

*Date: JULY 2<sup>ND</sup>, 2018* 

Place: OHRID, FYR MACEDONIA

# Knowledge FOr Resilient soCiEty

## **TEXT BOOK**

CONSORTIUM MEETING, STUDY VISIT AND TRAINING Ss. Cyril and Methodius University of Skopje

University of Novi Sad

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#### 6 textbooks by PA published

Thematic of the textbooks will be according to interdisciplinary nature of the DRM&FSE field and partners will decide its content in training and consultations.

University of Novi Sad, Faculty of Technical Sciences text book proposal

Publisher: Faculty of Technical Sciences

Edition: Technical Sciences – Textbooks (in Serbian)

Rule on publishing – 2 reviewers





## 1. TITLE: Evacuation calculation and modelling Authors (UNS): M. Laban, S. Draganić, +2

#### Content- first draft:

Evacuation – basic concepts and definitions

Evacuation decision making and human behaviour in fire

**Egress strategies** 

**Evacuation stages** 

**Evacuation corridors** 

Evacuation walking speed

Evacuation of woulnerable groups

Calculation of evacuation

Computer modelling of evacuation

Evacuation drills, calculation of time, periodical repetition of drills Evacuation plans

Calculation occupancy - the maximum number of people who need to be evacuated.

Co-funded by the



Erasmus+ Programme of the European Union



### 2. TITLE:

RISK INFORMED DECISION SUPPORT IN MANAGEMENT OF NATURAL HAZARDS Authors (UNS): M. Laban, S. Draganić

On the characteristics and significance of natural hazards

On the nature of natural hazards

Global/local significance of natural hazards

The management context

Decision maker(s) and preferences

**Stakeholders** 

Boundary conditions for risk management (time/space, budgets, etc)

General objectives and metrics

Strategic, operational and tactical risk management and measures

Decision making subject to uncertainty

Probability and modeling of uncertainty

Bayesian decision analyses

Value of Information





Systems in the context of natural hazards risk

management

Geo-hazard systems

Social/governance systems

Antropological systems

**Environmental systems** 

Structures and infrastructure systems

Systems of systems

Representation of systems

Modeling of scenarios of consequences

Scale and detail

Generic representations

**Indicators** 

Systems performance indicators

- Risk, vulnerability, robustness and resilience

System analysis techniques

Simulation techniques

FORM/SORM

**Bayesian Probabilistic Nets** 

Optimization

Cost-benefit analysis

Life safety

**Environment** 

Robustness and resilience

Communication

Risk perception

Communication and communication protocols

**Applications** 

Earthquake

Flood

Landslide and rockfall

Volcanic eruption

Storm surge

**Avalanches** 

Strong wind

Wildfires





## 3. TITLE: Fire Safety in Buildings

## Authors (UNS): M. Laban, V. Bulatović, S. Praganić

**??** Fire sa

Fire safety engineering

Design concerns

Control of ignition

Control of flammability

Control of growth of fire

Fire safety management

Means of escape

Evacuation calculation and modeling

Detection and control of the fire

Fire detection

Smoke control

Fire-fighting systems

Compartmentation

Fire spread between structures

Structure collapse

Fire precautions during construction and maintenance

Fire protection active measures

Fire protection passive measures

Properties of materials at elevated temperatures





## Interested coauthors from other HEIs? Oportunities:

Publish the same book in ENG / SRB / BiH / ALB
We will exchange the knowledge and expirience
The lecture papers could be adjasted to book chapters
We can save the time and split the job

UBL, VTSNS and UNS – share the same language UTZ could easely adjust the book to BiH language UBL, VTSNS and UNS could easily adjust BiH to SRB EPOKA and UT – could contribute in ENG We can translate to ENG chapters written in SRB/BiH UT and EPOKA could translate ENG to ALB

PROPOSAL – 6 BOOKS, 1 PUBLISHED BY EACH HEI IN FACT - ONLY 2 OR 3 DIFERENT BOOKS





#### **DEADLINE FOR PUBLISHING THE TEXTBOOKS?**

ACCORDING TO PROJECT PLAN: OCTOBER 2018 - UNREAL

PROPOSAL: UNS – MARCH 2019

VTSNS - ?

UBL - ?

UTZ -?

UT - ?

EPOKA - ?





### **TEXTBOOK WORKING GROUPS?**

**WE WILL PREPARE 2 OR 3 DIFERENT BOOKS?** 

**BOOK TITLES?** 

**WG 1 MEMBERS?** 

**WG 2 MEMBERS?** 

WG 3 MEMBERS?





Contact info about the presenter: Mirjana Laban mlaban@uns.ac.rs

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