Faculty of Informatics

Annual Activity Report 1997

Dean:	**Prof. RNDr Jiří Zlatuška, CSc.**
Vice-deans:	**Assoc. Prof. RNDr. Renata Ochranová, CSc.**
	Assoc. Prof. Ing. Jan Staudek, CSc.
Chairman of the Academic Senate:	**RNDr. Luděk Matyska, CSc.**
Secretary:	**Ing. Jana Foukalová**

Courses of study at the MU Faculty of Informatics are of a universal nature but have a strong basis in the theoretical foundations of the discipline of informatics and place a heavy emphasis on research. The Faculty is currently in the process of creating a system of study which is as open as possible to students and enables choice of academic subjects in accordance with individual interests. Since the academic year 1995/1996, the Faculty has used a credit system of study which comprises a combination of obligatory courses, specialised courses and optional courses selected in accordance with the student's professional priorities. In 1997, 833 undergraduates were studying at the Faculty, a growth of 38% over 1996. The Faculty introduced a system of administration based on the Internet, thereby making considerably easier for both staff and students the many tasks connected with studies administration (in a situation where a great variety of study types exists). The computer capacity of the Faculty was strengthened so as to reach the relation of one computer per eight students (mainly under the Unix system), this connected to the computer laboratories network and accessible outside of scheduled taught hours. The Faculty's base server was replaced with a Sun Enterprise computer. In 1997 the Faculty started reconstruction work on the building at Botanická 68a, where since January 1996 it has had its base under certain provisional conditions. The building of two large teaching rooms in the courtyard section was completed.

RESEARCH

The academic staff of the Faculty of is actively involved in research, a continuation of its success in grant projects on a domestic level, and also directs its energies into the running of projects with an international scope. The following are areas in which members of the Faculty are particularly active: theoretical informatics, an introduction to parallel and distributed systems and their projects, computer networks, supercomputing, electronic typesetting and desktop publishing, graphics and virtual reality, linguistics, hypertext systems, WWW, multimedia systems and the general social impact of IT, scientific calculation and the visualization of scientific data, software engineering and the methodology of programming, specification-based systems. The Faculty of Informatics was direct recipient of five grants to a total amount of CZK 2.2 million. At the end of 1997, the Faculty also obtained a grant from the Grant Agency of the Czech Republic for complex research in virtual reality which amounted to CZK 12 million and two long-term grants from the Ministry of Education, Youth and Physical Education's development of science programme focusing on applications connected to natural language and communications in it and on the processing of three-dimensional pictures of genetic information in

cells. Members of the Faculty of Informatics also participated in 15 significant international conferences and congresses held abroad and in 15 similar events in the Czech Republic.

EDUCATIONAL ACTIVITIES

At the present time, the education the Faculty provides is in the framework of study programmes for bachelor's, master's and doctoral degrees. A number of academic disciplines is organized in cooperation with the Faculty of Science (mathematics in particular), and the teacher combinations are inter-faculty courses. Informatics is the major subject for students of specialized studies who also subscribe to an ancillary discipline. The Faculty's courses provide for the completion of courses of informatics as the major discipline in two streams: either in the more practically-oriented bachelor's course, or in the more demanding and more theory-based master's course. Basic courses of both streams overlap, and quite flexible movement is possible between the two. The master's course requires the fulfilment of certain qualificational prerequisites at the end of the third academic year, at which time also those students who continue with the master's course obtain the bachelor's degree (which enables graduates to progress to a higher form of study at other institutes of higher education at home or abroad). The study of informatics as a major discipline stipulates that students specialize in at least in one academic discipline. The three-year bachelor's course sees students choose a specialization in accordance with their interests or plans for further study. The course is completed with the submitting of a practical project and the passing of the final bachelor's examination. The master's degree in informatics usually comprises a five-year course of study which is completed with the defence of a diploma work and a final master's examination. A graduate of the master's course in informatics has obtained a deep theoretical and practical knowledge of informatics and has fulfilled all preconditions so that he is in a position to become a highly-qualified expert in the fields of projects, development and operating of software and information systems. Depending on the specialization selected, the graduate may further specialize in a certain field of informatics or obtain a basic knowledge of another discipline. The master's course in the teaching of computer technology (in combination with another teaching discipline, such as mathematics or physics) is a five-year course preparing teachers of computer technology for all types of schools from eleven years upwards. Upon completion of the master's course, it is possible to continue one's studies with a three-year postgraduate course.

INTERNATIONAL CONTACTS

Twenty Faculty members are involved in the work of various committees of international conferences, boards of international professional societies and editorial boards. Nineteen academics were invited to participate in study- and lecture-stays abroad, whilst two lecturers from abroad gave presentations at the Faculty of Informatics in Brno. In 1997, the Faculty held the SOFSEM'97 international conference on the theory and practice of the creation of software systems. A group of students successfully participated in the ACM Professional Programmes Contest international event. Long-term active cooperation in theoretical research continued last year with City University London (Great Britain), the University of Namur (Belgium) and INRIA Rocquencourt (France). The Faculty also works together with RAL (the Ratherford Appleton Laboratory; Great Britain) in the fields of supercomputing, creation of fast networks, the hospital information systems project, heterogenous distributed database systems, integration and mutual data exchange and hypermedia data presentation as part of the COPERNICUS programme. Also achieved was cooperation over 15 months in the EC EuroWorldNet 2 (EC Telematic) project with a contribution of ECU 43,000. Members of the Faculty of Informatics are also board members of IEEE CZ, TUG (TeX User Group), ACM Chapter CZ and ERCIM. The Faculty played host to ten visitors from abroad, and another 22 invited lecturers were welcomed in Brno as participants in the SOFSEM 97 conference.

PUBLICATIONS

Teachers of the Faculty generated 141 publications, 93 of which at home and 48 abroad. Three monographs (two abroad) and 82 contributions were published in important review journals or festschrifts. Other work included educational and popular articles and textbooks.

HONORARY DOCTORATES AND VARIOUS MEDALS

These were awarded to the following: Prof. RNDr. Jozef Gruska, DrSc. – the MU Gold Medal and the Computer Pioneer Award of the IEEE Computer Society, USA; Doc. RNDr. Jiří Hořejš, CSc. – the Computer Pioneer Award of the IEEE Computer Society, USA.