

## WEDNESDAY October 5, 2011

07:30 – 09:00	<b>Breakfast</b>
08:15 – 09:15	<b>Registration of the participants</b>
09:15 – 09:45	<b>Opening of the Conference (Big Hall)</b>
09:45 – 10:15	<b>Invited Talk: GPU-based High-Performance Computing in Science and Engineering (Prof. Eng. Ivan Plander, DrSc.)</b>
10:15 – 10:40	<b>Coffee break</b>
10:40 – 12:00	<b>Talks in sessions:</b> <b>Information and Communication Technologies in the Armed Forces (Big Hall)</b> <b>Signal Processing I (Small Hall)</b>
12:00 – 12:20	<b>Conference partner presentation (CSBC spol. s r.o.) (Big Hall)</b>
12:30 – 13:30	<b>Lunch</b>
14:00 – 15:40	<b>Talks in sessions:</b> <b>Information Systems and Information Processing I (Big Hall)</b> <b>Communication Technologies and Systems I (Small Hall)</b>
15:40 – 16:00	<b>Conference partner presentation (Epson Europe) (Big Hall)</b>
18:00	<b>Dinner</b>

### Talks in sessions

#### Information and Communication Technologies in the Armed Forces (Big Hall)

**Chairperson: Assoc. Prof. Eng. Pavel Nečas, PhD.**

10:40 - 11:00	Development and Deployment of the KMS in the ACR (Ladislav Buřita)
11:00 - 11:20	Offline Command and Control System (Jan Hodicky, Petr Frantis)
11:20 - 11:40	Network Intruder Detection Test Bed Using IDS and HoneyPot (Július Baráth)
11:40 - 12:00	Simulation of QoS mechanisms in tactical system STORCZYK 2010 (Szymon Kaćik, Mateusz Michalski, Krzysztof Zubel)

#### Signal Processing I (Small Hall)

**Chairperson: Assoc. Prof. Eng. Peter Fuchs, CSc.**

10:40 - 11:00	Transmission Characteristics of two Connected Human Bodies (Petr Kopeček)
11:00 - 11:20	Theory and Use of PN Sequences in Communication Systems (Peter Olšovský, Peter Podhoranský, Peter Fuchs, Vladimír Štofanič)
11:20 - 11:40	Measurement and Evaluation of Electromagnetic Radiation of Communication and Information Devices (Jan Ochodnický, Zdeněk Matousek, Rudolf Matejčík)
11:40 - 12:00	Plasma Jets System (Tomáš Mazúrek)

#### Information Systems and Information Processing I (Big Hall)

**Chairperson: Assoc. Prof. Eng. Marcel Harakal, PhD.**

14:00 - 14:20	Information System for Scientific Information Division (Vojtech Ondryhal, Michal Trunda)
14:20 - 14:40	E-Learning Usage for the Development of Algorithmic Thinking (Miroslav Hrubý)
14:40 - 15:00	Domain-Specific Languages and Multilingual Support (Lubomír Dederá)
15:00 - 15:20	Some Problems with Table Fragmentation in Distributed Databases (Lubomír Semančík, Lubomír Dederá, Lubomír Mulinka)

#### Communication Technologies and Systems (Small Hall)

**Chairperson: Assoc. Prof. Eng. Martin Marko, CSc.**

14:00 – 14:20	Possibilities of Using a Frequency Broker in Radio Data Assignment Process for Combat Radios (Marek SUCHAŇSKI, Paweł KANIEWSKI, Robert MATYSZKIEL, Adam WORONOWICZ)
14:20 – 14:40	Comparison of Deterministic Fingerprinting Localization Algorithms (Juraj Machaj, Peter Brida, Jan Duha)
14:40 – 15:00	The Impact of the Operational Characteristics on the RFID readability (Juraj Vaculík, Jiří Tengler)

15:00 – 15:20	A Performance Study of the Multi-Interface Wireless Mesh Networks for Different Network Topologies (Štefan Pollák, Vladimír Wieser)
15:20 – 15:40	Optical Inter-Satellite Communication Systems (Markéta Vršecká)

## THURSDAY October 6, 2011

07:30 – 08:20	<b>Breakfast</b>
08:20 – 08:40	<b>Conference partner presentation (Lynx) (Big Hall)</b>
08:40 – 10:00	<b>Talks in sessions:</b> <b>Information Systems and Information Processing II (Big Hall)</b> <b>Modeling and Simulation (Small Hall)</b>
10:00 – 10:30	<b>Coffee break</b>
10:30 – 12:10	<b>Talks in sessions:</b> <b>Networks and Security (Big Hall)</b> <b>Signal Processing II (Small Hall)</b>
12:10 – 12:30	<b>Conference partner presentation (Tempest) (Big Hall)</b>
12:30 – 13:30	<b>Lunch</b>
14:00 – 18:00	<b>Sport and recreational activities – individual or organized</b>
19:00	<b>Reception (Big Hall)</b>

### Talks in sessions

#### Information Systems and Information Processing II (Big Hall)

**Chairperson: Assoc. Prof. RNDr. Lubomír Dederá, PhD.**

08:40 – 9:00	Neural Networks in the Information Retrieval Area (Lenka Skovajsová, Igor Mokriš)
09:00 – 9:20	Fundamentals of Speech Recognition Using Pulse Coupled Neural Networks (Radoslav Forgáč)
09:20 – 9:40	Clustering Algorithms for High Dimensional Data (Roman Krakovský, Igor Mokriš)
09:40 – 10:00	Algorithms for Soft Document Clustering (Michal Rojček, Igor Mokriš)

#### Modeling and Simulation (Small Hall)

**Chairperson: Prof. Eng. Miroslav Liška, CSc.**

08:40 – 9:00	Simulation Technology as the Appropriate Tool for Air Traffic Flow Capacity Solutions (Miloslav Bauer, Dana Brhelová)
09:00 – 9:20	Simulation Processes in the Air Combat (Miroslav Žák, Pavel Bučka)
09:20 – 9:40	New trends in modeling and simulation in military applications (Michal Turčaník)

#### Networks and Security (Big Hall)

**Chairperson: Assoc. Prof. Eng. Ján Jakubek, CSc.**

10:30 – 10:50	Teaching of the CyberSecurity at the University of Defence (Petr Hrůza)
10:50 – 11:10	NetFlow and Security Monitoring in Czech Armed Forces (Josef Kaderka)
11:10 – 11:30	Message Authentication for Authenticated Encryption Scheme (Rafał Gliwa, Wojciech Oszywa)
11:30 – 11:50	Evaluation of the Multimetric Proactive Routing Protocol Implementation for Mobile Ad-Hoc Networks (Jaroslav Krygier, Mariusz Bednarczyk, Krzysztof Maślanka)
11:50 – 12:10	Addressing of Security Risks of Freeware VoIP Asterisk Office (Zuzana Vranova, Antonín Mazalek)

#### Signal Processing II (Small Hall)

**Chairperson: Prof. Eng. Jozef Štulrajter, CSc.**

10:30 – 10:50	Signal Processing Labs Based on USB Measuring Devices (Viera Biolková, Zdeněk Kolka, Dalibor Bišek, Karel Hajek)
10:50 – 11:10	Hardware-in-the-Loop Simulation Model of Microturbine Unit (Zdeněk Kolka, Viera Biolková, Dalibor Bišek)
11:10 – 11:30	Computer-Aided AC analysis of linear systems with external switching (Dalibor Bišek, Viera Biolková, Zdeněk Kolka, Vladislav Pech)

11:30 –11:50 Statistical Model of Blind-Oversampling Data Recovery with Probabilistic Domain Selection (Zdenek Kolka, Michal Kubicek, Dalibor Biolek, Viera Biolková, Vaclav Zeman)  
 11:50 –12:10 External control and display panels for radar gun (velocity meter) (Tomáš Vachutka, František Dvořáček)

## FRIDAY October 7, 2011

07:30 – 08:30 **Breakfast**  
 08:40 – 10:40 **Talks in sessions:**  
**Information and Communication Technologies and Systems (Big Hall)**  
 10:40 – 11:00 **Coffee break**  
 11:00 – 11:30 **Closing of the Conference (Big Hall)**  
 12:00 **Lunch**

### Talks in sessions

#### Information and Communication Technologies and Systems (Big Hall)

**Chairperson: Assoc. Prof. RNDr. Ľubomír Dederá, PhD.**

08:40 – 09:00 Prospective methods and options to optimize routing in AD-Hoc networks (Martin Droppa, Marcel Harakal)  
 09:00 – 09:20 A Proposal of IPv6 deployment in the Armed Forces Academy (Július Baráth)  
 09:20 – 09:40 WiMAX physical layer vulnerability (František Nebus, Marián Babjak, Martin Marko)  
 09:40 – 10:00 Memory partitions and access patterns used for optimization of GPU processing (Miloš Očkay)  
 10:00 – 10:20 Selected aspects of combat radio nets modernization (Marián Babjak, Martin Marko)  
 10:20 – 10:40 Rapidly Deployable Tactical Communication System COMTANET (Milan Gottstein, Marián Babjak)

## Conference Partners



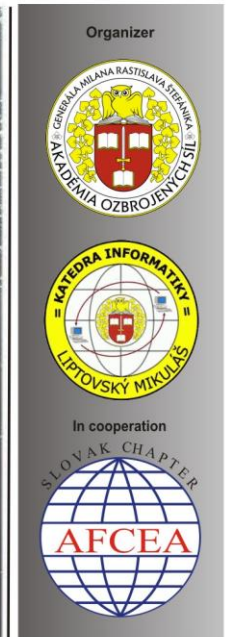
**EPSON**

**GAMO**  
INFORMAČNÉ TECHNOLOGIE

**s&t**

**Tempest**  
IT makes sense

# COMMUNICATION AND INFORMATION TECHNOLOGIES



6th International Scientific Conference

HOTEL TATRANSKÉ ZRUBY, Starý Smokovec



5. - 7. 10. 2011

**CONFERENCE PROGRAMME**