

FIM - Professional and Research Profile

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Contents

- Where are we from?
- ICT study programmes
- Research activities
- = Faculty & IQRF



WHERE ARE WE FROM?

Hradec Králové

- Regional city of East Bohemia
- University town
- Three public universities
- More than 10k students
- City of Biomedical Research

FIM UHK

- Founded in 1993
- Approx. 2000 students







Applied Informatics Information (and Knowledge) Management

- Both programmes offer B.Sc. M.Sc. and Ph.D. degrees
- They follow main research areas of faculty



- Intelligent Systems and Approaches for Managerial and Other Human Activities Support (ISYS)
- 2. Smart Solutions in Ubiquitous Computing (SMART)
- 3. Cognitive Processes and their Advanced ICT Support (COGN)

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1. ISYS - TOPICS

- Ambient Assisted Living
- Ambient Intelligence and Smart Environments
- Artificial Intelligence and Knowledge-Based Systems
- Autonomous Systems for Decision Support
- Computer Networks and Security
- Decision Support Systems
- Information Management
- Intelligent Autonomous Systems
- Knowledge Management
- Mathematical Methods for Decision Support and Optimization
- Multi-Agent Systems, Agent-Based Models, and Applications
- Smart Offices and Other Workplaces
- Social, Economic, and Ethical Implications of Advanced Technologies
- Systems Theory, Systems Engineering, and Systems Dynamics
- Wireless Sensor Networks Applications





2. SMART - TOPICS

- Processing of data from Smart Sensors as part of an Smart Environment
- User centric adaptivity in Mobile Intelligent
 Information Systems



- Innovative architectures and infrastructures of Smart Systems
- Supportive modeling methodologies and notations for Smart environments
- Advanced Computational Techniques of Smart Systems
- Smart e-health and Bio-Telemetry solutions for Mobile Intelligent Information Systems
- Smart Solutions using Geographic Information Systems (GIS) in Mobile Information Systems
- Location based services supporting Smart Solutions
- = Smart cloud



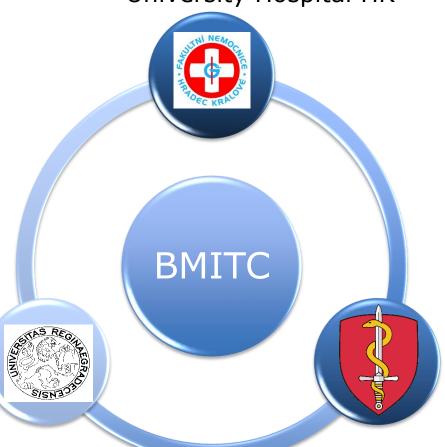
3. COGN - TOPICS

- = eLearning
- Cognitive maps
- ICT-Supported Cognitive Training
- Persuasive Learning Objects and Technologies
- Social Networks
- = Role of Games in the Process of Knowledge Transfer
- Using ICT Support for Individualization of Educational Process
- Use of Artificial Intelligence Approaches in Human Behaviour Modelling



BIOMEDICAL – IT CENTER (BMITC)

University Hospital HK



Faculty of Science UHK
Faculty of Informactics and
Managment UHK

Faculty of Military Health Sciences



Research topics

- Artificial Neural Networks
- = Cloud Medicine
- = Medical Databases
- = Medical devices
- = Smart solutions in Medicine
- = Economy of BioMedicine
- = Image recognition
- Sensors and Biosensors
- = IT for hospitals, etc.



Module Smart Solutions

- Master level subject
- Introduction to IQRF
- Individual student projects
- Smart wireless sensors
- Prototype design and implementation



Thanks for your attention

We are open to any kind of kooperation tomas.kozel@uhk.cz

