„Tools and methodologies, definitions and strategies for privacy by design for surveillance technologies, including ICT systems"

Polisch Science Contact Agency (PolSCA)

22nd November 2011 - Bruxelles
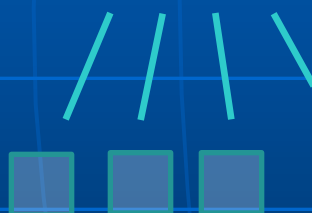
Structure - where is my Institiute

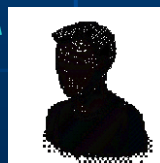**Military University of Technology (MUT), Warsaw**
www.wat.edu.pl

Cybernetics Faculty
www.wcy.wat.edu.pl

Information and Computer Systems Institute
www.isi.wat.edu.pl

Maciej Kiedrowicz, Ph.D

maciej.kiedrowicz@wat.edu.pl

MUT in numbers

Military University of Technology (MUT)

89 Prof., 85 Ass.Prof., 399 Ph.D.

155 fully equipped lecture halls (for 6000 attendees)
235 laboratory rooms

Cybernetics Faculty

44 Prof. & Ass.Prof., 121 Ph.D.

Information and Computer Systems Institute

11 Prof. & Ass.Prof., 23 Ph.D.

More details on Cybernetics Faculty (1/3)

Specializations:

- Command and Control Systems
- Computer Engineering
- Computer Systems for Management
- Cryptology and Cryptography
- Information Systems
- Multimedia Systems
- Teleinformatics Networks

- Computer Aided Management

- National Security

Competence areas:

- Computer Systems Design, Development and Protection
- Operations Research and Computer Decision Support Systems
- Battlefield Modelling and Simulation
- Artificial Intelligence and Expert Systems
- National Security
- Cryptology

Research Staff:

44 Prof. & Ass.Prof., 121 Ph.D.

Applications of Computer Systems:

- Computer systems design and development
- Simulations and artificial intelligence
- Heterogeneous distributed simulations systems
- Virtual reality and computer vision
- Computer systems protection
- Cryptology (incl. developing of certain encryption patterns for commercial purposes)
- Operations research and computer decision support systems
- Computer-based military contingency planning (incl. threat assessment procedures)

**Institute
of Information and Computer Systems**

Our Partners

Institute collaborates with many technology and equipment providers based on Academic Partner Programs and Academic Initiatives

Key results:

- Well equipped labs and computer-based trainings

- Innovative, productive tools

- Knowledgeable and competent team

Building consortia we cooperate with:

- Military Institut of Medicine (Warsaw, Poland)
- Military Institute of Higiene and Epidemiology (Warsaw, Poland)
- MUT Institutes (mainly Institut of Nuclear Technology, Institute of Technical Physics, Institute of Chemistry)
- Centre of Molecular and Macromolecular Studies, Polish Academy of Science
- TNO Holland (independent research organisation),
- Cassidian France - EADS Defence and Security Subsidiary,
- Norwegian Defence Research Establishment (FFI),
- VTT Technical Research Center (Finland);
- ITTI (consulting company, Poland),
- Tallinn University of Technology (Estonia),
- Warsaw University of Technology (Warsaw, Poland)
- Warsaw University of Life Sciences (Warsaw, Poland)
- University of Information Technology and Management (Rzeszow, Poland)

Institute
of Information and Computer Systems

Our Projects

Institute of Information and Computer Systems

Governmental research projects and implementations:

- Designing
  - *Simulation Based Operational Training Support System „Zlocien"*
- Putting into practice
  - *Simulation Based Operational Training Support System "Zlocien"* in The War Games and Simulation Center in Warsaw
- Research and Development Project:
  - Automatic Tools for Decision Support – Expert System "GURU"

Professional skills required:

- System Modeling
- Project Managment
- Business Analysis
- System analysis and design
- Application System modeling and design
- Simulation models

Tools: almost full set of tools

Institute of Information and Computer Systems

Governmental research projects and practical implementations:

- Models of Urban Agglomeration Threats and Crisis Management System Based on Warsaw Example,
- Monitoring, identification and counteracting threats to citizen security,
- Advanced Methods And Techniques Of Raising Situational Awareness In Network Enabled Capabilities,
- Integration of Command and Control Systems,
- Combat simulation in heterogeneous environment of multiresolution and distributed simulation,
- Reconfigurable nanofotonics systems for secure fibre-optics communications,
    (interdisciplinary project – solid-state physics, nonoscience, telecomunication)
- Highway to Security: Interoperability for Situation Awareness and Crisis Management.

Institute of Information and Computer Systems

Other research works:

- The specific simulator (NETMOB) for survivability, accessibility and utilization of Polish C3 systems assessment;
- The applications for threat assessment and armed conflicts analysis (works for Department of International Security);
- Tools for Early Warning Identification of Terrorist Activities (with Polish as a leadership NATO MSG 026);

Key State Registers in Poland

- * Central Electronic System of Citizens (Citizen Register)
- * Central Register of ID-cards,
- * Central Register of Passports,
- Central Register of Public Certificates
- Central Register of Vehicles and Drivers

- **... and ePUAP**
  Electronic Platform for Public Administration Services

Modernisation of Citizen Register – Pesel2 Project EU

Partial Goal:
- Registry services
- Process patterns for standarised service flow with registry services

Results:
- Unified event model of citizen activities
- Reference processes for life-event handling
- Standarised flow management

ID-Card

- ID-Card Services
- Usage of microprocessor

Biometric Passport

- Biometric
- Usage of microprocessor

Ministry of Interior and Administration
Department Register's Development (2005-2008)

Main issue !

SECURITY

ACCESS

Possibilities and Usage

State registers System

Healthcare System

Personal Data Security

Public Certificates

Pension System

Business System

Court System

Border Guard System

Banking System

. . . SYSTEMS . . .

18

Thank you for your attention !

Military University of Technology
Cybernetics Faculty
Information & Computer Systems Institute
maciej.kiedrowicz@wat.edu.pl