CRACOW UNIVERSITY OF TECHNOLOGY


PK

CRACOW UNIVERSITY OF TECHNOLOGY

THE ACADEMIC YEAR 1998/99

Tadeusz Kościuszko
CRACOW UNIVERSITY OF TECHNOLOGY

ACRONYM: PK
ADDRESS: Warszawska 24, PL 31-155 Kraków, Poland
tel: (+48 12) 633 03 00, 633 57 73
fax: (+48 12) 633 57 73
tlx: 0322468 pk pl
E-mail: r-0@admin.pk.edu.pl
http://www.pk.edu.pl

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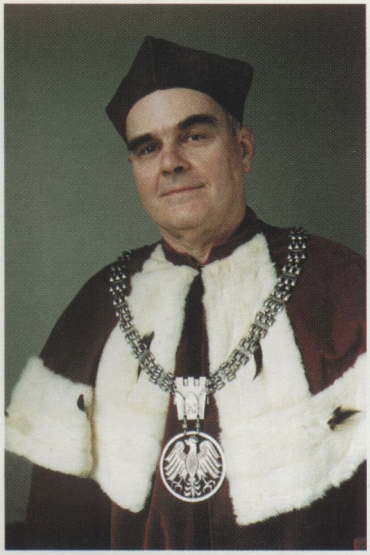
Rector
Professor Kazimierz Flaga, D.Sc., Ph.D.

Tradition and the present day

Shortly after the end of the Second World War, in 1945, a group of professors from the Lwów and Warsaw Universities of Technology together with a group of Cracow scientists and eminent, experienced engineers created the Polytechnic Faculties of the Academy of Mining and Metallurgy. These faculties were, however, fully legally and financially independent from the Academy. In 1954, they were renamed as the Cracow University of Technology. In 1975, the University was named after Tadeusz Kościuszko, civil engineer, and general and the national hero of Poland and United States. During the fifty three years over 37,000 students graduated from CUT, of these 23,000 received their M.Sc. degree and 13,000 B.Eng. degree. 1,200 people received their Ph.D. degree from CUT, and 300 people completed their second scientific degree (Doctor of Science degree) here. Many graduates from CUT can now be found holding important executive positions and representing highest professional standards in Cracow, and all over Poland and abroad.

At present CUT offers courses in its 6 faculties. The Faculties of Architecture, Civil Engineering, Environmental Engineering and Mechanical Engineering have full academic rights and, according to classification put forward by the Committee of Scientific Research, have the highest grade A. The other Faculties: Chemical Engineering and Technology, and Electrical and Computer Engineering have grade B. CUT belongs to the first category of Polish Universities with full autonomy. Presently it employs 1010 academic staff and 1190 other staff and has around 11,000 students enrolled on various courses.

Apart from maintaining a good position on the national and international scientific scene, Cracow University of Technology is particularly well visible in the life of its region. With others, CUT co-ordinated a multidisciplinary study on the sustainable development of the Cracow region prepared for the municipal authorities. The University has also actively engaged on an ambitious project of the Cracow scientific community aimed at the creation of the Cracow Technological Park.The status of the Special Economic Zone granted recently to the CTP enhances even more the chances of the whole undertaking to build a truly advanced research and high-technology centre for the region. Large parts of the park, which would attract the world most sophisticated high-tech firms, will be located on the grounds of CUT's campus. This of course will have a major impact on raising the quality of teaching in CUT, and attractive job prospects for its graduates.



Vice-Rector
Professor Marcin Chrzanowski, D.Sc., Ph.D.

Vice-Rector for Faculty Development and International Co-operation

The main duty of the Vice-Rector for Faculty Development and International Co-operation is to supervise and to assist the process of academic career building of the research and teaching staff in the University. The process includes preparation of Ph.D. dissertations both as a part of normal staff duties and within the framework of special Ph.D. studies, preparation of the 'habilitation' and, finally, the awarding of a professorship. Cracow University of Technology is an autonomous university which means, among others things, that at least 60 full professors (appointed by the President) have to be among its staff. For several years there have been around 70 of them, and those who retire are each year replaced by the newly appointed ones.

Another duty of the Vice-Rector is the supervision the process of awarding, by CUT of the 'honoris causa' doctoral degrees (10 eminent foreign and Polish professors are holding the honorary degree at present). In this matter the Vice-Rector is supported by the Senate Committee for Faculty Development.

As regards international co-operation, the Vice-Rector assists the individual visits of staff members to foreign universities. The visits are financed by the KBN – the State Committee for Scientific Research (each year about 120 CUT's staff members go abroad within this scheme). He also supports numerous conferences and seminars organised year by CUT (4 to 6 of them get an additional financial support from the KBN). Organisation of such events requires frequent foreign travel and also the hosting of guests from foreign universities. The Vice-Rector organises the foreign trips of the Rector and others of CUT's officers and is responsible for receiving official guests of the University. Particular attention is given to the bilateral contacts of CUT with foreign universities (among the most important partners of CUT there are: Technische Universitaet Berlin, Budapest Technical University and Technische Hochschule Muenster). There are actually 20 bilateral agreements of this type. The Senate Committee for International Co-operation prepares the University policy in this respect and gives opinions on the Vice-Rector's decisions in this matter.

The Vice-Rector for Faculty Development and International Co-operation serves also as the Dean for those Interfaculty units which carry out both research and teaching. These are: INSTITUTE of Economics, Sociology and Philosophy, INSTITUTE of Mathematics, INSTITUTE of Physics, and the University Computer Centre. These institutes serve all faculties of CUT and, moreover , starting in the academic year 98/99 they offer courses in the field of Technical Physics.

One of the important duties of the Vice-Rector for Faculty Development and International Co-operation is taking care of the development of computer facilities and networking in CUT carried out mainly by the University Computing Centre, following the recommendations of the Rector's Commission for Computing Facilities. It consists on one hand in looking for money to carry out the planned tasks (mainly building of the network) and, on the other hand, in supervising the proper spending of the available financial resources. Recent years brought significant improvement as regards parameters of data transmission and the access to supercomputers.

A special management system is used for accounting purposes and also for the organisation of teaching has been put into operation in CUT. It is implemented on a specially designed, fibre optic network that is independent from the general college network. A new, extended and improved structure of the CUT home page has also been designed and can be viewed at the address: http://www.pk.edu.pl http://www.pk.edu.pl. It is used for general information purposes but also for the exchange of internal documents within the University.

Vice-Rector for Research and Industry Co-operation

Vice-Rector
Assoc. Professor Elżbieta Nachlik, D.Sc., Ph.D.

Development of research, based to large extent on co-operation with industry and enterprises, results in the widening and improvement of teaching range and contents. The tasks performed by the Vice-Rector for Research and Industry Co-operation are as follows:

- *co-ordination of scientific research in the University and supervision of all individual and institutional contracts in this domain (including European financing sources, e.g. from the Copernicus Programme),*
- *signing and supervising of the research and developments projects, consulting services and agreements with companies,*
- *regular co-operation with the State Committee for Scientific Research and the Ministry of National Education concerning all activities of CUT aimed at finding financial support for development and conducting (equipment and research progress levels) of scientific research.*

The above list should be supplemented with recently intensified activities in the domain of modern technology transfer. As a result of these activities the following institutions were started in CUT:

- *Innovation Relay Centre (FEMIRC – Fellow Member of Innovation Relay Centres), one of 8 partner institutions of the Polish network. FEMIRC, is financed by the EU and performs its statutory tasks for scientific and industrial communities in the Małopolska and Silesia regions.*
- *Innovation Transfer Centre (OTI) this is an entity extending FEMIRC's activities towards marketing of research results. It is financed by the Foundation for Polish Science using Sci-Tech funds.*
- *International Foundation for World Class Manufacturing started as a follow-up of a TEMPUS programme devoted to the promotion of Total Quality Management (TQM). CUT is one of the founding members of the organisation.*
- *Technological Park in CUT's Czyżyny is campus as a part of the "Special Economic Zone – Kraków Technology Park".*

The above activities were started and are developed owing to the well established and long lasting co-operation of CUT with the industrial sector (almost 200 joint projects per year). This co-operation brings tangible effects for both sides. For CUT such effects can be measured by the degree of development of applied research, by successful technology transfers, number of granted patents, post graduate studies, and training organised for people from industry with particular stress on ISO standards. The Vice-Rector for Research and Industry Co-operation is supported by the Senate Commission for Economics, Budget and Finances.

Vice-Rector
Professor Ryszard H. Kozłowski, D.Sc., Ph.D.

Vice-Rector for Education and Student Affairs

Technical education in Kraków has a long tradition dating back to 1834, when a Technical INSTITUTE was started in this city. It can be also regarded as a continuation of the traditions of the Polytechnic School (later University of Technology) founded in the city of Lwów.

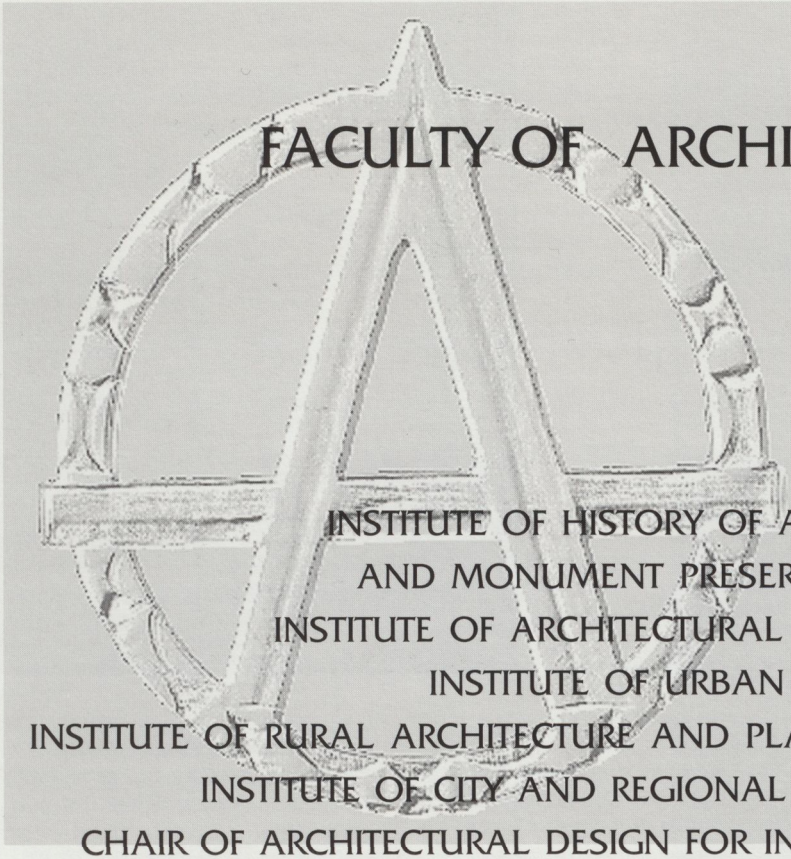
At present there are altogether 11,000 students (including 50 foreign students) studying in our University on regular, full-time, evening, and extra-mural courses offered by six faculties of CUT. Four of the faculties offer, in addition, Ph. D. courses, where the number of potential candidates depends on the actual interest in this form of improving qualifications.

The full co-ordination of the teaching process with particular attention given to the enrolment principles, admission requirements and graduation rules is one of the main duties of the Vice-Rector for Education and Student Affairs. The Vice-Rector has the support of the Senate Commission for Education in preparing new curricula, changes to and updating of the existing curricula.

As regards teaching, our University has been in long collaborating with foreign universities. Exchange of students is carried out within the framework of theTempus and Erasmus programmes, as well as under bilateral agreements with European and American universities. During such exchange students can take part in practical training, and carry out work on individual projects, as well as prepare theses.

The Vice-Rector for Education and Student Affairs is also responsible for independent teaching units such as the Foreign Languages Centre, Physical Education Centre, Centre Pedagogy and Psychology and Urban Education Centre for Developing Countries. Having in mind the future of its graduates, CUT managed to secure funding (including EU sources) for the organisation of the Careers Office in collaboration with the Employment Office of the Municipal Council. The tasks of the Careers Office include preparation of graduates to search for attractive jobs in the conditions of the market economy, and creation of data banks of graduates and of companies that are potential employers of the graduates in the Małopolska region.

Another important duty of the Vice-Rector is close collaboration with youth organisations active in the University, elaboration of principles and running of the grants scheme for students. The grants include housing in a student hostel, meals in student canteens, and financial grants for students as well as financial awards for good study results. One should also mention here that most of the student cultural, sporting and exchange events are organised under the auspices of the Vice-Rector for Education and Student Affairs.



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)
CHAIR 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)
CHAIR OF REGIONAL ARCHITECTURE DESIGN (A-10)
CHAIR OF THEORY OF LANDSCAPE ARCHITECTURE
AND GARDEN COMPOSITION (A-11)

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 633 54 53, 633 03 00 ext. 24 01
fax: (+48 12) 633 54 53
E-mail: a-0@admin.pk.edu.pl

faculty ADMINISTRATIVE OFFICERS

Dean: *Prof. Andrzej KADŁUCZKA, D.Sc., Ph.D.Arch.*

Vice-Deans:
Assoc. Prof. Anna MITKOWSKA, D.Sc., Ph.D.Arch.
Assoc. Prof. Zbigniew RADZIEWANOWSKI, D.Sc., Ph.D.Arch.
Assist. Prof. Jacek GYURKOVICH, Ph.D.Arch.

Degree courses and specialisations:
Faculty of Architecture programmes encompass a broad range of disciplines within the field of architecture and city planning: the history of world and Polish architecture, urbanism, and art, historic preservation and monument revitalisation design; architecture of residential and public buildings, regional architecture, architecture for industry, building structures and urban design for housing, facility centres and city centre areas, urban renewal; physical and regional planning, environmental protection, town planning and city design; landscape architecture; architecture and planning in rural areas; building systems and materials.

Main research fields:
Design for housing - looking for new models and experimental housing units; ecological problems in urban design in central residential districts; urban reneval and development; landscape architecture with restoration of historic parks and gardens.

Faculty and research staff:
194 employees, including 15 professors, one member of the Polish Academy of Sciences, and of the Polish Academy of Sciences and Letters, 18 associate professors, 93 assistant professors.

Number of students:
1 600, first year enrollment approximately 306.

INSTITUTE OF HISTORY OF ARCHITECTURE AND MONUMENT PRESERVATION (A-1)

Research fields: *history of Polish architecture and historic preservation; history of world architecture, urbanism and art; history of the 19th and 20th c. architecture; modernisation and reconstruction of historic monument structures, history of preservation; research on theory, methodology and practice in historic preservation; studies on conversion of historic*

complexes and structures (methods and technology of preservation in Cracow and the Małopolska region).
Head of the INSTITUTE's Division of the 19th. and 20th C. Architecture Renewal, Professor Andrzej Kadłuczka, last year initiated the idea of the International Conference on Conservation Kraków 2000, conceived as an interdisciplinary forum of debate and formulation of current views, principles and requirements of preservation of the cultural heritage in the light of the present state of the science. The Conference is organised by the Faculty of Architecture of the Technical University in Kraków and the INSTITUTE of History of Architecture and Monument Preservation with participation of several European institutions and academic organisations.

The Institute is composed of:
Division of History of Architecture and Monument Preservation (A-11)
Division of History of World Architecture, Urbanism and Art (A-12)
Division of History and 19th-20th C. Architecture Renewal (A-13)

INSTITUTE OF ARCHITECTURAL DESIGN (A-2)

Research fields: *programming and designing of house bilding and complexes (new and modernised): public buildings (culture and art, administration, education, retail and facilities, recreation, sport, tourism and leisure; studies of the construction industry, design methodology, designing of finishing; technical methods of preservation and modernisation with emphasis on monumental structures.*

The Institute is composed of:
Chair of Housing (A-21)
Chair of Public Buildings Design (A-22)
Section of Buildig Structures (A-24)

INSTITUTE OF URBAN DESIGN (A-3)

Research fields: *urban and architectural design of single, and multi-family residential complexes; intense forms of housing systems; ecological problems in housing environment design; theory and practical problems of urban renewal and development; theory and design of educational complexes; design of facility centres and city centre areas.*

The Institute is composed of:
Section of Urban Composition (A-31)
Section of Residential Environment (A-32)
Section of Urban Renewal and Development (A-33)
Unit of Urban Analysis (A-34)

INSTITUTE OF RURAL ARCHITECTURE AND PLANNING (A-4)

Research fields: *development of construction and settlements 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; studies on traditional wooden construction, materials and building systems in contemporary construction; monumental building systems - wooden and masonery.*

The Institute is composed of:
Chair of Rural Architecture and Planning (A-41)
Section of Building Systems and Materials (A-42)

INSTITUTE OF CITY AND REGIONAL DESIGN (A-5)

Research fields: *problems of composition in towns and urbanised areas; spatial aspects of city and regional design; programmatical, functional and compositional problems in design of city areas and facility centres; planning of resort areas; ecological problems of towns and urbanised areas.*

The Institute is composed of:
Section of City Design (A-51)
Section of Physical Planning and Environment Protection (A-52)
Section of Regional Planning (A-53)

CHAIR OF ARCHITECTURAL DESIGN FOR INDUSTRY (A-6)

Research fields: *architectural design including: industrial building design, office building and health care facility design, transportation service design; theory of architecture; ergonomics; psychology of architecture.*

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

Teaching areas: *architectural drawing, painting, fine arts in architecture, individual activities in art, sculpture.*

Research fields: *experimental techniques in painting, 'spatial' painting, history and design of traditional and contemporary stained glass, theory of free hand drawing.*

INSTITUTE OF LANDSCAPE ARCHITECTURE (A-8)

Research fields: *natural landscape, art of gardening, urban landscape.*

The Institute is composed of:
Section of Natural Landscape and Engineering Structures (A-81)
Section of Urban Landscape (A-82)
Section of Parks and Gardens (A-83)

SECTION OF DESCRIPTIVE GEOMETRY AND ENGINEERING GRAPHICS (A-9)

Research fields: *descriptive and projective geometry (cones theory, 3D-2D projections, perspective projection), geometric design in engineering practice (civil engineering, architecture, transportation - road-view research, dynamic space simulation), visualisation, 3D perception, CAD and computer graphics, Cal for descriptive geometry problems.*

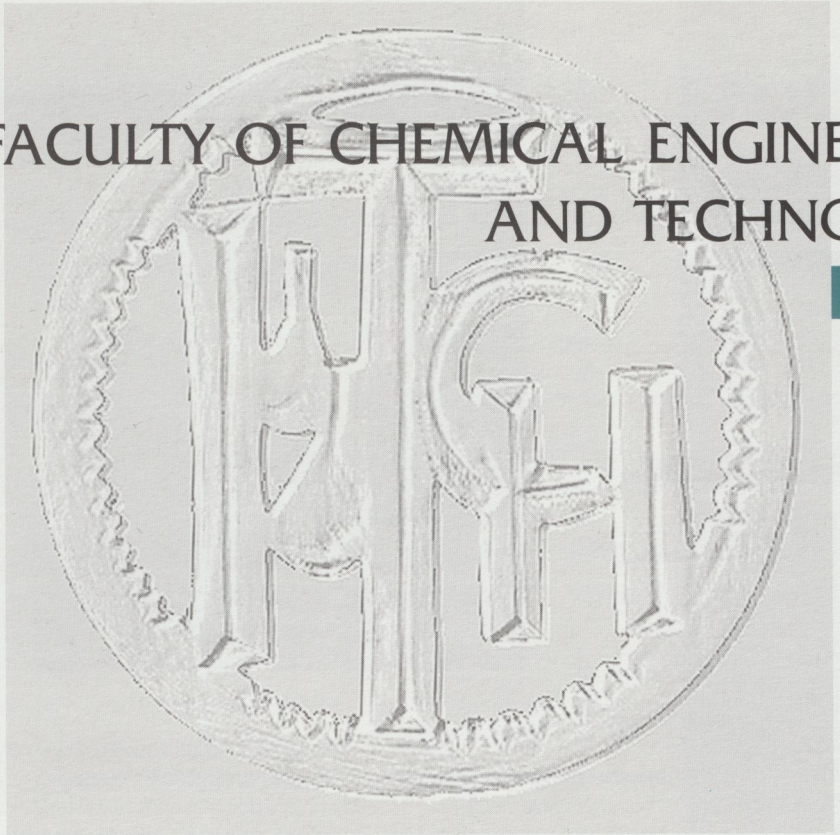
CHAIR OF REGIONAL ARCHITECTURE DESIGN (A-10)

Research fields: *architecture and town planning in building for public use with special reference to sport and recreation; regionalism in contemporary architecture.*

CHAIR OF THEORY OF LANDSCAPE ARCHITECTURE AND GARDEN COMPOSITION (A-11)

Research fields: *didactic and formation works: lectures, design exercises, seminars for students of first and third year in the scope of primary designing, theory of designing and landscape architecture; studies and designs in the scope of: garden composition, restoration of historic military architecture, as well as landscape – architectonic studies; large--scale activity on publications, scientific elaborations, expositions and seminars.*

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)

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 633 95 64, 633 03 00 ext. 27 01, 27 02
fax: (+48 12) 633 95 64
E-mail: c-0@admin.pk.edu.pl

faculty ADMINISTRATIVE OFFICERS

Dean: *Prof. Regina KIJKOWSKA, D.Sc., Ph.D.*

Vice-Deans:
Prof. Bolesław TABIŚ, D.Sc., Ph.D.
Assoc. Prof. Jan OGONOWSKI, D.Sc., Ph.D.

Degree courses and specialisations:
The teaching covers two basic fields: ***chemical technology*** *with specialisations: inorganic and organic chemical technology, polymer technology and petrochemistry, computer chemistry, chemistry and technology of environment, and* ***chemical engineering*** *with specialisations: chemical and process engineering, chemical and bio-process reactor engineering, bio-engineering, analysis and development of industrial processes.*

Main research fields:
Technologies associated with rare earth elements, the recovery of metallic elements from industrial wastes, utilisation of phosphogypsum, sulfidisation of alloys in H2/H2 S atmospheres; the determination of trace concentrations of highly toxic pollutants such as 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.*
- *Mass production industrial technologies leading to receiving of 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 lubricant. Refining process optimisation.*
- *Degasification of coal. Studies of liquid coal derivatives.*

Theory and engineering of chemical and bio-chemical reactors, mass and heat transfer processes, multiphase systems hydro-dynamics, heterogeneous catalysis flue and effluent gas desulphurisation.

Faculty and research staff:
71 employees, including 13 professors, 6 associate professors, 54 assistant professors.

Number of students:
Total number of students: 300, first year enrollment: 100.

INSTITUTE OF INORGANIC CHEMISTRY AND TECHNOLOGY (C-1)

Research fields: *inorganic technology and in particular: the chemistry of rare earth elements and technological 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 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)

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, transformations of alkylaromatic compounds, methatesis of olefins, synthesis of oxygenates for reformulated gasoline, thermal modyfication 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)

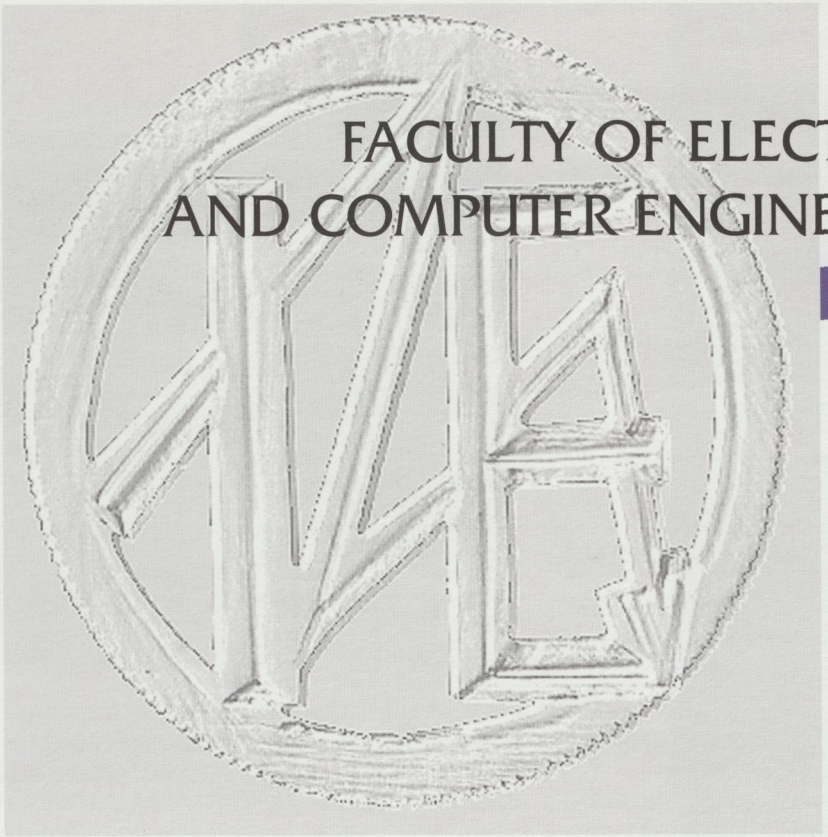
INSTITUTE OF CHEMICAL ENGINEERING AND PHYSICAL CHEMISTRY (C-3)

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 photo-electron transfer.*

The Institute of composed of:
Section of Chemical and Process Engineering (C-31)
Section of Physical Chemistry (C-32)

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

Research fields: *polymer chemistry and technology, especially modification of polyvinyl carbazoles, flexible polyurethane foams, copolymerisation 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 (pyrolisis, gasification).*



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)

CHAIR OF COMPUTER ENGINEERING (E-5)

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 633 66 92, 633 03 00 ext. 26 01, 26 02
fax: (+48 12) 633 66 92
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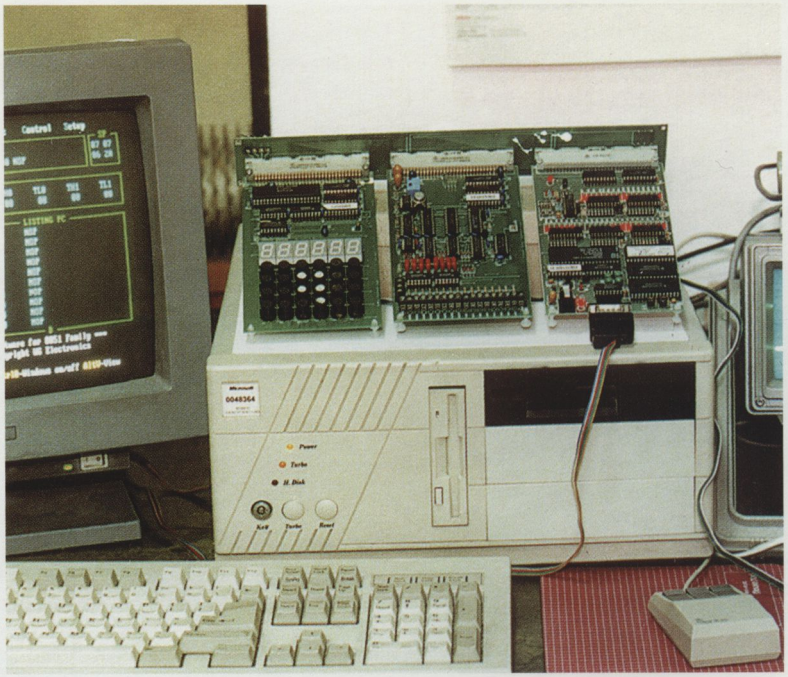


faculty
ADMINISTRATIVE OFFICERS

Dean: *Prof. Tadeusz J. SOBCZYK, D.Sc., Ph.D.*

Vice-Deans:
Assoc. Prof. Jerzy MIKULIK, D.Sc., Ph.D.
Assist. Prof. Sławomir KORDOWIAK, Ph.D.

Degree courses and specialisations: *The Faculty of Electrical and Computer Engineering offers:*

- *full - time degree course leading to the degree of M.Sc. in Electrical Engineering with specialisations:*
  - *engineering of electrical systems,*
  - *automatics,*
  - *electrical engineering in railways,*
  - *computer engineering.*
- *part - time course leading to the of B.Sc. in Electrical Engineering with specialisations:*
  - *automatics,*
  - *electrical engineering in railways,*
  - *electronic control systems.*

Specialisation in the engineering of electrical systems is geared towards the following problems: power electronics and drives, engineering of electro-mechanical systems, quality and reliability of electrical energy and electrical measurement systems.
Specialisation in automatics concerns the following problems: automatic control of industrial processes, engineering of computer systems, electro-mechanical instrumentation.
Specialisation in electrical engineering in railways is dedicated to the following: power railways systems, traction drives, railway traffic control, electronic and telecommunications equipment for railway, municipal traction.
Specialisation in computer engineering covers the following: computer architecture and digital systems' design, software engineering, computer systems.
Specialisation in electronic control systems concerns the design, modelling and application of electronic circuits and units in automatics and control systems for electrical drives.

Main research fields:
In the scope of electrical engineering: circuit theory, electrical machines and drives, electro-mechanical systems, theory of dynamic errors, and 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, and digital systems testing and diagnostics.

Faculty and research staff:
90 employees, including 4 professors, 7 associate professors and 29 assistant professors.
Total number of students:
Total number of students: 810, first year enrollment –193. Number of students enrolled in the full time M.Sc. courses – 580. Number of students enrolled in the evening part – time courses – 230.

INSTITUTE OF ELECTRICAL METROLOGY (E-1)

Research fields: *computer aided multi-parameter measuring systems for measurements of non electrical dynamic quantities, mathematical models and calibration of measuring systems, inverse scatter theory, aggregation and decomposition.*

The Institute is composed of:
Division of Electrical Measurement (E-11)
Division of Impedance Tomography (E-12)

INSTITUTE OF ELECTROMECHANICAL ENERGY CONVERSION (E-2)

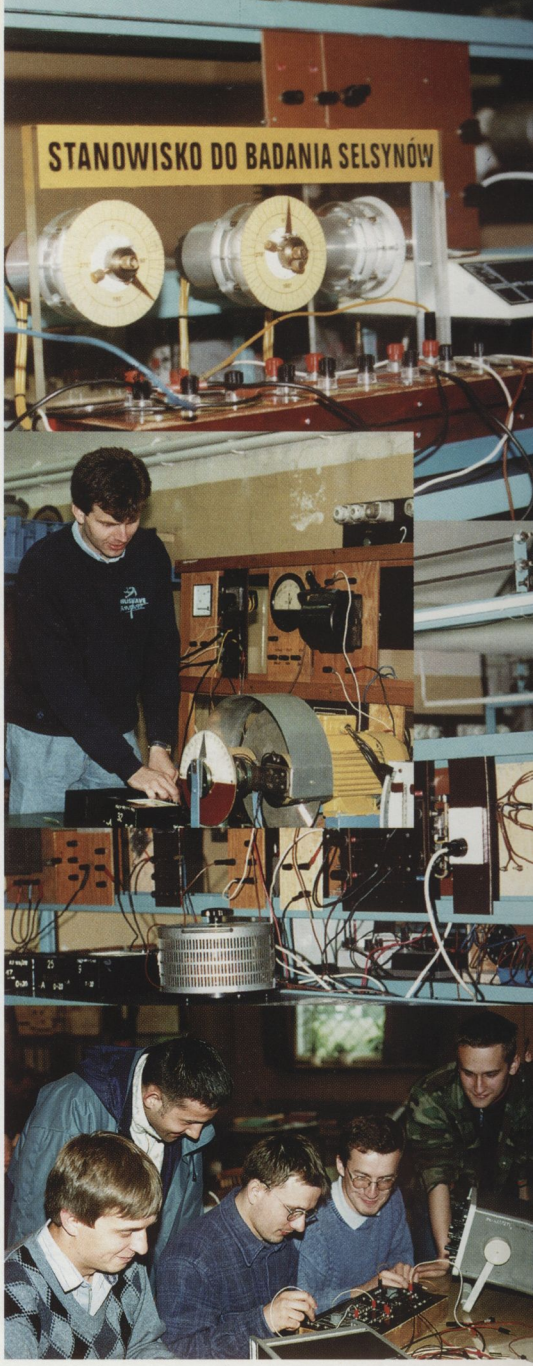
Research fields: *electro-mechanical energy conversion, electrical machines, electro-mechanical systems, power electronic drives, power electronic in traction, tractions power apparatus and systems, electro-magnetic compatibility in electric traction, railway traffic control systems.*

The Institute is composed of:
Chair of Electrical Machines (E-21)
Division of Power Electric Traction (E-22)
Unit of Power Electronics and Electrical Drives Automation (E-23)

INSTITUTE OF CONTROL ENGINEERING (E-3)

Research fields: *time-optimal control with non-linear and discontinuous objects, optimal control of objects with random perturbations, architecture of micro-controllers, design of control systems and their modelling, reliability and dependability analysis of control systems, neural network theory applied in control engineering.*

The Institute is composed of:
Chair of Control Theory (E-32)
Unit of Computer System Architecture (E-33)
Division of System Quality and Reliability (E-34)



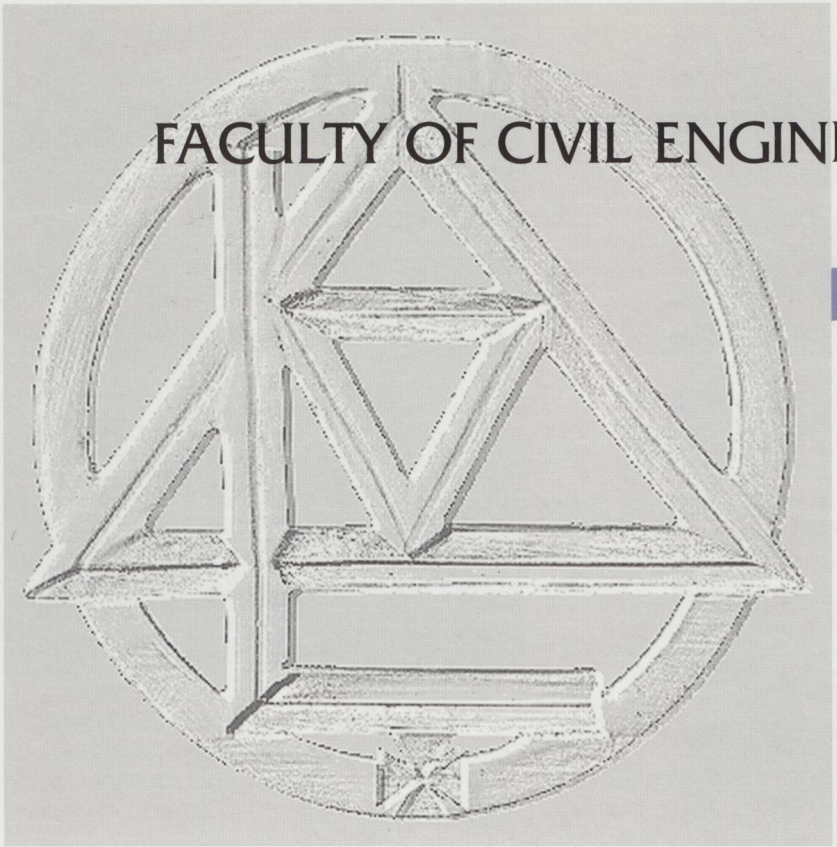
INSTITUTE OF INDUSTRIAL ELECTROTECHNICS AND ELECTRONICS (E-4)

Research fields: *optimisation and synthesis of digital filters and electrical networks. Signals theory-analysis and synthesis. Analogue and digital electronic networks and microprocessor systems. Systems and elements of opto-electronics thin film. Quality of electrical energy.*

The Institute is composed of:
Division of Electronics (E-41)
Division of Circuit Theory and Signal Processing (E-42)
Unit of Power Apparatus and Systems (E-43)

CHAIR OF COMPUTER ENGINEERING (E-5)

Research fields: *rapid system prototyping, fault tolerant computing, and database architectures.*



FACULTY OF CIVIL ENGINEERING

INSTITUTE OF BUILDING MATERIALS AND STRUCTURES (L-1)
INSTITUTE OF ROAD AND RAILWAY ENGINEERING (L-2)
INSTITUTE OF BUILDING TECHNOLOGY AND ORGANISATION (L-3)
INSTITUTE OF STRUCTURAL MECHANICS (L-4)
INSTITUTE OF COMPUTER METHODS IN CIVIL ENGINEERING (L-5)
SECTION OF COMPUTATIONAL MECHANICS (L-6)
SECTION OF TRANSPORT ORGANISATION (L-7)

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 633 57 70, 633 03 00 ext. 23 01, 23 02
fax: (+48 12) 633 57 70
E-mail: l-0@admin.pk.edu.pl

faculty ADMINISTRATIVE OFFICERS

Dean: *Assoc. Prof. Kazimierz FURTAK, D.Sc., Ph.D.*

Vice-Deans:
Assoc. Prof. Janusz BIERNACKI, D.Sc., Ph.D.
Assoc. Prof. Włodzimierz CZYCZUŁA, D.Sc., Ph.D.
Assoc. Prof. Jacek ŚLIWIŃSKI, D.Sc. Ph.D.

Degree course and specialisations:
The teaching covers the following branches of civil engineering: building structures; building technology and organisations, streets, roads and highways; railway lines; computational mechanics; theory of structural mechanics; building management; and engineering of transport systems and management.
Ph.D. courses: structural mechanics, building materials and structures, railway and road construction, and building technology and management. Post-graduate courses: building materials and structures, traffic engineering, upgrading in the reconstruction and maintenance of buildings. Evening studies: building structures, building technology and organisation, building management, roads and streets, and transport systems.

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 prestressed structures; steel structures; bridges; industrial structures; building materials technology, building physics; traffic engineering; and building technology and management.

Faculty and research staff:
266 employees, including 14 full professors (two members of the Polish Academy of Sciences, three members of Polish Academy of Sciences and Letters), 5 associate professors, 14 assistant professors.
Number of students:
2810, first year enrollment: 1236

INSTITUTE OF BUILDING MATERIALS AND STRUCTURES (L-1)

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 building design; and 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)
Chair of Reliability and Design of Metal Structures (L-13)
Section of Pre-stressed Structures (L-14)
Chair of Reinforced Concrete Structures (L-15)
Section of Bridges and Tunnels (L-16)
Chair of Steel Structures and Welding (L-17)
Section of Civil and Industrial Structures (L-18)

INSTITUTE OF ROAD AND RAILWAY ENGINEERING (L-2)

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

The Institute is composed of:
Chair of Road and Traffic Engineering (L-21)
Section of Railway Track Engineering (L-22)
Section of Transport Systems (L-23)

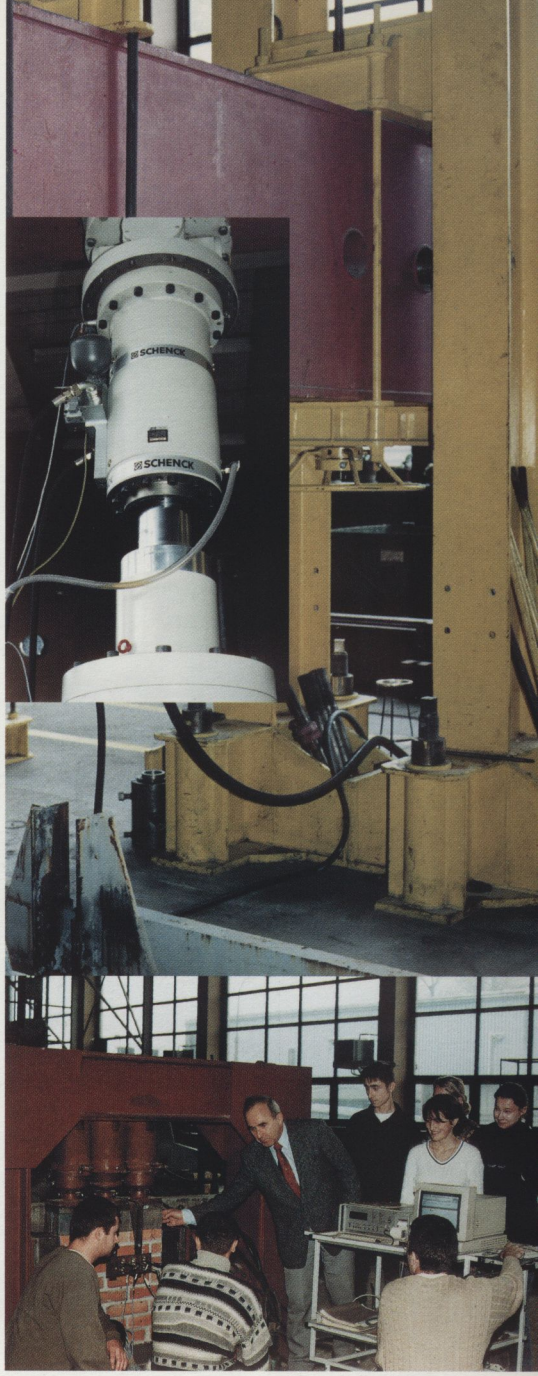
INSTITUTE OF BUILDING TECHNOLOGY AND ORGANISATION (L-3)

Research fields: *systems of new building technologies; project planning; building economics and organisation; construction management; cost estimation and control; ergonomics; mechanisation of building works; and technology and organisation of repair and modernisation works.*

The Institute is composed of:
Section of Building Organisation and Economics (L-31)
Chair of Building Technology (L-32)
Section of Building Management (L-33)

INSTITUTE OF STRUCTURAL MECHANICS (L-4)

Research fields: *solid mechanics; mechanics of porous media; structures in creep conditions; damage mechanics; structure sensitivity and optimisation; design of tall structures and machine foundations; structural identification and dynamic*



diagnostics; seismic and para-seismic effects on structures; theory of structural stability; numerical analysis of structures; FEM in the analysis of structures.

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)

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

Research fields: *computational methods in structural mechanics and theory of structures, finite element methods; numerical methods, analysis of nonlinear 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 artifical neural networks to the analysis and optimum design of the theory of structures.*

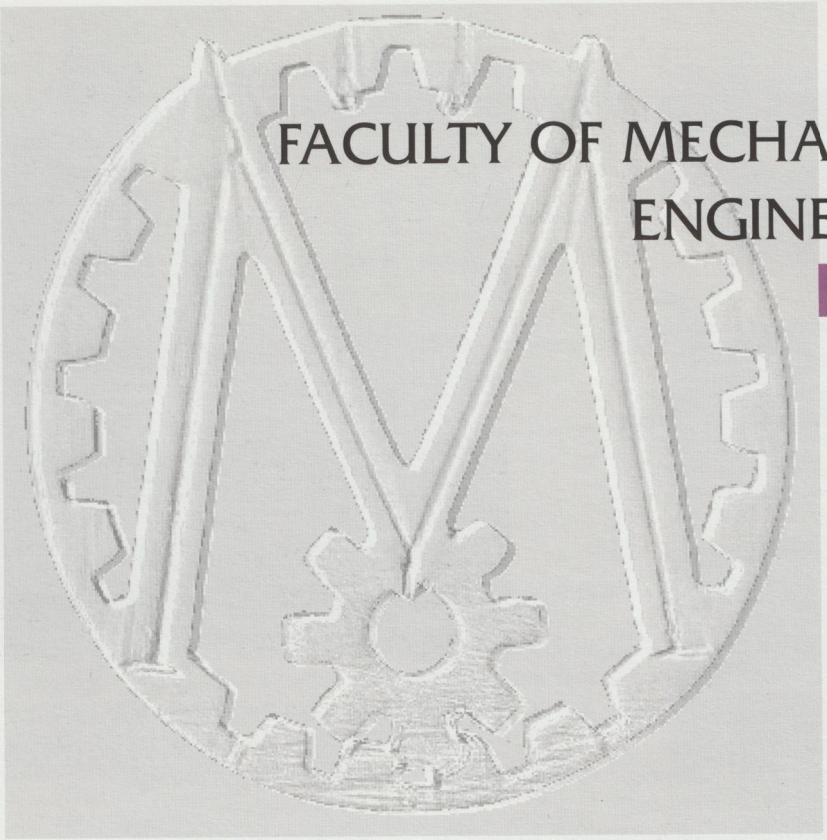
The Institute is composed of:
Chair of Computational Mechanics of Structures (L-51)
Division of Computational Methods (L-52)

SECTION OF COMPUTATIONAL MECHANICS (L-6)

Research fields: *research is carried out on the development of computer methods of analysis and synthesis of structures, as well as on various boundary value problems in mechanics. Special attention is paid to research in the following directions: methods of physically based approximation of experimental data; the generalised finite difference method at arbitrary, irregular grids and combined FEM/FDM system of analysis; methods of residual stress and strain analysis with especial reference to railroad rails and vehicle wheels; and methods of analysis of pneumatic membranes and cables.*

SECTION OF TRANSPORT ORGANISATION (L-7)

Research fields: *traffic control and optimisation, application of operations research in transportation problems, transport technology; transportation modelling; application of computer sciences in transportation; and transport marketing, public transport control and management.*
The above activities refer to the road and rail transport modes as well as to works transport.



FACULTY OF MECHANICAL ENGINEERING

INSTITUTE OF MECHANICS AND MACHINE DESIGN (M-1)

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

INSTITUTE OF HEAVY DUTY MACHINES (M-3)

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

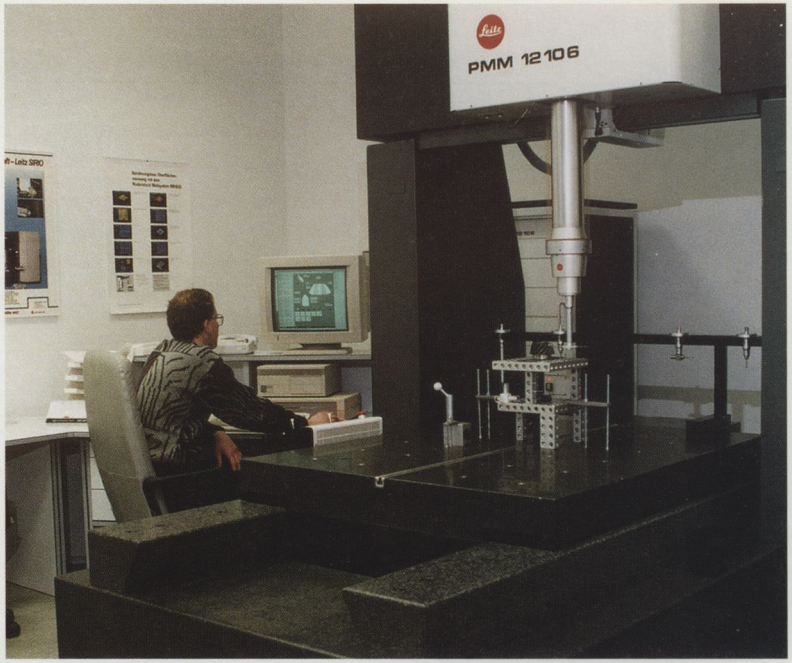
INSTITUTE OF INDUSTRIAL APPARATUS AND POWER ENGINEERING (M-5)

INSTITUTE OF PRODUCTION ENGINEERING (M-6)

SECTION OF COMPUTER SCIENCE APPLICATION (M-7)

INSTITUTE OF RAILWAY VEHICLES (M-8)

Address:
Jana Pawła II 37, PL 31-864 Kraków
tel: (+48 12) 648 14 32, 648 05 55 ext. 36 01
fax: (+48 12) 648 14 32
E-mail: m-0@admin.pk.edu.pl



faculty
ADMINISTRATIVE OFFICERS

Dean: *Prof. Jerzy CYKLIS, D.Sc., Ph.D.*

Vice-Deans:
Assoc. Prof. Krzysztof SZUWALSKI, D.Sc., Ph.D.
Assoc. Prof. Jan KAZIOR, D.Sc., Ph.D.
Assoc. Prof. Stanisław MICHAŁOWSKI, D.Sc. Ph.D.

Degree courses and specialisations:
Types of courses offered at present: M. Sc. regular courses, evening (engineering and M. Sc.) postgraduate, Ph.D. courses. Within five major fields of education following specialisations are run:

Mechanics and mechanical engineering
- *medical engineering*
- *computational mechanics*
- *modelling and monitoring of machines*
- *automobiles and tractors*
- *automotive vehicle performance*
- *internal combustion engine*
- *power engineering systems and equipment*
- *refrigeration and air conditioning systems*
- *advanced technologies in mechanical engineering*
- *computer application in mechanical engineering*
- *railway vehicles*

Automatic control engineering and robotics
- *multimedia in industrial systems*
- *automation of production processes*

Material engineering
- *construction materials*
- *management of quality*

Management and marketing
- *management and reconstruction of plant*
- *management and marketing in transport*

Transport
- *systems and transport equipment*
- *operating of rail vehicle transport means*

Main research fields:
Inelastic bodies and structures; structural optimisation; gear dynamics: power mechanical systems; vibro-insulation systems; biomechanic plastics and composites; non-metalic inclusion in steel; properties of metalic materials; sintered and cast materials; powder metallurgy technology; pulsatory pressing; weldability assesment, CAD of experiments; design, analysis and testing of cranes, earthmoving and mechanical handling machines; design and testing of mechani-

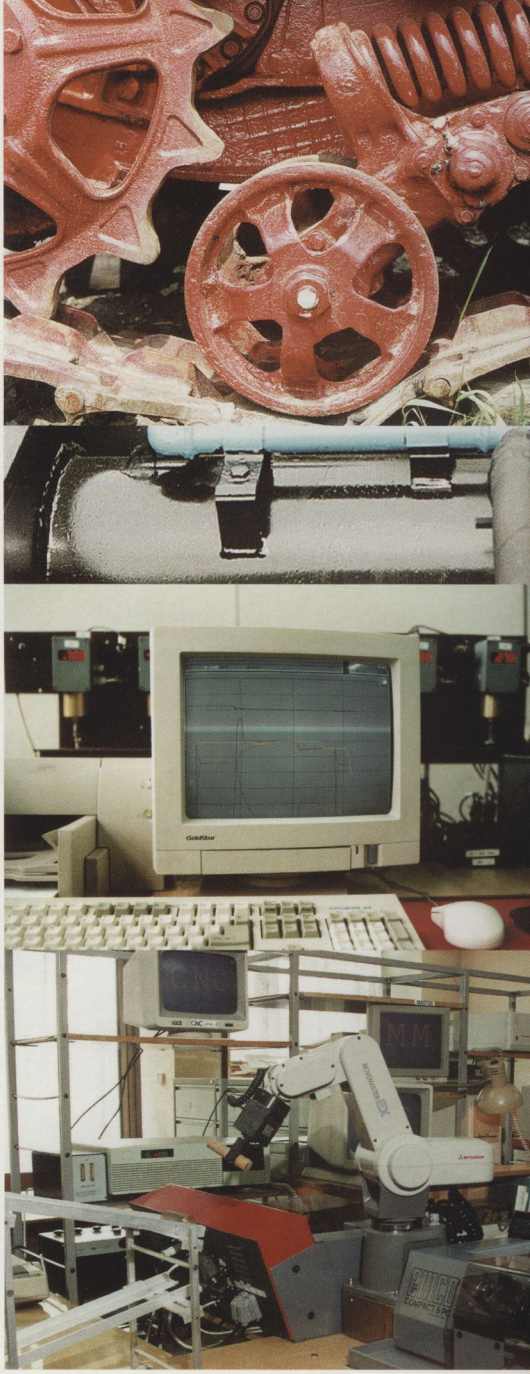
cal and hydraulic systems; design and investigation of vehicle chassis assemblies and I.C.engines; effects of in-service conditions on vehicle life and reliability; fuel and energy economy in transportation; application of substitute fuels; chemical and food industry apparatus; refrigeration and air conditioning; thermal energy systems; automation of manufacturing; mechanical design optimisation; industrial robots; simulation; machine tools and machining; measurement processes and means; power hydraulics; railway vehicle dynamics and design; rail-vehicle and rolling stock technology; rail-vehicle technical operation processes and systems; and technical infrastructure of rail vehicles.

Faculty and research staff:
219 employees, including 19 professors, 32 associate professors, 111 assistant professors, one member of the Polish Academy of Sciences, three members of Russian Academy of Science, one member of Austrische Academy of Science.
Number of students:
3000 employees, including: regular full-time daily courses 1900, full-time evening courses 1100. First year enrollment: 880.

INSTITUTE OF MECHANICS AND MACHINE DESIGN (M-1)

Research fields: *mechanics of inelastic bodies and structures under constant and variable loads, structural stability, optimal structural design under stability constraints and in creeping conditions, toroidal shells, elbows and bellows, helical springs, de-cohesive carrying capacity, investigation of the shape of bodies subject to full plastification at the stage of collapse, dynamics and design of gear systems, design and optimisation of pressure vessels, mini-wind power plants, numerical analysis of structures, Trefftz method, CAD, vibration of continuous and discret – continuous systems, dynamic analysis of pneumatic – mechanical vibro--insulation systems, analysis and optimisation of active vibro-insulation systems, experimental stress and strain analysis, experiment and design methodology in bio-mechanics, bio-materials, mechanical properties of plastics and composites and their application in pressure vessels and refrigeration, and fatigue and tribology of plastics.*

The Institute is composed of:
Section of Mechanics of Deformable Bodies (M-11)
Section of Machine Design (M-12)
Section of Dynamics of Mechanical Systems (M-13)
Division of Experimental Mechanics and Bio-mechanics (M-14)



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

Research fields: *physical metallurgy of metals and alloys, steels for low and high temperatures, micro-alloyed structural steels, materials for the power industry, corrosion resistant materials, effects of non-metallic inclusions on steel properties, fracture properties and de-cohesion mechanisms in metals; quantitative metalography and fractography heat and thermo-chemical 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 crystallisation, modern foundry technologies, serviceable properties of casts; powder metallurgy, sintering tools, methodology of experiments: CADEX programming, computer applications in materials engineering.*

The Institute is composed of:
Section of Physical Metallurgy (M-21)
Chair 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)

INSTITUTE OF HEAVY DUTY MACHINES (M-3)

Research fields: *computation methods and optimisation of cranes and conveyor constructions, dynamics of hydro-mechanical and electrical drives, transportation systems analysis, diagnostic and testing of heavy duty machines (taking into account thermal and sound insulation), adaptation of heavy duty machines for extreme climatic and environmental conditions; modelling and designing of hydraulic drivers and control equipment, diagnostics and testing of the dynamic properties of power systems, research on automatisation of duty motion; development of methods for structural, kinematic and dynamic analysis of mechanisms and manipulators, basis of synthesis and design of mechanisms of heavy duty machines, application of methods of the theory of mechanisms to testing and development of mechanisms used in heavy duty machines and vehicles, paramertic optimisation of earth-moving machinery and equipment, dynamics of mobile heavy duty machines (with particular consideration given to the influence of chassis type on kinematic excitation, methods of synthesis and design of optimum active systems for the reduction of low-frequency vibration in heavy duty machines with hydraulic effectors); and preparation of technical documentation for mechanical engineering, using various computer software (AutoCAD, InterCAD, WellCAM). All sections of the Institute carry out their research work using 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 Power Systems and Automation of Heavy Duty Machines (M-32)
Section of Theory of Mechanisms and Manipulators (M-33)
Unit of Technical Documentation (M-34)
Laboratory (M-35)

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

Research fields: *vehicle dynamics: effects of wheel guidance mechanisms and parameters on vehicle handling; modelling of passenger car using multibody dynamics; vehicle handling; measurement, recording and evaluation methods and measurement procedures for 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 of automobiles; hybrid and electrical drive systems of automobiles; reduction of engine emissions; application of alternative and renewable fuels in engines (e.g. natural gas, alcoholic fuels, vegetable oils); noise and vibration in engines; turbocharging processes of engines; 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 Mechatronics (M-43)
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)
Section of Special Engines (M-48)

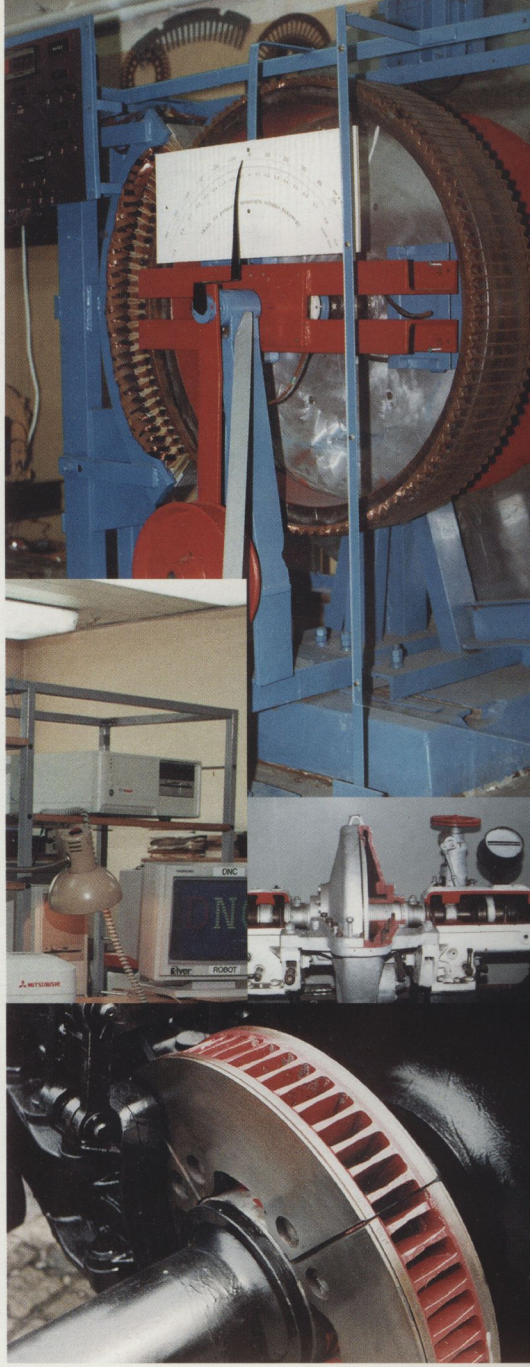
INSTITUTE OF INDUSTRIAL APPARATUS AND POWER ENGINEERING (M-5)

Research fields: *research, 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 solid bodies; improvement of balance methods and thermal systems measurement; computer simulation of reciprocating compressors, research on pressure pulsation in compressed gas pipelines, dynamics of steam boilers and power generating blocks; inverse heat conduction problem, pressure components inventory planning with regard to their life and wear; refrigeration and air conditioning; heat pumps and waste heat utilisation equipment.*

The Institute is composed of:
Section of Industrial Equipment and Process Engineering (M-51)
Section of Fluid Mechanics (M-52)
Section of Thermodynamics and Heat Machines Measurements (M-53)
Section of Power Engineering Machines and Installations (M-54)
Section of Refrigeration and Air Conditioning (M-55)

INSTITUTE OF PRODUCTION ENGINEERING (M-6)

Research fields: *automation and robotics of production processes in the engineering industry; machining methods and computer control systems with computerised measurement-controls; complex automation of machining, CAD/CAM designing in technology, machine tools and machine elements; flexible manufac-*



-turing systems, automated machine tools, special technologies – e.g. wear resistant coating for tools and machine elements, methods and means of electro-machining, tests on measurement and multi-coordinate machines, application of lasers in testing machine 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 composed of:
Manufacturing Systems Chair (M-61)
Section of Manufacturing Processes and Quality Systems (M-62)
Section of Machining and Cutting Tool Systems (M-63)
Section of Hydraulic Drive and Control (M-64)

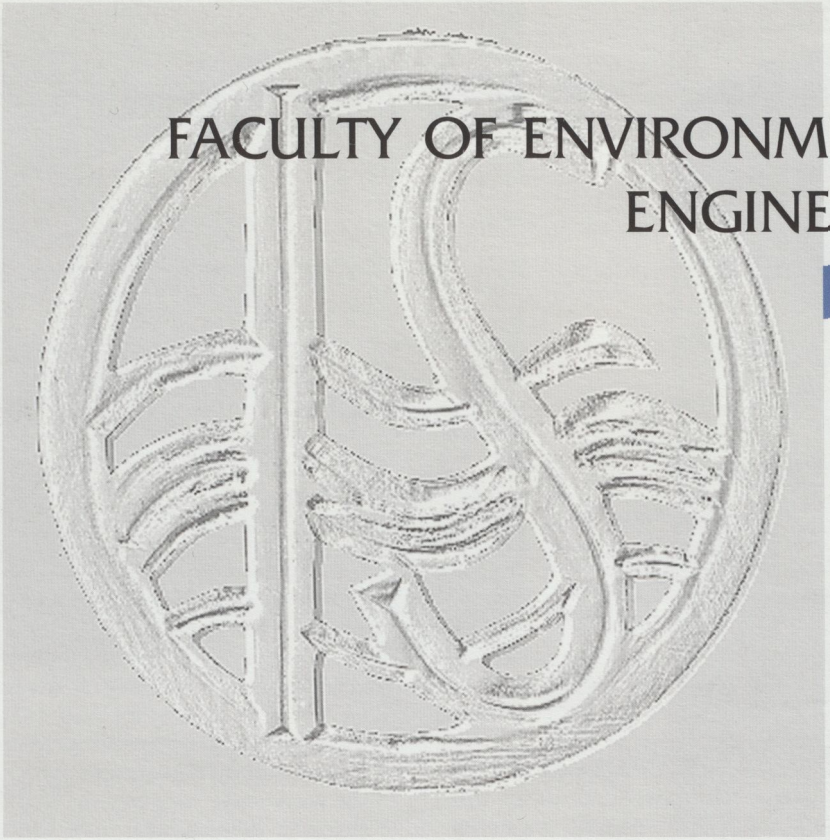
SECTION OF COMPUTER SCIENCE APPLICATION (M-7)

Research fields: *extensive research in computer science, programmes for computer aided designing and experiment analysis (DOE) within CADEX package (covering present ESDET and IDEF programmes); theoretical work on computer simulation of powder pressing.*

INSTITUTE OF RAILWAY VEHICLES (M-8)

Research fields: *tractive vehicle and rail car construction and design; drive and brake computation; braking systems of rapid passenger trains and long freight train experimental research; rail vehicle dynamics; dynamics of vehicle suspension and drives; vibro-isolation systems; active and passive suspension; computational simulation of vehicle-track interaction on complex continuous models; new production and repair technology of for the rolling stock; new construction materials for rail vehicle elements; selection methods for modern transport markets; logistics in rail transport; technical infrastructure of rail vehicles; diesel locomotive diagnostics; rail vehicles and rolling stock reliability optimisation; basic types of wear of rail vehicles in relation to their reliability; investigation of technical operation processes; computer supported technical operation systems; technical condition diagnostics of rail vehicles; computer simulation of technical operation processes; data bases of rail vehicle technical operation systems; and technical operation of tramways.*

The Institute is composed of:
Section of Rail Vehicle Dynamics and Design (M-81)
Section of Reliability and Technical Operation of Vehicles (M-82)
Section of Technology and Infrastructure of Rail Vehicles (M-83)



FACULTY OF ENVIRONMENTAL ENGINEERING

INSTITUTE OF WATER ENGINEERING AND MANAGEMENT (Ś-1)

INSTITUTE OF GEOTECHNICS (Ś-2)

INSTITUTE OF WATER SUPPLY AND ENVIRONMENTAL PROTECTION (Ś-3)

SECTION OF STRUCTURAL MECHANICS (Ś-4)

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

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 633 55 71, 633 03 00 ext. 28 01
fax: (+48 12) 633 55 71
E-mail: s-0@admin.pk.edu.pl

faculty
ADMINISTRATIVE OFFICERS

Dean: *Assoc. Prof. Teresa LUBOWIECKA, D.Sc., Ph.D.*

Vice-Deans:
Assoc. Prof. Jerzy RATOMSKI, D.Sc., Ph.D.
Assoc. Prof. Renata KOCWA-HALUCH, D.Sc., Ph.D.
Prof. Henryk BRYŚ, D.Sc. Ph.D.

Degree courses and specialisations:
The teaching covers the following: hydro-engineering; computer mechanics in environmental engineering; water supply; sewage and wastewater treatment, heating, air conditioning and air protection; earth surface protection; water management and hydrology; water systems' monitoring.

Main research fields:
Methodology of mathematical modelling of flow and run-off in river catchments; flood protection studies; macro-scale models of water exchange dynamics in the natural environment; short term hydraulic ground water management; hydro-meteorological data collection and processing, structural data bases using satellite data; investigation of biogenic and chemically detrimental substances in water habitats; hydraulics in municipal water facilities design; designing of complex hydro-technical mountain catchments; numerical modelling of the effect of shrinkage and thermal changes on concrete of hydro-technical objects; designing of hydro--technical structures; reliability of water supply, sewage disposal and environment protection systems; engineering hydro-geology; foundations and mechanics of soils; municipal wastewater recovery for industrial purposes; removal of biogenic compounds from sewage; small highly efficient biological wastewater treatment plants; mathematical modelling of heat and mass transfer processes in thermal systems; heating systems design; waste heat recovery in industrial and municipal buildings; renewable energy sources in household; appliances for heat and power cogeneration; solid waste disposal; desulphurisation of flue gases; compressor and absorption heat pumps.

Faculty and research staff:
229 employees, including 9 professors , 19 associate professors and 73 assistant professors.

Number of students:
Total number of students enrolled: 1791; including regulary dalily courses 1057, first year enrollment 360; evening courses 734, first year enrollement 300.

INSTITUTE OF WATER ENGINEERING AND MANAGEMENT (Ś-1)

Research fields: *transport of water, pollution sediment; dynamics of river channels; flood control; hydraulics of water structures and municipal installations; water cycle; hydrology of mountainous and agricultural catchments; hydrologic operational systems; automatic systems of hydrometric data collection and management; stability of river channels; rivers and streams training; waterways; modelling of hydrotechnical systems; design of weirs and spillways; strength and stability of water structures; water management systems; computer systems in water management; protection and use of water resources; technological processes at water treatment plants.*

The Institute is composed of:
Section of Hydraulics and Hydromechanics (Ś-11)
Section of Hydrology (Ś-12)
Section of Water Management (Ś-13)
Section of Construction Engineering (Ś-14)
Section of Hydrological Systems and Forecasting (Ś-15)

INSTITUTE OF GEOTECHNICS (Ś-2)

Research fields: *theoretical and experimental problems in soil and rock mechanics; new technologies in ground foundation works and construction; geotechnic problems in historical monument restoration; industrial waste materials utilisation in geotechnics; petrographic, geological and hydro-geological problems in hydro-engineering; geodesic measurement of structure deformation.*

The Institute is composed of:
Section of Engineering Survey (Ś-21)
Section of Engineering Geology and Hydro-geology (Ś-22)
Section of Soils Mechanics and Foundation (Ś-23)

INSTITUTE OF WATER SUPPLY AND ENVIRONMENTAL PROTECTION (Ś-3)

Research fields: *water supply of municipal and rural areas and industrial plants including water treatment, transportation, storage reservoirs and distribution networks; application of reliability theory in water and sewage systems; protection of impoundment reservoirs from negative impact of river damming; water and sewage system analysis; engineering facilities for centres applying water therapy methods; municipal, rural and housing areas sewage collection; objects and units for wastewater transportation and storage; wastewater treatment and reclamation; sludge treatment and disposal; water and wastewater analysis; technological tests of drinking, industrial and special purposes water, municipal and industrial*

wastewater and stormwater; utilisation and disposal of sludge from water and wastewater treatment plants; efficiency and energy consumption at wastewater treatment plants; advanced anaerobic treatment plants; nutrient removal processes including biological removal of nitrogen and phosphorous; sanitary biology with emphasis on hydro-biology and epidemiology.

The Institute is composed of:
Chair of Supply and Sewage Removal (Ś-31)
Section of Water and Wastewater Treatment (Ś-32)
Section of Environmental Protection Principles and Systems (Ś-33)
Section of Sanitary Biology (Ś-34)

SECTION OF STRUCTURES MECHANICS (Ś-4)

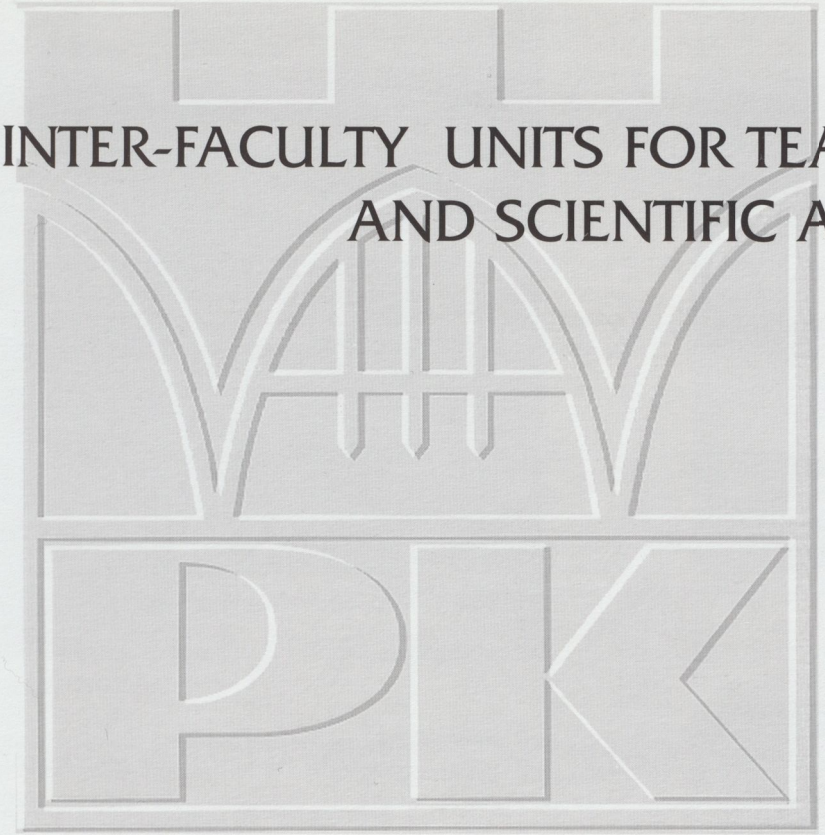
Research fields: *numerical methods for the analysis of concrete and massive structures including rheological, thermal and dampness phenomena; mechanics of embankments subject to seismic loads - with computer science application.*

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

Research fields: *mathematical modelling of heat and mass transfer processes; optimisation of thermal and refrigeration processes and systems; heating, ventilation and air conditioning systems in municipal and industrial complexes; combustion of gas, liquid and solid fuels in communal appliances; heat management and technology; waste energy recovery by heat pumps; eco-cybernetics in urban areas; municipal and industrial solid waste disposal; cleaner technologies; fluidised bed reactors for solid waste incineration; hazardous hospital waste treatment; flue gases purification and desulphurisation.*

The Institute is composed of:
Section of Thermal Processes, Metrology and Air Protection (Ś-51)
Section of Heating, Thermal Systems and Waste Utilisation (Ś-52)
Section of Ventilation, Air Conditioning and Refrigeration Systems (Ś-53)

INTER-FACULTY UNITS FOR TEACHING AND SCIENTIFIC ACTIVITY



INSTITUTE OF ECONOMICS, SOCIOLOGY AND PHILOSOPHY (U-1)

INSTITUTE OF MATHEMATICS (U-2)

INSTITUTE OF PHYSICS (U-3)

COMPUTER CENTRE (U-4)

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 634 10 19
fax: (+48 12) 634 10 19
E-mail: pr-0@admin.pk.edu.pl

ADMINISTRATIVE OFFICERS

Acting Dean:

Prof. Marcin CHRZANOWSKI, D.Sc., Ph.D.

INSTITUTE OF ECONOMICS, SOCIOLOGY AND PHILOSOPHY (U-1)

Teaching and research fields: *logistics of relations between technology and economics, rationality of business activities and optimisation of enterprise management; general sociology and sociological theories of city, industry and law; problems of epistemology and philosophy of science, ethics, axiology and philosophical anthropology.*

Faculty and research staff:
18 employees, including 3 professors, 2 associate professors and 10 assistant professors.

The Institute is composed of:
Section of Economics, Management and Marketing (U-11)
Section of Sociology and Contemporary Culture (U-12)
Section of Philosophy and Ethics (U-13)

INSTITUTE OF MATHEMATICS (U-2)

Main 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 differential geometry, algebraic geometry, linear and multi-linear algebra, matrix theory, semi-analytic and sub-analytic sets, probability theory and stochastic processes, mathematical logic and foundations, general algebraic systems, fluid mechanics, mechanics of particles and systems.*

Faculty and research staff:
44 employees, including 3 professors and 16 assistant professors.

The Institute is composed of:
Section of Mathematical Analysis (U-21)
Section of Complex Analysis (U-22)
Section of Differential Equations and Functional Analysis (U-23)

INSTITUTE OF PHYSICS (U-3)

Main research fields: *elements of 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 constrains; theory of vibrations; liquid crystal physics; physical properties of synthetic polymers, biopolymers and their charge-transfer complexes; photolumi-nescence and electroluminescence of polymer diodes; surface physics.*

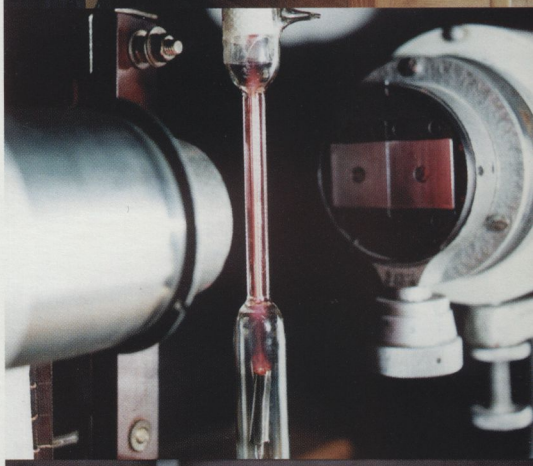
Faculty and research staff:
46 employees, including 2 professors, 3 associate professors and 12 assistant professors.

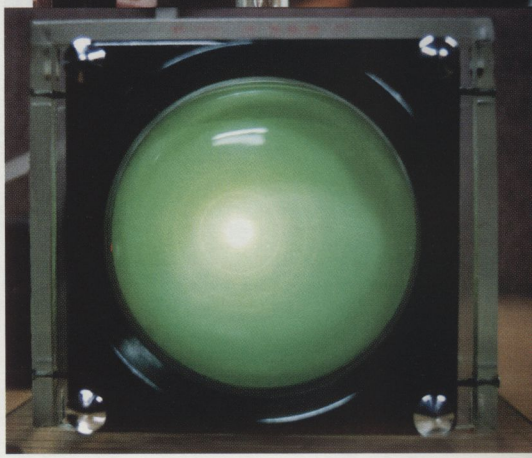
The Institute is composed of:
Section of Solid State Physics (U-31)
Section of Technical Physics (U-32)
Section of Magnetic Properties of Solids (U-33)

COMPUTER CENTRE (U-4)

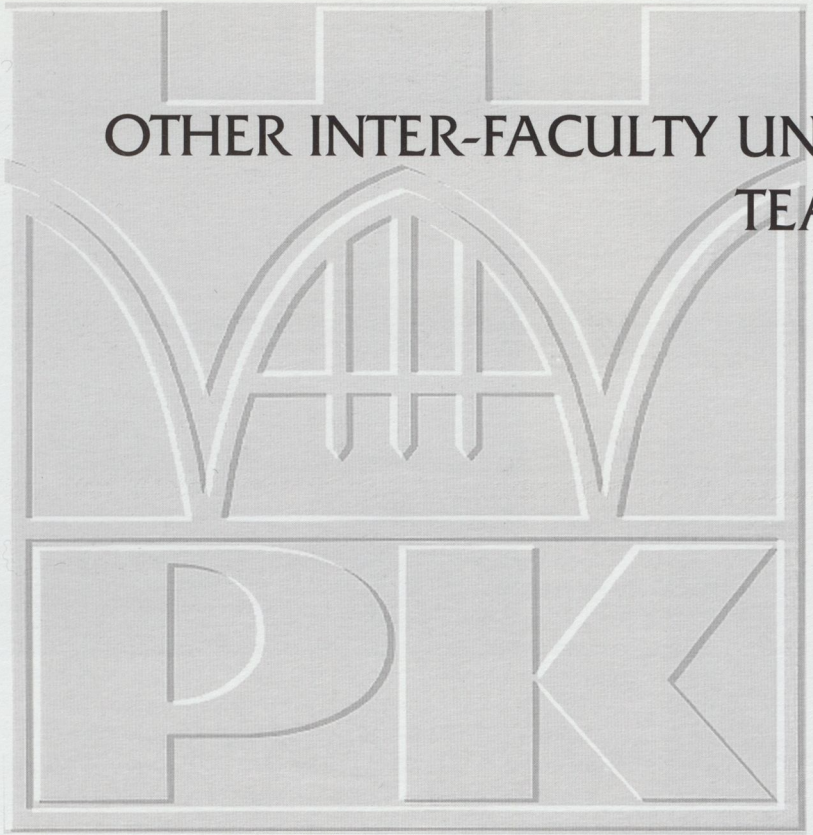
Main activities: *basic training in computer science; operating systems; programming languages; networking; numerical methods; computer graphics; CAD; computational methods in mechanics (finite element, finite difference and boundary element methods, mathematical foundations).*

Research and teaching staff:
17 employees, including 2 professors, 15 assistant professors.





OTHER INTER-FACULTY UNITS FOR TEACHING



URBAN EDUCATIONAL CENTRE (O-2)

FOREGIN LANGUAGES CENTRE (O-3)

PHYSICAL EDUCATION AND RECREATION CENTRE (O-4)

PEDAGOGY END PSYCHOLOGY CENTRE (O-5)

Address:
Warszawska 24, PL 31-155 Kraków
tel: (+48 12) 633 82 08
fax: (+48 12) 633 82 08
E-mail: pd-0@admin.pk.edu.pl

ADMINISTRATIVE OFFICERS

Acting Dean:

Prof. Ryszard H. KOZŁOWSKI, D.Sc., Ph.D.

URBAN EDUCATIONAL CENTRE (O-2)

The Urban Educational Centre *was created at CUT in 1985 as an inter-departmental unit following a decision of the Minister of Science and Higher Education. The mission of the Centre is 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.*
The Centre runs also year long preparatory courses for foreign students intent on studying architecture or other technical subjects in Poland.

Academic Courses
Preparatory courses for Ph.D. studies
The syllabus covers topics related to the doctoral dissertation, Polish culture, as well as topics to candidates' interests. The courses are run in English, but can be combined with the study of Polish language.

Ph.D. courses
The Urban Educational Centre offers Ph.D. courses in the fields of urban and regional planning. 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 co-operate closely with the Centre. This situation provides an unusual opportunity to undertake practical interdisciplinary projects. Ph.D. candidates can become involved in practical projects, thereby improving their professional experience and expertise.

A preparatory course for foreign students *was launched in 1988 to provide preparation for foreign students intent on studying at Polish universities.*

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

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

Polish language for Ph.D. and post graduate candidates
Vocabulary is adapted to the need of the candidate.

FOREGIN LANGUAGES CENTRE (O-3)

Areas of activities: *five languages are taught: English, French, German, Italian and Russian 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 Gama-Bell, the Goethe Institute, Institut Francais, A. Pushkin Institute of the Russian Language, Societa Dante Alighieri Cimitato di Firenze. Such co-operation helps in upgrading the teachers' qualifications and in obtaining the latest teaching materials.*
The Centre provides services in translation, interpretation and language consultancy.

PHYSICAL EDUCATION AND RECREATION CENTRE (O-4)

The Physical Education 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 sporting disciplines. The Centre has its own sports facilities: two gyms (one of them is situated at 17 Kamienna street, and was only opened in 1996), three body building clubs, an aerobics room sports fields and tennis courts. 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 sporting disciplines, such as team games, swimming, skating, aerobics, athletics, tennis, and skiing, gives students an opportunity of a varied physical development.
The teachers at the Physical Education and Recreation Centre also act as coaches for various sports sections of the Academic Sports Club. The sections focus on professional sporting disciplines.
Besides teaching and coaching the Physical Education and Recreation Centre together with the Academic Sports Association, organise many national sporting events in which everybody can take part. Among them are: the Kościuszko Street Relay Race, Sailing Regattas, the Basketball Tournament, the Fiesta and the Czyżynalia. The inter-faculty sailing courses held in the Centre Sailing Club in Żywiec and skiing courses create an additional possibility of getting a wider group of students, professors and university staff being interested in the idea of a "Healthy Lifestyle".

PEDAGOGY AND PSYCHOLOGY CENTRE (O-5)

In our Pedagogy and Psychology Centre pedagogical skills are taught and improved to young research - didactic staff, teaching qualifications are conferred to students from various faculties who desire to get the title of the technical teacher. The pedagogic education is also available to all interested graduates of high schools. Co-operating with technical schools, we organise educational conferences and scientific research.

THE UNIVERSITY LIBRARY

EDITORIAL BOARD OF PUBLICATIONS

PRINTING HOUSE

CAREERS SERVICE

THE UNIVERSITY LIBRARY

The Library is located on three sites (the Central Library in Warszawska Street and in two Students' Residential Halls DS-2 and DS-4 in Czyżyny). It has a total bookstock of 310.000 volumes and subscribes to 1020 periodical titles. The Library houses collections connected with the teaching and research of the University: architecture, civil and water engineering, sanitary engineering, mechanics and machine design, vehicle and railway transport, electronics, chemistry and chemical technology, computer science, scientific information. The books, periodicals and special collections (standards, patents, business reference materials, graphics, audio-visual aids etc.) are available in the reading rooms and in a loan service system. The system covers mainly technical publications but also fiction. The loan facilities can be used to obtain materials (Polish and foreign) not on the shelves. The reading room in DS-4 is equipped with reading apparatus and microfilms are also available to students and staff.

There are reprographic facilities available: photocopies, xerox, microfilms and slides can be obtained. The Section of Scientific Information provides catalogues, documentation, facto-graphic resources, and text translations. It also runs the teaching of librarianship, and summer practical training for students of librarianship. Also every University student is trained at the beginning of each academic year in use of the Library. The bibliography of publications of the University Scientific Staff, and Selected Lists of Recent Foreign Acquisitions are databases available on WWW home page of the Library.

The British computer programme TINLIB for every library tasks (acquisition, cataloguing, circulation, serials) were implemented. It is possible to obtain access to the Library OPAC via telnet (bib.biblos.pk.edu.pl, ID: tinlib, Passw.: tinlib) or via World Wide Web (WWW) (http://www.biblos.pk.edu.pl).

The Library co-operates with technical libraries from Great Britain, Germany, USA, Netherlands, Spain and Greece among other in scope of TEMPUS Phare projects.

EDITORIAL BOARD OF PUBLICATIONS

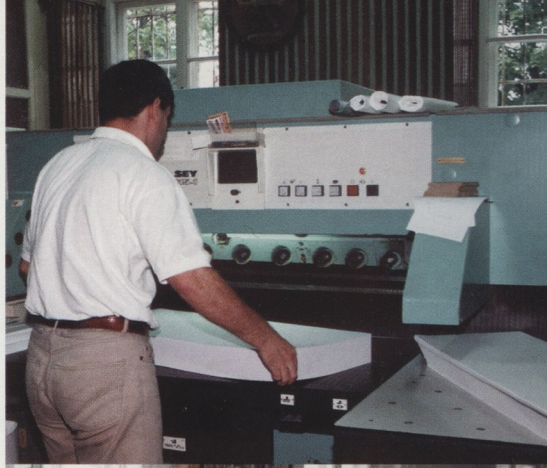
Area of activities: *preparation and execution of the publishing programme of the school; editorial work and distribution of publications, such as: Scientific Papers of Cracow University of Technology, Monographs , manuals , Technical Bulletin and books of reference.*

PRINTING HOUSE

Area of activities: *printing of Scientific Papers, Monographs, manuals and other teaching aids, books of reference, as well as printing jobs for the needs of the School.*

CAREERS SERVICE

The idea of a Careers Service *supports students at the stage of their transition from education to labour market. Student advisors who work here give professional advise and organise courses to help students to take decisions concerning their future career. Another important role of the Careers Service is establishing contacts with employers, organising employers' presentations at the University and circulating information about work at different companies. Those activities are aimed not only at bringing students and employers together, but also at promoting the University and bringing the academics closer to the labour market. Until recently the academic teachers have not felt the responsibility for the professional career of their students and have had little contact with labour market. Nowadays, with educational reform, at the time of change in students' needs, society structure, and the labour market, universities are very eager to establish specialised agencies which prepare graduates to enter the labour market.*



STUDENTS' UNION

STUDENTS' SPORT ASSOCIATION – UNIVERSITY CLUB

THE "NZS" INDEPENDENT STUDENTS' ASSOCIATION OF THE CRACOW UNIVERSITY OF TECHNOLOGY

THE POLISH STUDENTS ASSOCIATION

"NOWINKI" STUDENTS' BROADCASTING CENTRE

"KWADRAT" STUDENT CULTURAL CENTRE

"CANTATA" ACADEMIC CHOIR OF THE CRACOW UNIVERSITY OF TECHNOLOGY

THE "BAWINEK" STUDENT DANCING CLUB

"1, KANONICZA STREET" ART GALLERY – DEPENDENT THEATRE

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

ASSOCIATION OF ALUMNI OF CRACOW UNIVERSITY OF TECHNOLOGY

"OUR UNIVERSITY OF TECHNOLOGY"

STUDENTS' UNION

All students become members of the Union automatically. Its task is to represent students before the School authorities, participation in governing the School via its representatives in collective bodies and organisation of students' living conditions.

There are the following permanent commissions of the Union:

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

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

STUDENTS' SPORT ASSOCIATION - UNIVERSITY CLUB

***The Academic Sports Association** has been actively operating at the Cracow University of Technology for forty-six years now. The Association co-operates with the Physical Education and Recreation Centre. In the academic year of 1997/1998 there have been twenty-one sport sections with 530 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 sport 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 OF THE CRACOW UNIVERSITY OF TECHNOLOGY

The "NZS" Independent Students' Association is a social-political student organisation which has continuously developed its activities at the Cracow University of Technology for 18 years. "NZS" was established owing to the student protests in 1980-1981. The present "NZS" is already the so called third generation at our University. This Association became reactivated by the end of 1996. Its principal objectives are to awaken the young generation consciousness, to form proper citizen's and patriotic attitudes (for example through political meetings and disputes, demonstrations, pickets, campaigning actions, for example against sects), to run typical students' activities like mountaineering rallies, bonfires, etc.

By the end of 1997, the first inaugural issue of the students' newspaper called "Lobby" appeared and from October 1998, this newspaper will be edited on a regular monthly basis.

THE POLISH STUDENTS ASSOCIATION

This is an All-Polish Association uniting academic youth for the purpose of joint defence of rights and demands of the university milieu and of developing the students' interests and personalities. This Association organises camps and "Freshers" events for the 1st course 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" STUDENTS' BROADCASTING CENTRE

Student broadcasting began at the university in 1951, but became established in 1959 when the "Nowinki" Students' 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 relayed via a new broadcasting studio within the building at the Czyżyny settlement (Cracow).

A move into another hostel provided the facilities to make and broadcast programmes. However, in 1979 the two statios were connected by cable and, in 1980, it became known as the NOWINKI BROADCASTING CENTRE. Since 1988, the centre has been housed in the Czyżyny settlement, in the Skarżyńskiego Street (hostels at 7, Bydgoska Street were emptied and returned to the Municipality).

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 artistic happenings, etc.).

"KWADRAT" STUDENT CULTURAL CENTRE

This student Cultural Centre at CUT was established in 1992, the auspices of the University Board of the Academic Sporting Association, as well as CUT Hostels Council. During those 6 years, the "Kwadrat" Centre was able to develop very successful activities and, thus, has become an important element of the CUT students'cultural life. Curtural events organised by "Kwadrat" include, among the others: discos, traditional CUT balls ("The Freshers'Ball", the "Andrew's Day Ball", the "New Year Eve Ball"), election of "The Nicest CUT Student", cabaret and/or rock-group performances. The "Kwadrat" also affers TV programs, music, etc.; all events enjoy great popularity and attract real attention, so, that sometimes it is very crowded. 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. The history of the Centre is rich and fascinating, so is its present day. Soon, our students will amuse themselves at the "The 1998 Fresher's Ball"during which our 1st course students will be finally accepted as "full rights"student of the Cracow University of Technology.

"CANTATA" ACADEMIC CHOIR OF THE CRACOW UNIVERSITY OF TECHNOLOGY

"Cantata" - Academic Choir of the Cracow University of Technology was established in 1990 by Mrs. Małgorzata Januszewska, who continues to run it until the present day. Students (male and female) of all Cracow colleges and universities can be members of this 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 folks 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 Ensemble performed concerts in the Czech Republic, in Germany, Finland, Austria, and Hungary, and everywhere enjoyed great aclaim.

THE "BAWINEK" STUDENT DANCING CLUB

The "Bawinek" Student Dancing Club has been developing its activities for 35 years. Presently, Mrs. Małgorzata Wierzba and Mr. Krzysztof Gronuś, a professional dancing pair, run it.

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 20 dancing pairs improving their skills in classes from E to S (in August 1998, a 10 day dancing camp was organised in Rozdziele near Limanowa, Southern Poland).

"1, KANONICZA Street" Art Gallery – Dependent Theatre

The University authorities have always intended and tried to promote the idea of humanisation in its all various aspects; thus, it was possible to include into the structures of the University - thanks to the approval of the School authorities - the Art Gallery named "1, Kanonicza Street", located at 1, Kanonicza Street in Cracow which was run previously as "an underground" Gallery .

"1, KANONICZA Street" Art Gallery and the "Dependent Theatre" are situated in the 16th century cellars of the building at 1, Kanonicza Street.

Both the Gallery and the Theatre have their own history. Since 1992, in the underground part of this building, artistic happenings have been organised, the first ones having been held during the European Month of Culture in June 1992. From October 1992 to November 1995, the Cracow theatre "Teatr Ludowy" had its second "stage" in the cellar where various performances were presented; this second stage was known as "1, Kanonicza Street".

The stage of the "Teatr Ludowy" was liquidated but its ***genius loci*** *remained and inspired people to establish a "Dependent Theatre" which was born in December 1995. This theatre is "dependent" on its actors and actresses who want to play on this stage, it is "dependent" on spectators who want or don't want to come and see a performance, and it is also "dependent" on sponsors.*

Parallel to establishing the theatre stage, a "1, Kanonicza Street" Art Gallery was set up. Prior to official acceptance of the Gallery and its registration, more than 70 exhibitions were held: of architects, University employees and students of several Cracow universities: for instance Cracow University of Technology, Fine Arts Academy. Also, many other people exhibited their works in this Gallery: professional artists, disabled artists, "differently gifted" children (autistic children), children of Poles living in U.S.A., artists from Austria, France. The Gallery and the Theatre have managed to achieve their permanent and honorable place in the cultural life of Cracow.

Exhibitions are open to the public in the Gallery and in the coffee-shop named "Inquisitor". Usually, works are displayed in the Gallery for two or three weeks, and in the coffee-shop for one month. First nights and official openings are normally on Mondays.

Detailed information on the theatre repertoire and exhibitions is given, among the others places, in the Cracow dailies, in the Cultural Information Centre, in monthly magazines "Karnet" and "A month in Cracow", in the TV Cracow telegazette, and in several broadcasting stations.

THE 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.

Mrs. Maria Balewiczowa was the first Gallery Director; in 1978, Mrs. Anna Geratowska replaced her in this post. During the "martial state" in Poland in the early eighties, the Gallery suspended its activities, and started them again in October 1986, with Mrs. Barbara Skąpska (that time the general art specialist at the University) as its new Director (October 1976 to December 1987). The present Director is Mrs. Maria Molo who succeeded Mrs. B.Skąpska and remains in this post until the present day.

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 all those years from 1973 until today, many creators and artists exhibited their works in the Gallery, among them people and organisations as famous as Krystyna Wróblewska, Janina Kraupe-Świderska, Adam Hoffmann, Ludomir Śleńdziński, Stanisław Rodziński, Jan Świderski, Wiktor Zin, "Wprost" Group (Jacek Waltoś, Zbylut Grzywacz, Leszek Sobocki, Maciej Bieniasz, Barbara Skąpska), Roman Skowron, Sławomir Lewczuk, Stefan Dousa, Ewa Gołogórska-Kucia, Irena Popiołek, Leszek Dutka, Adam Brincken, Andrzej Kapusta, Grzegorz Bednarski, Tadeusz Boruta, Jarosław Kawiorski, Teresa Zabrzeska, Ewa Ławrusiewicz, Wojciech Ćwiertniewicz, Edward Dwurnik, Stanisław Kuskowski, Stanisław Tabisz, Jan Zych, Paweł Zechenter, Jadwiga Kaim-Otręba, and many, many others.

Of course, the Gallery used to invite and promote 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 recent jubilee exhibition, held to honour the 25th anniversary of the Gallery, was a great event in the University's history. The work of more than 80 artists who had already exhibited their works here, were shown this time, too.

ASSOCIATION OF ALUMNI OF CRACOW UNIVERSITY OF TECHNOLOGY

The Association of Alumni was founded in 1958 on the basis of a 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 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 members and their families; organising branch affiliations in the country; allocating grants; and publication of bulletins on the activities of the Association and School.

POLITECHNIKA KRAKOWSKA
im. Tadeusza Kościuszki

NR 1/98

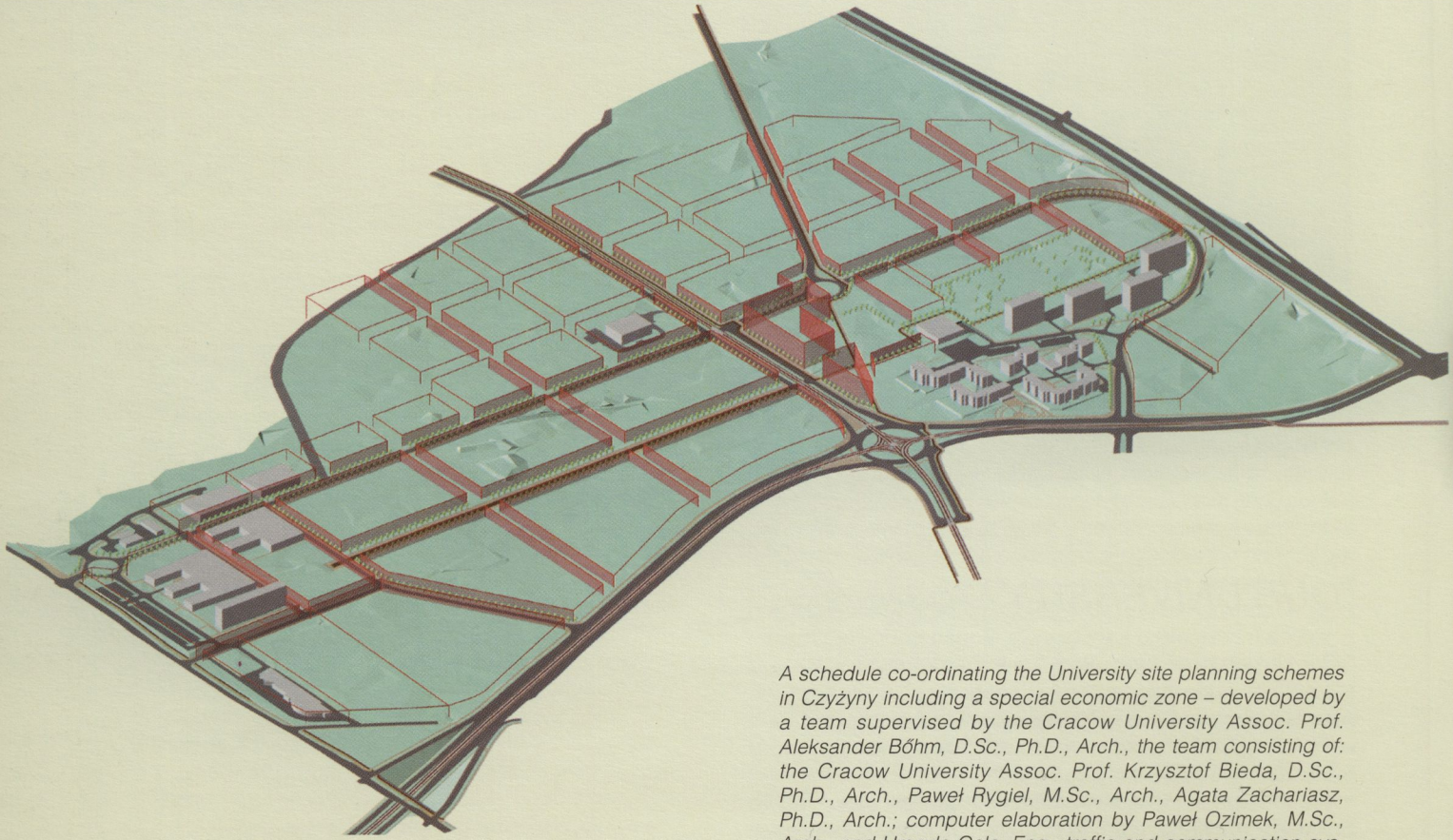
NASZA POLITECHNIKA

ISSN 1428-295 X

"OUR UNIVERSITY OF TECHNOLOGY"

" Our University of Technology" is a magazine issued every two months since it appeared two years ago. It addresses the community of the Cracow University of Technology, and each edition has 1000 36-page copies with many illustrations, and 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 of 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 the Cracow University Assoc. Prof. Aleksander Bőhm, D.Sc., Ph.D., Arch., the team consisting of: the Cracow University Assoc. Prof. Krzysztof Bieda, D.Sc., Ph.D., Arch., Paweł Rygiel, M.Sc., Arch., Agata Zachariasz, Ph.D., Arch.; computer elaboration by Paweł Ozimek, M.Sc., Arch., and Urszula Gola, Eng., traffic and communication system, costs, and co-ordination of phases: Wiesław Wańkowicz (IGPiK); infrastructure: Andrzej Trzos, M.Sc. (Intersystem Project Group)

Special Economic Zone KRAKÓW TECHNOLOGY PARK OF KRAKÓW UNIVERSITY OF TECHNOLOGY - CZYŻYNY CAMPUS

Following the voivode's application the Council of Ministers in October '97 the decision was made to establish a Special Economic Zone in Kraków. The Zone is located on three plots in Kraków: in Pychowice (19.34 ha – the owners: the Municipality of Kraków and Jagiellonian University), on the grounds of the Sendzimir Steelworks in Branice (17.6 ha – owned by the Steelworks) and on the grounds owned by the Cracow University of Technology (29.53 ha on CUT's Czyżyny Campus). The status of the Special Economic Zone has been defined as Kraków Technological Park and, at the same time, this is the name adopted for the SEZ. In this way, the main function of the zone has been determined as the development of high technologies in the area.

According to the definition used by the European Union (Directoriat XIII) 'a science park', sometimes called, technological park', is a development project located close to one or more institutions of higher education and research centres, or which has good working links with such institutions. The objectives of starting a science park are as follows:

- ***creation of and support for companies that are knowledge-based firms,***
- ***facilitation of technology transfer from the local academic and research centres to companies and organisations active in the park or outside.***

The Special Economic Zone - Kraków Technology Park is aimed at:

- ***development of the high technologies sector using the scientific and research potential of Cracow scientific community,***
- ***creation of favourable economic, infra-structural and organisational conditions for Polish and foreign investors who declare their readiness to use and to develop the existing scientific and research potential in Kraków in the domain of high technologies,***
- ***assistance in development and restructuring of the existing companies, mainly small and medium ones,***
- ***support for teaching and curricula development in Cracow universities.***

In accordance with the legal regulations, the owners of the grounds together with the State Treasury created the unit which manages the SEZ: the Kraków Centre for Advanced Technologies Ltd. CUT signed an agreement with the Centre authorising it to conduct negotiations with the potential investors and to carry out the investment projects in the zone on behalf of the University.
One should remember that the idea of a science park encompasses a much larger scope and contents than the Special Economic Zone. What is important is that the project should be carried out and developed with the participation of the whole scientific community in Kraków. 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 via the membership of the Supervisory Board.
Granting the status of the Special Economic Zone to the Kraków Technology Park will facilitate and accelerate:

- ***Restructuring of heavy industry and development of the Kraków region.***

- ***Development of Kraków as an academic and scientific centre.***

- ***Development of the region in line with the ecological policy of the State.***

CUT has long been 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 at present in full progress.

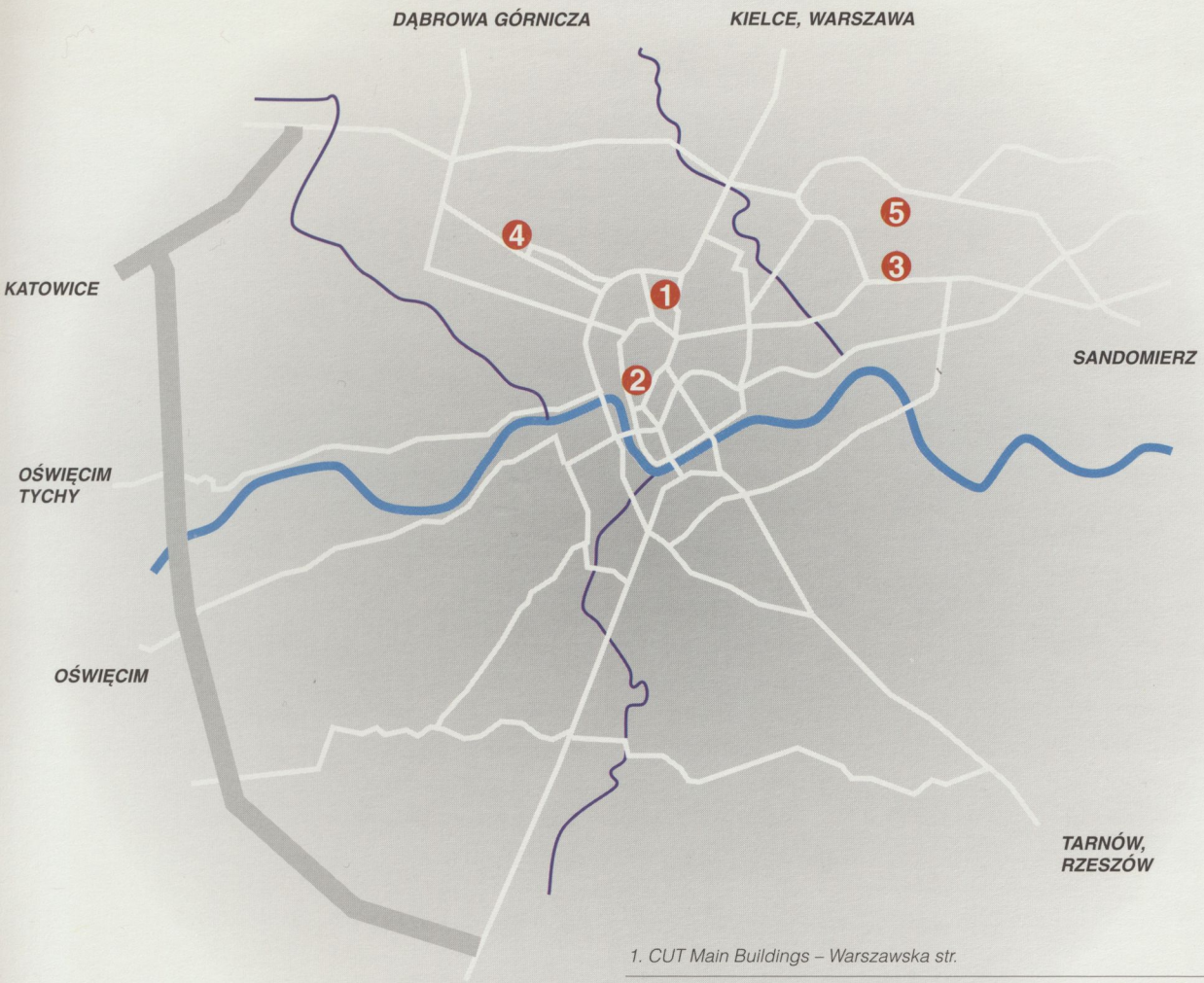
Development conditions:

The area of the Technology Park is qualified as a "public services area". It constitutes a part of the concept of development of the Czyżyny area with in the framework including, among other things, the following facilities being erected: an Aviation Museum (a former airstrip used by ambulance aviation is situated on the territory of Czyżyny), scientific and didactic facilities belonging to the Kraków University of Technology, recreation and sports facilities of the Academy of Physical Education, and others. No additional conservation or ecological preservation orders have been made in respect to the area of the Technology Park Zone for municipal development.

Situational plan – Czyżyny, Special Economic Zone

(© Municipality of Cracow, Promotion & Cooperation Bureau)

Situational plan – CUT



1. *CUT Main Buildings – Warszawska str.*
2. *Institut of History of Architecture and Monument Preservation – Kanonicza str.*
3. *Czyżyny – Faculty of Mechanical Engineering – Jana Pawła II str.*
4. *Section of Drawing Painting and Sculpture, and Extra Faculty Units CUT – Podchorążych str.*
5. *Student Halls of Residence, and CUT settlement – Skarżyńskiego str.*

15.00