

# **FSE UNIZA**

Faculty of Security Engineering University of Zilina





#### www.fbi.uniza.sk

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### **University of Zilina**

- The origin of the today's University of Zilina goes back to 1953 in Prague.
- It was established as the College of Railway Engineering in Prague and moved to Zilina in 1959.
- It has seven faculties and 10 institutes and centres.
- Primarily it is technically and technologically oriented but also offers economic and humanities education.





### **University of Zilina Faculties**

- Faculty of Operation and Economics of Transport and Communications (FOETC)
- Faculty of Mechanical Engineering (FME)
- Faculty of Electrical Engineering (FEE)
- Faculty of Civil Engineering (FCE)
- Faculty of Management Science and Informatics (FMSI)
- Faculty of Security Engineering (FSE)
- Faculty of Humanities (FH)



### **University of Zilina Institutes**

- Institute of Lifelong Education
- Centre for Teacher Training
- Institute of Forensic Engineering
- Institute of Information and Communication Technologies
- Institute of Competitiveness and Innovations
- Institute of High Mountain Biology
- Aviation Training and Educational Centre
- CETRA (Centre for Transportation Research)
- University Library
- Institute of Physical Education



### **Studies at University of Zilina**

Three levels of degree study programmes are offered:

- Bachelor study programme (3 to 4 years)
- Master study programme (2 years)
- PhD. study programme (3 to 5 years)
- Students: full time (9 500 students) part time (3 500 students)





# University Science Park & Research Centre















### **Relevant research projects**

- ECOROAD: Effective and COordinated ROAD infrastructure Safety operations (Horizon 2020) till 2016 (FCE) - tunnel audit, tunnel inspection, safety management
- Security related composite materials exploration by computational simulations (NATO Emerging Security Challenges Division, SPS Programme) (FMSI) - joint project with Australian National University, CIMNE, Poznan University of Technology, Technical University of Ostrava





# **FSE UNIZA**

#### Faculty of Security Engineering University of Zilina

Preparing experts for dealing with crises and emergencies in all sectors of business, industry and environment!





# **FSE UNIZA**

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### **STUDIES AND EDUCATION**

### Study programmes at FSE

FSE is focused on technology and management aspects of security and safety.

#### Study programmes at FSE UNIZA:

Security Management Security and Protection of Critical Infrastructure Crisis Management Rescue Services



FSE UNIZA implemented a number of LLL courses complementing the Bachelor- and Master-level courses taught, reflecting on the specific needs of the industry and government.



### **Departmens and FSE in numbers**

#### **Departments at FSE:**

Department of Security Management Department of Crisis Management Department of Fire Engineering Dept. of Technical Sciences and Informatics

#### FSE UNIZA in numbers (2016)

- 47 faculty staff
- 5 researchers
- 39 Ph.D. students
- 362 students at Masters level
- 568 students at Bachelor level







### **Contact for Education**

Vice-dean for Education: **assoc. prof. Eva Sventekova, PhD.** eva.sventekova@fbi.uniza.sk +421 41 513 6602







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### SCIENCE AND RESEARCH



### **Department research profiles**

#### **Department of Security Management**

is involved with development of persons and property protection, primarily in the technical and technological areas. Alongside technical reasearch, managerial and societal aspects of security are investigated.

#### **Department of Crisis Management**

focuses primarily on the theory of crisis management, dealing with crisis events and clarification of their economic, social, psychological and other aspects. Furthermore, government-related topics of crisis management are integral part of department research.







### **Department research profiles**

#### **Department of Fire Engineering**

research activities include organisational and technical aspects of fire safety, fire engineering, fire safety and prevention of technological processes, fire-fighting equipment, integrated rescue system and rescue services management.

#### **Dept. of Technical Sciences and Informatics**

is focused primarily on topics relevant to the protection of critical infrastructure elements, primarily in the energetics and transport.







### **Research facilities**

## Laboratory for modelling and simulation of crisis phenomena

The objective of the laboratory is to create a virtual environment enabling to improve the quality of training and efficiency of decision-making in crisis management, increase mental endurance of emergency managers working under constant stress, model and simulate crisis phenomena in social, technical, technological and natural environments, collection, processing and evaluation gathered data, and increase the efficiency and reliability of the decision-making of the human factor.





### **Research facilities**

#### **Critical Infrastructure and Facility Protection Systems Research Laboratory**

The laboratory offers research possibilities in the field of protection of critical infrastructure elements with emphasis on research methods and tools for assessment of technical efficiency and system reliability of property protection. It is possible to simulate real-world operating conditions of technical elements of the control and safety features of intelligent protection and security systems.



#### **Department of Security and Safety Research**

The role of the department is to participate in the preparation and realisation phases of faculty- and university-level research, development and education projects dealing with one or multiple faculty research focus areas.



### **Research facilities**

#### **Fire & Chemistry Laboratory**

is a facility for small-scale fire testing including reaction-to-fire tests, determination of selected physical, chemical and fire properties of solid and liquid combustibles, analysis of behaviour of combustibles exposed to thermal stress and flame, and efficacy analysis of liquid hazardous substances neutralisation agents and sorbents.



#### Laboratory of Security Engineering

is used for training and research of selected special subjects (Perimeter Protection, Security System Design, Interior Protection, Mechanical Barriers) and students get acquainted with the elements of security systems, information, signal and controlling systems, in a practical way.





### International research projects



**RAIN – FP7** - Risk Analysis of Infrastructure Networks in Response to Extreme Weather



**COBACORE – FP7** - Community-Based Comprehensive Recovery



**CIPAC - DG Home Affairs** - Critical Infrastructure Protection Against Chemical Attack



**ERADIATE - FP7-REGPOT** - Enhancing Research and innovAtion dimension of the University of Zilina in intelligent transport systems



**SALIANT – FP7** - Selective Antibodies Limited Immuno Assay Novel Technology



**FIREFF -** R&D Agency - Model for evaluation of fire protection measures economic efficiency

**ESF** – University Science Park and Research Centre

**MoPoRi** – R&D Agency - Model for Complex Risk Assessment of Industrial Processes

**KDI -** R&D Agency – Protection of Transportation Critical Infrastructure



### Contacts

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# Thank you for your attention!

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