

Faculty of Informatics

Annual Activity Report 1999

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| Dean: | Assoc. Prof. RNDr. Luděk Matyska, CSc. |
| Vice-deans: | Assoc. Prof. Ing. Jan Staudek, CSc. Assoc. Prof. RNDr. Luboš Brim, CSc. Assoc. Prof. RNDr. Jan Slovák, CSc. |
| Chairman of the Academic Senate: | Assoc. Prof. PhDr. Karel Pala, CSc. |
| Secretary: | Ing. Jana Foukalová |

In 1999, five years had elapsed since the founding of the Faculty of Informatics. To commemorate this small anniversary, the Faculty officially inaugurated the recently reconstructed building on Botanická Street, with leading representatives from MU and other institutions present at the event. After five years of provisional arrangements, the Faculty has finally acquired ample premises for its activities. At the moment, there are over 5,000 square meters of utilizable floorspace, 13 lecture halls with an overall capacity of 862 seats, and a computer hall and computer classrooms with 150 computers. The overall costs of reconstruction exceeded CZK 80 million.

One of the most important events in 1999 was the awarding of doctor's degrees in informatics to Prof. C. Bennett and Prof. N. Wirth, both leading scholars in the field of informatics.

In 1999, intensive work was done on the writing up of new legal regulations of the Faculty, from the Charter of the Faculty to study and examination rules for all forms of study, as required by the new Law on Schools of Higher Education.

The academic staff of the Faculty of Informatics is actively involved in research covering areas successfully explored by projects funded by national grant agencies as well as those resulting from international co-operation. Three long-term research projects in informatics entered their first year of existence: *Nonsequential Models of Computing*, *Human-Computer Interaction*, *Dialogue Systems and Assistive Technologies*, and *Application of Computer Image Analysis in Optical Microscopy*. These projects, together with the security of information systems, are the main focus of research at the Faculty. Further research areas in which members of the Faculty are particularly active include: theoretical informatics, specification-based systems, software engineering, the methodology of programming, computer networks, electronic typesetting and desktop publishing, multimedia systems and the general impact of IT. The Faculty of Informatics was a direct recipient of a grant from the Grant Agency of the Czech Republic for in-depth research in virtual reality and two long-term grants from the Ministry of Education focusing on applications connected to natural language and communication in it, and on the processing of three-dimensional patterns of genetic information in cells. In addition, the Faculty obtained ten grants from the Grant Agency of the Czech Republic, three grants from the Higher Education Development Fund, and five other grants, including grants from abroad. The total value of grants received in 1999 was almost CZK 9 million.

Academic research work at the Faculty is closely connected with specialised research laboratories, funded mostly from research grants. In addition to the laboratories already in place (Laboratory of the Processing of Natural Languages, Human-Computer Interaction Laboratory, Laboratory of Phonetics,

Laboratory of Acoustics, and Laboratory of High-Resolution Cytometry), a new Laboratory of Parallel and Distributed Systems was opened. Besides researchers and post-graduate doctoral students, the best undergraduate students are involved in research work in these laboratories.

As is becoming a tradition, the Faculty organised the international SOFSEM conference, which ranks among the most important conferences in informatics in the Czech Republic. Another very important event organised by the Faculty was the DATASEM conference, the main national conference on database and information systems.

The Faculty organizes the weekly *Colloquium in Informatics*, where the most recent results of research and development in informatics are presented. There were lectures from 15 speakers from international institutions. Members of the Faculty of Informatics also participated in 24 significant international conferences and congresses held abroad and in 18 similar events in the Czech Republic. In September 1999, the Faculty played host to the participants of the Olympics in Informatics (CEOI), an international competition of 20 teams of secondary-school students from twenty different countries.

The Faculty of Informatics provides university-type courses which place a heavy emphasis on scientific training and theoretical foundations of the discipline. The system of study is as open as possible to students and enables them to choose subjects according to their particular interests.

At present, the Faculty offers three types of study, leading to bachelor's (*Bc.*), master's (*Mgr.*) and doctor's (*Dr.*) degrees respectively. A number of academic programmes are organized in co-operation with the Faculty of Science (particularly mathematics) while the teacher-training courses (comprising two subjects) are inter-faculty courses. Students of specialised studies major in informatics and also subscribe to a minor subject. The Faculty provides courses in informatics as the major discipline in two programmes: either in the more practical bachelor's course, or in the more demanding and theoretical master's course. Basic courses of the two programmes overlap and students can easily switch between them; last year, the scope of options available to students was further adapted to their particular needs, and new specialised bachelor's courses were introduced in some subjects. The master's courses require the completion of certain academic prerequisites at the end of the third year, at which time those students who continue with the master's course may obtain a bachelor's degree (which enables graduates to progress to higher forms of study at other institutes of higher education at home or abroad).

Special attention has been paid to post-graduate doctoral studies in informatics, which the Faculty considers very important. With the continuously increasing number of students, the Faculty endeavours to provide students with the best possible conditions for their research work. The Faculty expects its post-graduate students to present dissertations of high academic standards and to publish their work in renowned foreign journals and in reviewed almanacs.

The Faculty uses a credit system in all forms of study, which comprises a combination of obligatory courses, specialised courses, and optional courses selected in accordance with the student's own professional preferences.

The Faculty has continued to keep up its wide international contacts with numerous foreign institutions. Twenty-two Faculty members are involved in work for various committees of international conferences, boards of international professional societies (IFIP, IEEE CZ, TUG, ACM Chapter CZ, and ERCIM), and editorial boards of scientific journals. Ten members were invited to take part in study trips and lecture series abroad, while three lecturers from abroad gave courses at the Faculty of Informatics. Faculty members went on 63 trips abroad, most of which involved active participation at international conferences and seminars. The Faculty played host to 31 visitors from abroad.

Long-term co-operation in theoretical research continued last year with City University London (UK), the University of Namur (Belgium), and the Technical University of Munich (Germany). Especially successful was the co-operation with the RAL (Rutherford Appleton Laboratory, UK) involving work on the STRADIWARE project, funded under the COPERNICUS scheme. In the EU research project EuroWordNet 2 (EC Telematics), the Faculty continued to cooperate with research teams at the Universities of Amsterdam, Pisa, Sheffield, and others. The Faculty actively cooperated with Oxford University (UK) and the University of Heidelberg (Germany), in research in the area of image analysis in

cytogenetics. During 1998, Faculty members went on 70 trips abroad, of which more than 50 percent involved active participation at conferences. The Faculty played host to 23 visitors from abroad. Members of the Faculty of Informatics are also board members of IFIP, IEEE CZ, TUG (TeX User Group), ACM Chapter CZ, and ERCIM.

In 1999, faculty members published 98 works, of which 52 were published abroad and 46 in the Czech Republic. Twelve monographs were published (nine of them abroad) and 48 articles appeared in reviewed almanacs or journals monitoring their impact factor. Other works included educational and popular articles and textbooks.

Honorary Doctoral Degrees, Medals, and Other Awards

Prof. Dr. Jozef Gruska was awarded the First-Class Medal of the Minister of Education of the Czech Republic. Petr Macháček was awarded the Masaryk University Rector's Prize for excellent study results. Mgr. Robert Goliáš, Mgr. Jan Dvořák, Mgr. Antonín Rozsypal and Mgr. Jakub Mrázek were awarded the Faculty of Informatics Dean's Prize, for excellent results in their undergraduate studies.