

FOREWORD

Ladies and Gentlemen,

The Faculty of Civil Engineering was founded in 1938 as the first faculty of the Slovak University of Technology (SUT). It was originally located in both Košice and Martin. The launching of its first departments laid the foundations not only for the present Faculty, but also for technical education as a whole in Slovakia. Instruction was provided by three departments: the Department of Building Construction and Transportation, the Department of Water and Cultural Engineering, and the Department of Surveying. The first academic year started with 63 students on 5 December 1938.

In 1939, the Faculty moved to Bratislava. There, two branches, the Branch of Construction Engineering and the Branch of Specialised Sciences, which later became faculties of SUT, were formed. Another organisational change was adopted during the academic year 1946-47, when the Departments of Architecture and Civil Engineering were established.

In 1950, the Department of Architecture and Construction Engineering became independent, thus creating the foundations for the new Faculty of Architecture and Building Engineering. In the same year the Faculty of Civil Engineering was founded, and the Department of Geodesy became affiliated with it. Another significant change in the organisational structure of SUT was adopted in 1960, when the Faculty of Civil Engineering and the Faculty of Architecture and Building Engineering merged to create the new Faculty of Civil Engineering. The Faculty retained that structure until 1976, when four departments providing instruction in architecture and urban planning left to create the new Faculty of Architecture.

In the last seventy years the Faculty has produced more than 31,700 graduates and 1020 PhDs. The Faculty of Civil Engineering is now one of the largest engineering faculties in the University and in Slovakia as a whole. Shaped by a number of outstanding personalities in science and technology, the Faculty has become a leader in research and education in the fields of civil engineering and geodesy in Slovakia.

The Faculty of Civil Engineering presently consists of 22 departments, together with the Institute of Forensic Engineering, the IT Centre and the Library and Information Centre. Approximately 274 teachers comprise the Faculty staff, which consists of 37 professors and 71 associate professors. Approximately 3,700 undergraduate and 280 PhD. students are currently enrolled at the Faculty. Degrees from the Faculty provide a passport to rewarding professional careers in civil engineering, architecture, geodesy and cartography.

The Accreditation Committee of the Government of the Slovak

Republic confirmed the authority of the Faculty to award the Bc. degree in eight branches and the MSc. degree in 21 branches in graduate-study courses as well as the PhD. degree in 15 branches. Simultaneously, the Faculty also obtained the right to appoint associate professors and professors. This was the result of a periodical evaluation of the Faculty's scientific research and education, which represent the very high level of all the Faculty's activities.

A new system of study introduced after 1989 at the Faculty has recently been further updated to a credit-based modular-unit system. The first part of the study, a three-year or four-year curriculum (180 credits), leads to a bachelor's degree. It gives the student the theoretical and practical background necessary for further specialisation together with the basics of civil engineering. In order to broaden the students' educational perspectives, courses in the arts and social sciences, including philosophy, sociology, law, psychology and aesthetics, were added to the curriculum.

The second part of the system, which is aimed at developing special skills in an appropriate discipline, is completed by a thesis, the successful completion of which results in the award of the Diploma in Civil Engineering - Dipl. Ing., an M.Sc. equivalent degree. This part lasts two years (120 credits) and permits students to implement their individual goals for their vocational education and specialisation. Thereafter, a three-year Ph.D. study programme in all the major theoretical civil engineering subjects is offered to students with an M.Sc. degree.

The new study plan provides three means by which foreign students can attend courses offered by the Faculty. Presently, they can enter the B.Sc. and M.Sc. courses held in the Slovak language after taking a Slovak language course. English-language B.Sc. and M.Sc. programmes have been prepared for foreign students and are generally open to approximately 70 participants every year. An individual study programme is arranged for each Ph.D. candidate in English. The candidate is monitored by a supervisor and the doctoral committee. The study programme also includes teaching activities and a seminar in a foreign language. Ph.D. students can pursue their doctoral thesis in Slovak or a foreign language.

The civil engineering training is supported by education in foreign languages (English, German, Spanish, etc.) at all levels of instruction provided by the Department of Languages. Instruction in the Slovak language is also offered for foreign students. An extensive offering

of athletic activities by the Department of Physical Education also supports the engineering training.

Basic and applied research conducted at the Faculty is funded by a system of internal and external research grants from governmental and other sources. The Faculty's extensive participation in consulting activities, expert advice for governmental and local authorities and co-operation with the building industry contribute significantly to the funding of the research and international activities of the departments and the Institute of Forensic Engineering. The Slovak Journal of Civil Engineering, the Faculty's scientific journal, and a regularly published Annual Report, both in the English language, provide a detailed account of all instructional and scientific activities.

Environmental issues involving civil engineering design, including environmental impact assessments, have become a primary concern of the Faculty. Research priorities set by the Scientific Board of the Faculty include:

- new methods for improving the structural qualities of buildings,
- structural and dynamic safety and reliability of engineering structures,
- diagnoses of structural failures,
- ecologically sound design of traffic structures and traffic management,
- quality management in traffic engineering,
- geotechnical systems of groundwater protection,
- analysis of negative interactions between structures and geological conditions,
- impact of hydraulic structures on the environment,
- global climate change and the sustainable use of water resources,
- integrated land and water resources management,
- water quality management,
- the use of geographical information systems (GIS) in real estate land registers,
- urban information systems,
- revitalisation and modernisation of working and living environments,
- sustainable use of natural resources in the building industry,
- reducing energy demands in buildings,
- the use of alternative energy sources, including solar power,
- innovative building design concepts,
- the use of new materials and technologies in the building industry,
- the use of recycled industrial waste in the production of new building materials,
- quality management in civil engineering,
- the use of optimisation methods in civil engineering design.

The Faculty's specialists and their teams have participated in the design, implementation, and inspection of many significant and unique engineering structures, including all the bridges across the Danube River, the Gačikovo Hydroelectric Power Station, nuclear power plants and other industrial structures. A co-operative agreement between the Faculty of Civil Engineering and the city of Bratislava is aimed at solving problems related to the development of the capital of Slovakia, including municipal transport.

The Faculty also collaborates with the Slovak Institute of Standardisation. A number of experts from the Faculty are members or chairmen of its technical commissions. The Faculty has become a consultant to the Commission of European Normalisation (CEN), and representatives of the Faculty participate in various CEN commissions.

The Faculty's international activities focus on the following priorities:

- co-operation with faculties, departments, and institutions active in research and development in various civil and environmental engineering disciplines
- promotion of the Faculty's participation in multilateral research programmes with a special emphasis on EU projects
- supporting activities enhancing the Slovak University of Technology's international status as a research university
- active participation in existing programmes of international co-operation, such as TEMPUS, the 6th or 7th Framework Program, LEONARDO, SOCRATES and CEEPUS.

The Faculty is currently affiliated with more than 60 international governmental and non-governmental scientific organisations. The Faculty is an active member of the International Association of Civil Engineering Faculties (IACEF) and a guest member at the Permanent Conference of the German-Speaking Countries' Civil Engineering Faculties.

In recent years the international activities of the Faculty have been supported through participation in several TEMPUS and CEEPUS projects, the TEMPRA programme supported by the French Government, the SALP programme supported by the British Council, and projects funded by diverse governmental and independent foundations, such as Fulbright grants, DAAD grants, the British Government's Know-how Fund, the Open Society Fund, and various NATO, COST, and 6th Framework Program projects. These have significantly strengthened the Faculty's professional profile, improved its computer and laboratory equipment and enriched its libraries. More than 50 students and PhD. students of the Faculty have taken part in study programmes abroad.



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The New Library and Information Centre offers lending services for more than 105,000 publications. Its reading room provides direct access to domestic and foreign professional periodicals. It has 23 branch libraries in the Faculty's departments. The Library is an active member of the Association of Slovak Libraries and its section of academic libraries. It also actively co-operates with foreign civil engineering libraries and information centres.

Significant investments have been made in recent years to increase the University's computing capabilities. A LAN network has been installed on campus, and WiFi access is offered in all classrooms, labs and reading rooms. Classrooms equipped with PCs support the educational process. Internet and e-mail services are offered to the staff and students.

Ladies and Gentlemen,

You have the opportunity to read this special issue of the Faculty's scientific journal, the Slovak Journal of Civil Engineering (SJCE), which is devoted to the 70th anniversary of our Faculty. This issue of SJCE includes papers of the partners of our Faculty, who are well-known personalities in the fields of civil engineering, geodesy, cartography and the natural sciences. I hope you will enjoy and value the scientific level of the papers presented by their authors at the International Scientific Conference – 70 Years of FCE STU held on December 4-5, 2008, at the Faculty of Civil Engineering. I would like to use this opportunity to invite you to participate in this event and the celebration together with us, the member of the Faculty of Civil Engineering of STU Bratislava.

