

Date: Jun 26, 2019

Place: Banja Luka

# Knowledge FOr Resilient soCiEty

#### **TEXT BOOK – FIRE SAFETY IN BUILDINGS**

University of Tuzla
University of Novi Sad
University of Banja Luka





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## TITLE: Fire Safety in Buildings Initial table of content and institutions

Chapters	Selected Topics	Institutions (proposal)
Introduction	Fire prevention history in WBC Overview of Fire Statistics in WBC	The Editors
Section 1: Fire Safety Engineering		
1. Design Concerns, introduction		
	Control of flammability	
2. Control of ignition	Control of growth of fire	
	Fire safety management	
	Fire spread between structures	
3. Fire protection passive measures	Compartmentation	
	Fire Barriers	UNTZ
	Fire detection	
4. Fire protection active measures	Smoke control	
	Fire-fighting systems	
	Occupancy and exit capacity	
5. Means of Escape	Travel distances and times	
	Minimum fire protection measures	









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Section 2: Fire Safety Building Analysis		
1. Introduction		The Editors
1. Short overview of buildings and settlements in WBC	History of Settlements' development Building Typology Typology of construction technology	UNS
2. Properties of materials at elevated temperatures	CPR Brick Concrete Steel Wood Plastics	UNBL/UNS
3. Fire Resistance of Structures	Structure collapse Eurocodes – structural fire design Fire load calculation methods	UNBL/UNS









#### **Section 3: Tools for Fire Risk assessment and management**

1. Introduction		The Editors
2. Risk identification	Fire hazard and risk Exposure to fire risk Fire risk prevention and mitigation	
3. Social Vulnerability and impact analysis	Vulnerability of structures Social vulnerability	
4. Qualitative Fire risk assessment	Risk Matrix Event-Tree Method	UNS
5. Quantitative Fire risk assessment	Risk Matrix Event-Tree Method	
6. Evacuation calculation and modelling	PyroSim Pathfinder	









#### **Section 4: Perspective on Fire Risk Management in the Balkans**

Section 4. Ferspective on the hisk Management in the Balkans			
1. Serbia	Actual practice Legislation Case studies	UNS/VTSNS	
2. Bosnia and Herzegovina		UBL/UTZ	
3. Albania ????		UT/EPOKA	
4. Montenegro ???		UM/UkiM	
5. Macedonia ???		UKiM/UM	
Section 5: Concluding remarks			
1. FS in the Balkans and beyond –			
A comparative Overview and		The Editors	
Recommendations			









#### TEXTBOOK TITLE: Fire Safety in Buildings

- 28th February 2019 UNTZ sent first draft (Section 1 and Section 4 - National Chapter) to UNS and UNBL
- 27th May 2019 UNS sent first draft to UNTZ (part of Section 2)
- What have been done so far?
  - ✓ Section 1 completed
  - ✓ Section 2 partial
  - ✓ Section 3 unknown
  - ✓ Section 4 partial
  - ✓ Section 5 concluding remarks









## University of Tuzla: first draft sent to UNS and UNBL in local language on 28th Feb 2019.

Chapters	Selected Topics	Authors
Introduction	Fire prevention history in WBC Overview of Fire Statistics in WBC	The Editors
Section 1: Fire Safety Engineering		
1. Design Concerns, introduction		
	Control of flammability	
2. Control of ignition	Control of growth of fire	
	Fire safety management	
	Fire spread between structures	
3. Fire protection passive measures	Compartmentation	Edisa Nukic
	Fire Barriers	Jelena Markovic
	Fire detection	Jelena Iviai kovic
4. Fire protection active measures	Smoke control	
	Fire-fighting systems	
	Occupancy and exit capacity	
5. Means of Escape	Travel distances and times	
	Minimum fire protection measures	









## University of Novi Sad – first draft 27.05.2019. sent to UNTZ – in english language

Section 2: Fire Safety Building Analysis		
Introduction		The Editors
1. Short overview of buildings and settlements in WBC	History of Settlements' development Building Typology Typology of construction technology	UNS
2. Properties of materials at elevated temperatures	Introduction Materials properties at elevated temperatures Concrete Steel Reinforcement Masonry Timber Aluminium Plastics and plastic-based composites Gypsum Glass	Vesna Bulatovic – completed on 27th May 2019
3. Fire Resistance of Structures	Structure collapse Eurocodes – structural fire design Fire load calculation methods	UKIM ?









Section 3: Tools for Fire Risk assessment and management		
1. Introduction		The Editors
2. Risk identification	Fire hazard and risk Exposure to fire risk Fire risk prevention and mitigation	
3. Social Vulnerability and impact analysis	Vulnerability of structures Social vulnerability	
4. Qualitative Fire risk assessment	Risk Matrix Event-Tree Method	UNS
5. Quantitative Fire risk assessment	Risk Matrix Event-Tree Method	
6. Evacuation calculation and modelling	PyroSim Pathfinder	





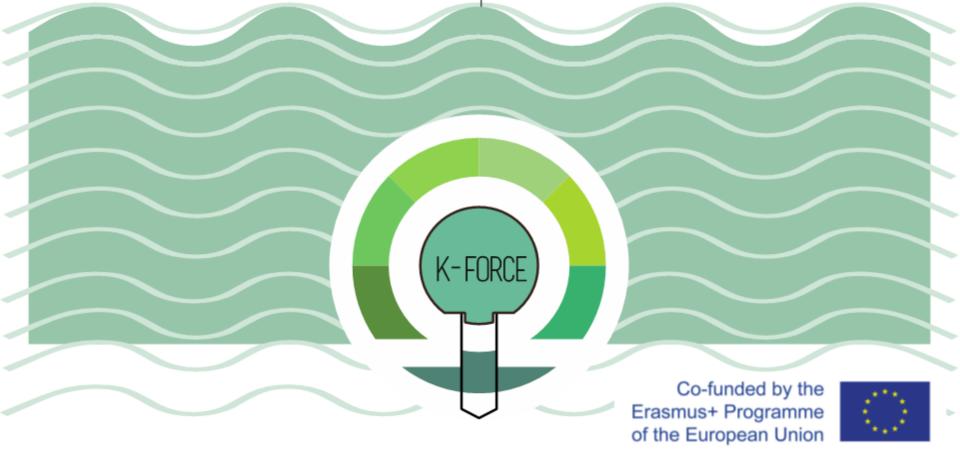




Section 4: Perspective on Fire Risk Management in the Balkans		
1. Serbia		UNS/VTSNS
2. Bosnia and Herzegovina	Actual practice Legislation	UBL/UTZ – completed (local language)
3. Albania ????	Case studies	UT/EPOKA ?
4. Montenegro ???		UM/UKIM ?
5. Macedonia ???		UKiM/UM?
Section 5: Concluding remarks		
<ol> <li>FS in the Balkans and beyond –</li> <li>A comparative Overview and Recommendations</li> </ol>		The Editors







# Thank you for your attention

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