I. STAFF

Professor: Prof. RNDr. Otokar Grošek, PhD.
Associate Professors: Doc. RNDr. Jaroslav Fogel, PhD., Doc. RNDr. Gabriel Juhás, PhD., Doc. RNDr. Karol Nemoga, PhD., Doc. RNDr. Frank Schindler, PhD.
Assistant Professors: Ing. Tomáš Delikát, PhD., Ing. Alexander Hambalík, PhD., Mgr. Zuzana Sevěíková, Ing. Milan Vojvoda, PhD. (Deputy Head of Dept.)
Research Workers: Ing. Fedor Lehocki
Technical Staff: Zuzana Šabíková (secretary)

II. EQUIPMENT

II.1 Teaching and Research Laboratories
- Laboratory of Security Technologies
- DIEDC - Database Information Education and Demonstration Center
- Laboratory of System Programming
- Laboratory of Medical Informatics

II.2 Special Measuring Instruments and Computers
- HP Proliant ML 150
- 2x CPU INTEL XEON 2,8 GHz
- RAM 12 GB
- HDD 35 GB
- MSDN Academic Alliance (MSDN AA) = Microsoft Developers Network Academic Alliance

III. TEACHING

III.1 Undergraduate Study (Bc.)
Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer

Algorithms and Programming (1st sem., 3-2 h) F. Schindler
Algorithms and Programming (1st sem., 3-2 h) M. Vojvoda
Department of Applied Informatics and Information Technology
Annual Report
2007

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester, Hours</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithms and Programming</td>
<td>(1st sem., 3-2 h)</td>
<td>G. Juhás</td>
</tr>
<tr>
<td>Analysis and Complexity of Algorithms</td>
<td>(5th sem., 3-1 h)</td>
<td>M. Vojvoda</td>
</tr>
<tr>
<td>Basic of Real-time Systems</td>
<td>(3rd sem., 3-2 h)</td>
<td>J. Fogel</td>
</tr>
<tr>
<td>Basic of Real-time Systems</td>
<td>(4th sem., 3-2 h)</td>
<td>J. Fogel</td>
</tr>
<tr>
<td>Classical Ciphers</td>
<td>(4th sem., 2-2 h)</td>
<td>O. Grošek</td>
</tr>
<tr>
<td>Database Systems</td>
<td>(3rd sem., 3-2 h)</td>
<td>T. Delikat</td>
</tr>
<tr>
<td>Operating Systems</td>
<td>(3rd sem., 3-2 h)</td>
<td>J. Fogel</td>
</tr>
<tr>
<td>Programming Techniques</td>
<td>(2nd sem., 3-2 h)</td>
<td>F. Schindler</td>
</tr>
<tr>
<td>Design of Database Systems</td>
<td>(4th sem., 3-1 h)</td>
<td>T. Delikat</td>
</tr>
<tr>
<td>Information Security</td>
<td>(5th sem., 3-1 h)</td>
<td>J. Šiška</td>
</tr>
<tr>
<td>Public Key Infrastructure</td>
<td>(6th sem., 3-1 h)</td>
<td>J. Šiška</td>
</tr>
<tr>
<td>Cryptography</td>
<td>(5th sem., 2-2 h)</td>
<td>O. Grošek</td>
</tr>
<tr>
<td>Fast Algorithms</td>
<td>(6th sem., 2-2 h)</td>
<td>K. Nemoga</td>
</tr>
</tbody>
</table>

### III.2 Graduate Study (Ing.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester, Hours</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security of Mobile Communications</td>
<td>(1st sem., 3-2 h)</td>
<td>M. Vojvoda</td>
</tr>
<tr>
<td>System Programming</td>
<td>(2nd sem., 3-2 h)</td>
<td>J. Fogel</td>
</tr>
<tr>
<td>Design of Block Ciphers</td>
<td>(3rd sem., 2-3 h)</td>
<td>O. Grošek</td>
</tr>
<tr>
<td>Object-Oriented Programming</td>
<td>(1st sem., 3-2 h)</td>
<td>F. Schindler</td>
</tr>
<tr>
<td>Cryptography in Computer Networks</td>
<td>(1st sem., 3-2 h)</td>
<td>K. Nemoga</td>
</tr>
<tr>
<td>Modelling and Simulations of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event Systems</td>
<td>(1st sem., 3-1 h)</td>
<td>G. Juhás</td>
</tr>
<tr>
<td>Security of Information Systems</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
in Practice                      | (1st sem., 3-1 h) | O. Grošek |

### III.3 Undergraduate and Graduate Study for Foreign Students (in English Language)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester, Hours</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithms and Programming</td>
<td>(1st sem., 3-2 h consul.)</td>
<td>M. Vojvoda</td>
</tr>
<tr>
<td>Introduction to Engineering and Technical Documentation</td>
<td>(1st sem., 2-2 h consul.)</td>
<td>P. Zajac, Z. Ševčiková</td>
</tr>
</tbody>
</table>

### III.4 Distance Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester, Hours</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithms and Programming</td>
<td>(2st sem., 3x2 h consul.)</td>
<td>T. Delikat</td>
</tr>
<tr>
<td>Algorithms and Programming</td>
<td>(1st sem., 4x2 h consul.)</td>
<td>A. Hambalík</td>
</tr>
</tbody>
</table>

### IV. RESEARCH PROJECTS

- Development and innovation of subjects for Study program of Applied Informatics fulfilling
modern demands of e-learning. ESF-JPD 3-038/2005 O. Grošek
- Modelling and Control of Distributed Processes Based on the Multi-agent Systems. G2/4148/04, J. Fogel
- ERASMUS Educational Project, Bilateral Agreement, University of La Laguna, Spain, O. Grošek
- ACUMED – innovative development program of modern study materials for medical high schools. ESF SORO/JPD3 2005/3-043, F. Lehocki
- Application of biosensors, biomaterials and biosignals in medicine. F. Lehocki
- Application of modern ICT in rehabilitation process of long-term ill children.. F. Lehocki
- Scenario based approaches for misbehaviour detection in ad hoc wireless networks (SAMANET), DAAD 7/2006, G. Juhás
- Digital Štúr Generation, Open School, Ministry of Transport and Posts No. 114, A. Hambalík
- Development and Integration of Nonlinear System Methods, VEGA 1/3089/06, M. Huba, F. Schindler
- Dominant Determinants of Engineering Pedagogy and Its task After Slovak Entering into EU, VEGA 1/2531/05, D. Driensky, A. Hambalík
- Number Theory and its Applications. G 2/4138/24, K. Nemoga
- Working Group for Gas Dynamics, ESF – JPD 3 2005/1312020003701, K. Nemoga
- Use of IKT in Teaching – Functional Literacy of Pedagogical Employees in Information Technologies, ESF-JPD 3, Priority 2, Step 2.1, Code 13120120283, A. Hambalík

V. COOPERATION

V.1 Cooperation in Slovakia

- Mathematical Institute, Slovak Academy of Sciences, Bratislava
- National Security Authority, Bratislava
- Micronic, Ltd. Košice
- Institute of Forensic Science of Police Corps, Bratislava
- Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava
- Association of the Infovek Project, Ministry of Education of the Slovak Republic – Project of Informatization of Regional School – PIRŠ
- Slovak Research and Development Agency, Bratislava
- Technical University, Žilina
- J. Selye University, Komárno
- Bratislava Metodical and Pedagogical Centre
- Trenčín Metodical and Pedagogical Centre
- Virtual Academy of Bratislava Self-governing region
- University of Constantin the Philosopher, Nitra
- Department of Engineering Pedagogy and Psychology, MtF STU Trencin
- Ministry of Finance of the SR

V.2 International Cooperation

- Institute of Informatics, Academy of Sciences of the Czech Republic, Prague, CzR
- University of LA LAGUNA, Department of Statistics, Operations Research and Computing, Tenerife, Spain
V.3 Membership in International Organizations and Societies

- AMS – American Mathematical Society (O.Grošek)
- SIAM – Society for Industrial and Applied Mathematics (O.Grošek)
- IEEE Computer Society (F.Schindler)
- IEEE Computer Society (J.Fogel)
- Union of Czech Mathematicians and Physicists (F.Schindler)
- Slovak Society for Cybernetics and Informatics (F. Schindler)
- Slovak Society for Informatics (F. Schindler)
- Union of Slovak Mathematicians and Physicists (F. Schindler)
- The European Association for the Transfer of Technologies, Innovation and Industrial Information (F. Lehocki)

Membership in Editorial Boards of International Journals

- Tatra Mountains Mathematical Publications, O. Grošek
- Tatra Mountains Mathematical Publications, K. Nemoga – managing editor
- Zentralblatt Math, K. Nemoga, managing editor of Slovak Unit
- Atlantic Journal of Mathematical Cryptology, O. Grošek
- Transactions on Petri Nets and Other Models of Concurrency, G. Juhás

VI. THESES

none

VII. OTHER ACTIVITIES

- Seminar Crypto (O. Grošek)
- Reviewer of Mathematical Reviews and for ZentralblattMath (O.Grošek)
- Reviewer of ZentralblattMath (O. Grošek, K. Nemoga)
VIII. PUBLICATIONS

VIII.1 Journals


VIII.2 Conference Proceedings


VIII.3 Textbook