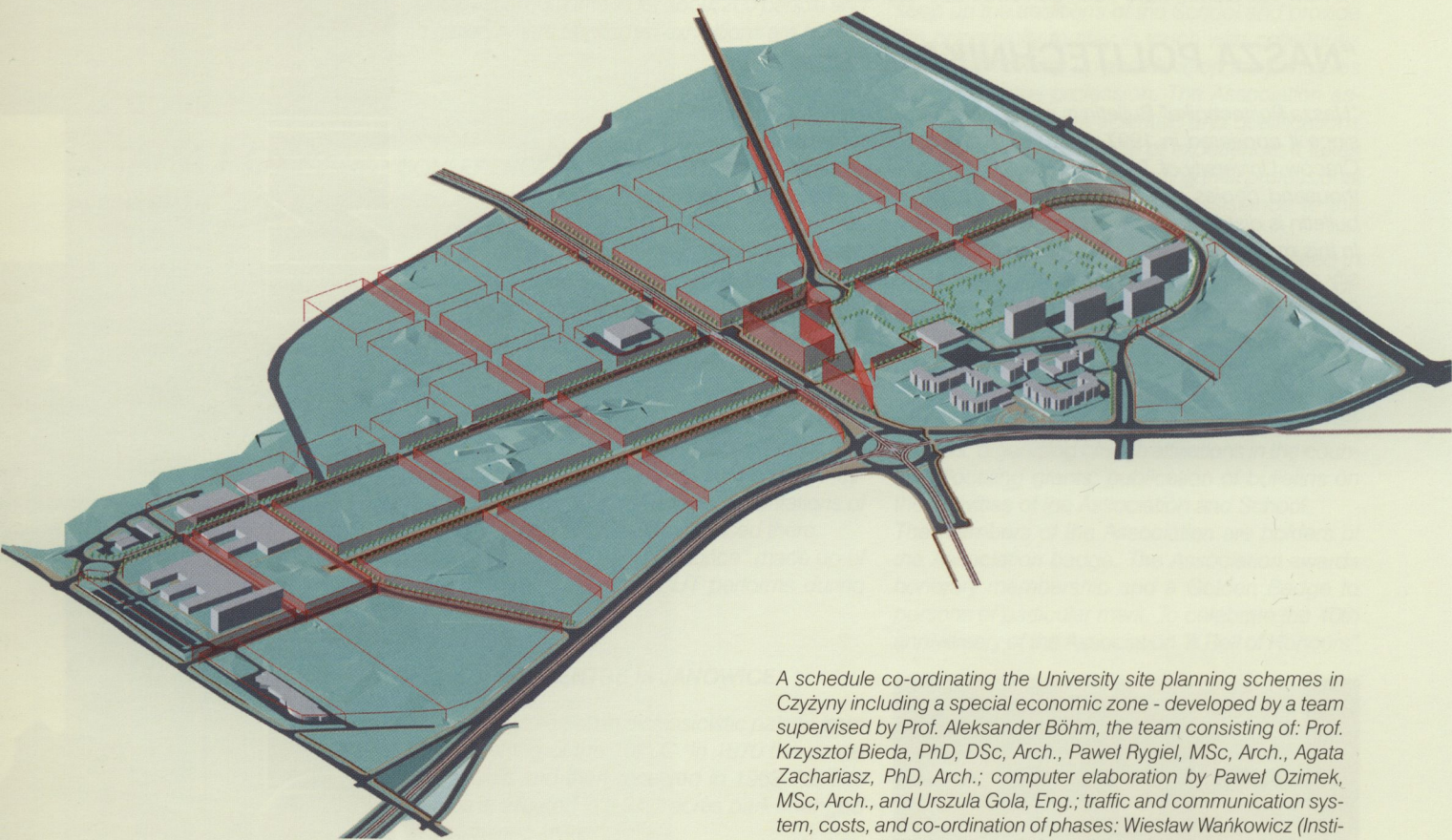
“Nasza Politechnika” Bulletin is a magazine issued every two months since it appeared in 1997. It is addressed to the community of the Cracow University of Technology, and each edition is printed in one thousand copies with about 36-pages each, richly illustrated. The bulletin is distributed free of charge.

In this magazine, there is information on current events at the University and news referring both to education and students' social and cultural affairs; it is considered a forum of exchanging opinions and discussions.

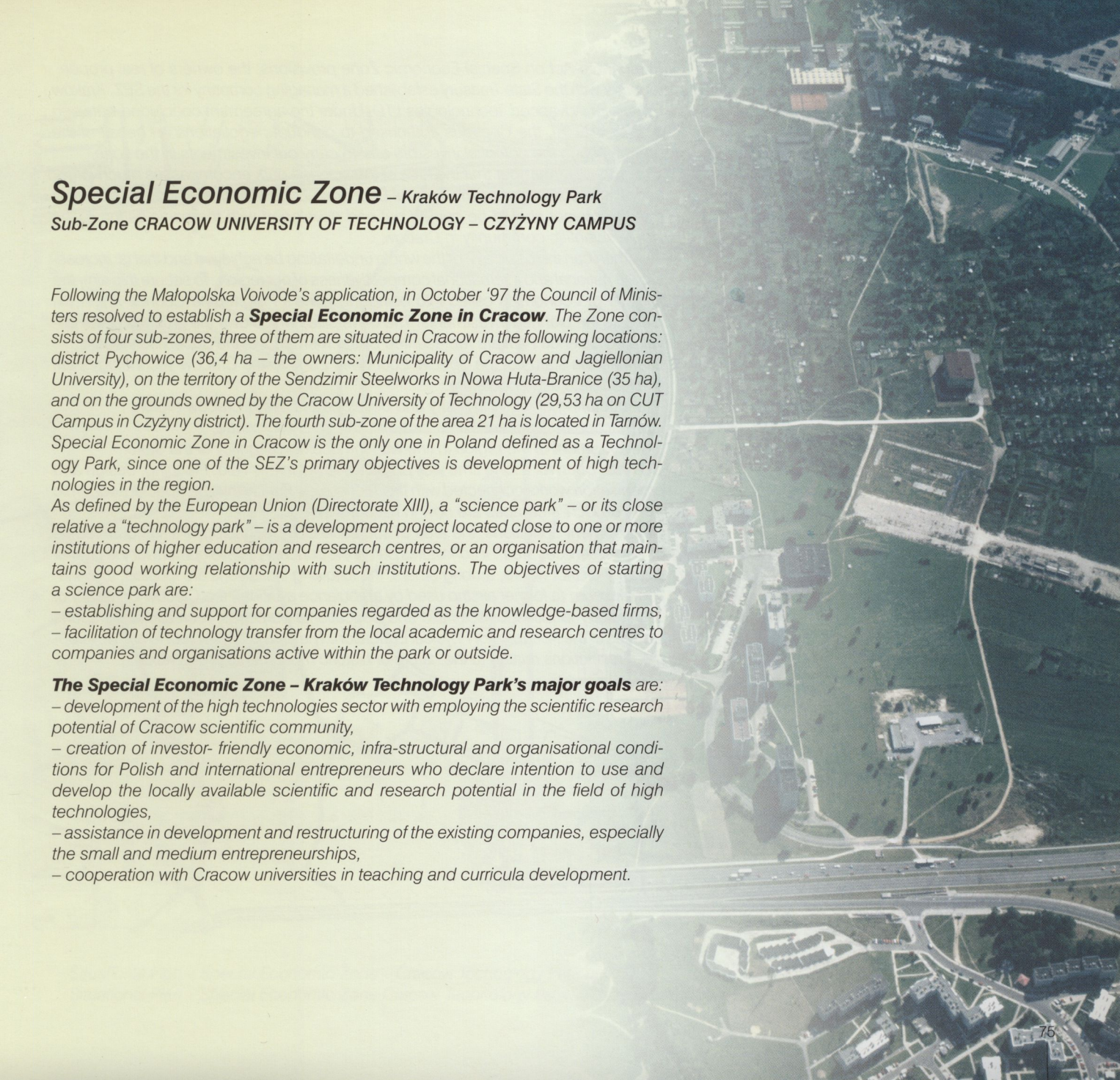


Special

Economic Zone Kraków



A schedule co-ordinating the University site planning schemes in Czyżyny including a special economic zone - developed by a team supervised by Prof. Aleksander Böhm, the team consisting of: Prof. Krzysztof Bieda, PhD, DSc, Arch., Paweł Rygiel, MSc, Arch., Agata Zachariasz, PhD, Arch.; computer elaboration by Paweł Ozimek, MSc, Arch., and Urszula Gola, Eng.; traffic and communication system, costs, and co-ordination of phases: Wiesław Wańkowicz (Institute of Physical Planning and Municipal Economy); infrastructure: Andrzej Trzos, MSc (Intersystem Project Group).



Special Economic Zone – Kraków Technology Park

Sub-Zone CRACOW UNIVERSITY OF TECHNOLOGY – CZYŻYNY CAMPUS

Following the Małopolska Voivode's application, in October '97 the Council of Ministers resolved to establish a **Special Economic Zone in Cracow**. The Zone consists of four sub-zones, three of them are situated in Cracow in the following locations: district Pychowice (36,4 ha – the owners: Municipality of Cracow and Jagiellonian University), on the territory of the Sendzimir Steelworks in Nowa Huta-Branice (35 ha), and on the grounds owned by the Cracow University of Technology (29,53 ha on CUT Campus in Czyżyny district). The fourth sub-zone of the area 21 ha is located in Tarnów. Special Economic Zone in Cracow is the only one in Poland defined as a Technology Park, since one of the SEZ's primary objectives is development of high technologies in the region.

As defined by the European Union (Directorate XIII), a "science park" – or its close relative a "technology park" – is a development project located close to one or more institutions of higher education and research centres, or an organisation that maintains good working relationship with such institutions. The objectives of starting a science park are:

- establishing and support for companies regarded as the knowledge-based firms,
- facilitation of technology transfer from the local academic and research centres to companies and organisations active within the park or outside.

The Special Economic Zone – Kraków Technology Park's major goals are:

- development of the high technologies sector with employing the scientific research potential of Cracow scientific community,
- creation of investor- friendly economic, infra-structural and organisational conditions for Polish and international entrepreneurs who declare intention to use and develop the locally available scientific and research potential in the field of high technologies,
- assistance in development and restructuring of the existing companies, especially the small and medium entrepreneurship,
- cooperation with Cracow universities in teaching and curricula development.

Pursuant to Act on Special Economic Zone provisions, the owners of real property together with the State Treasury established a managing company for the SEZ: Kraków Centre for Advanced Technologies LTD. Under the agreement concluded between CUT and KCAT, the Centre is authorised to conduct negotiations on behalf of the university with the potential investors and to carry out investments in the zone.

One should remember that the idea of the science park encompasses much larger scope and contents than the Special Economic Zone activities. What is important is that the project should be carried out and developed with the participation of the whole scientific community in Cracow.

Only then can the basic aim of the whole undertaking be achieved and that is: increasing the national and international competitiveness of our region. To secure this aim, the Minister of Economics called into being the Zone's Programme Council which will evaluate the planned investments. The universities which own the grounds of the developed Science Park are represented by the members of the Supervisory Board.

Granting the status of the Special Economic Zone to the Cracow Technology Park shall facilitate and accelerate:

- restructuring of heavy industry and development of the Cracow region;*
- promotion of Cracow as an academic and scientific centre;*
- development of the region in line with the ecological policy of the State.*

CUT has been for a long time well prepared to act in this field. Planning, design and organisation works connected with the Technology Park within the Special Economic Zone on CUT's campus are now in full progress.

Development conditions: the area of sub-zone CUT Technology Park is qualified as a "public services area". It constitutes part of the concept of development for the greater Czyżyny district where, among others, the following institutions are located: the Aviation Museum (a former airstrip used by ambulance aviation), the Cracow University of Technology facilities for scientific and educational purposes, recreation and sports facilities of the Academy of Physical Education. The area is not subject to any development restrictions related to the nature or historic monuments preservation.



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Situational Plan – Special Economic Zone – Cracow Technology Park of CUT
 Situational Plan – Special Economic Zone Cracow Technology Park – Czyżyny Campus

Situational plan of CUT.

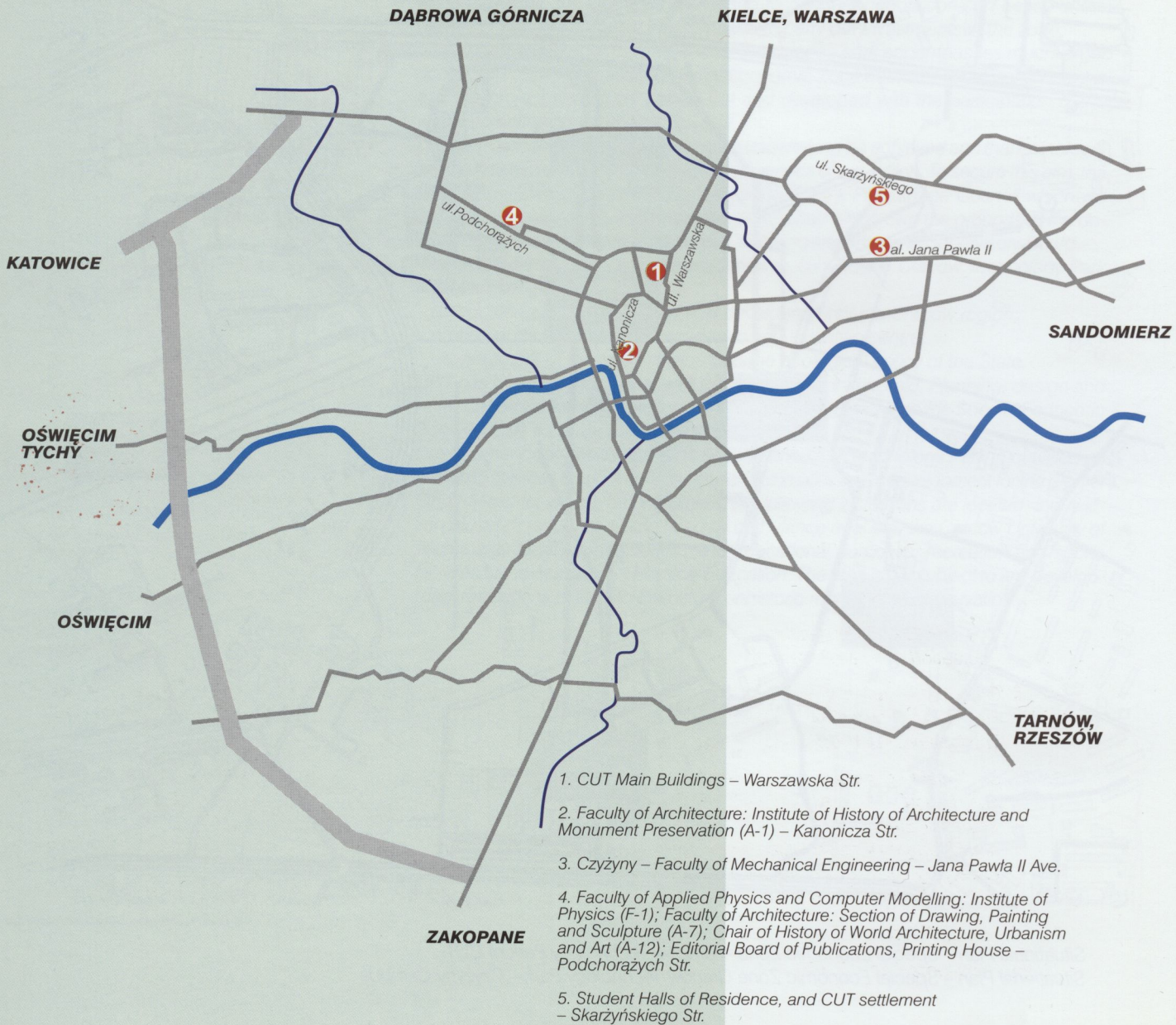


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