Study Programs in English offered by the

Faculty of Information Technology



University of Pannonia

Veszprém, Hungary

Computer Science Engineering MSc

Qualification: Science Engineer
Language of instruction: English
Duration of the program: 4 semesters
Location/city of the course: Veszprém
Number of credits: 120

The aim of the program is to train participants to become highly qualified in computer science and engineering, to be able to design IT systems and devices, develop and integrate IT systems, perform and coordinate research and development activities. They are also provided with appropriate basic theoretical knowledge to continue their studies at PhD level. The program involves 4 semesters including 6 weeks of practical training and a final exam.

The first half of the compulsory training courses involve advanced subjects on information technologies (e.g., Digital Signal Processing, Cloud Programming, Advanced Database Management Systems) and mathematics (Advanced Operations Research, Numerical Analysis). In the second half of the training, it is possible to acquire partially personalized knowledge from the latest technological developments. This knowledge can be obtained as optional subjects (Robotics and Machine Vision, Industry 4.0, Embedded Smart Systems, etc.), and subjects with tailored topics are also available for dedicated students.

Full time students typically spend three days a week in the classroom, and two days with elaborating project works according to their interests - individually or in team. MSc students are regularly involved in industrial or University projects aiming at either R&D or theoretical research. Students are trained to work efficiently both at international corporations (Enterprise Networks, Enterprise Messaging Patterns), or in their own startup company (Entrepreneurship, Innovation Management).

Requirements

- BSc degree with specialisation in the chosen field, TOEFL or IELTS language certificate
- B2 language certificate (TOEFL, IELTS, graduation exam, TOEFL or IELTS language exam)

Information Science and Technology PhD

Qualification: PhD in Information Science and Technology
Language of instruction: English
Duration of the program: 8 semesters (study-research period: 1-4th semesters and research-dissertation period: further 4 semesters)
Location/city of the course: Veszprém
Number of credits: 240

The training and research program of the Doctoral School of Information Science and Technology is open to a wide field of information science and its technical applications. Topics flexibly cover the constantly changing training and research demands. The research supervisors are internationally recognised and highly appreciated professors.

The main research directions of the Doctoral School are:

(1) Image and signal processing, including image recognition, information displays, new efficient signal processing methods using sensor networks.

(2) Medical information systems: diagnostics and modelling of the brain and cardiovascular systems, analysis and synthesis of food intake, development of intelligent information systems utilizing remote diagnostics and therapeutic units.

(3) System and control theory: intelligent diagnosis of complex systems, state and parameter estimation of nonlinear and stochastic systems, advanced control methods for energy systems, system and control theory approach of smart grids.

(4) Optimisation of large-scale industrial systems and processes: developing methods and software for the analysis of complex processes and systems, for their design, optimisation and decision support.

(5) Deterministic and stochastic dynamical system models: developing new theoretical and numerical methods motivated primarily by mathematical models describing biological processes and neural networks, their applications to practical problems.

(6) Applications of combinatorics in information technology: structural and extremal study of discrete mathematical models, mainly graphs and hypergraphs, study of the algorithmical complexity of combinatorical problems, study of approximability of discrete optimisation, study of the competitive ratio of online scheduling.

Information Science and Technology PhD

The Faculty of Information Technology at the University of Pannonia offers study programs in IT and IT combined with other advanced technologies. Programs are characterised by long-term professional cooperation with prestigious international companies. The research and development activities support the educational programs and result in the continuous renewal of the curriculum.

The Faculty considers establishment of students' successful professional career as its main task by putting a special emphasis on the monitoring of students' performances, and the talent supervision program. Besides gaining up-to-date knowledge of their field, undergraduate and graduate students also become experienced in project and teamwork via practical experiences working for companies of international standards.

Throughout their years of university studies, students regularly participate in national and international contests at scientific conferences and competitions, often reaching outstanding results. Those who gain entry to our programs, by the end of their studies, become highly qualified specialists in their own professional field.

Requirements

- MSc degree in information technology, informatics, or computer science, TOEFL or IELTS language certificate in English with fluent reading and speaking skills
- a preliminary acceptance letter from a supervisor accredited at Doctoral School
- a research plan that is conform with one of the topics offered by the Doctoral School



More information:

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