

Date: May 29, 2019

Place: Tuzla

# 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		









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	UNS
3. Social Vulnerability and impact analysis	Vulnerability of structures Social vulnerability	
4. Qualitative Fire risk assessment	Risk Matrix Event-Tree Method	
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** Actual practice 2. Bosnia and Herzegovina **UBL/UTZ** Legislation 3. Albania ???? UT/EPOKA Case studies 4. Montenegro ??? UM/UkiM 5. Macedonia ??? UKiM/UM **Section 5: Concluding remarks** 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 –UNTZ only (B&H)
  - ✓ 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	Jeiella 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		

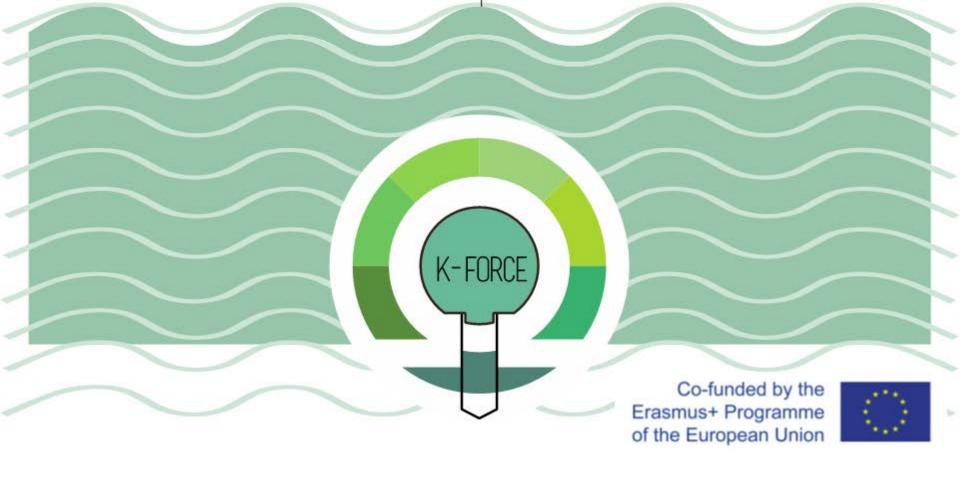
Section 4: Perspective on Fire Risk Management in the Balkans		
2. Bosnia and Herzegovina	Actual practice Legislation	UBL (?) – not send yet UNTZ (Dr.sc. Jelena Marković
	Case studies	Dr.sc. Edisa Nukić) - completed

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

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







# Thank you for your attention

Contact info about the presenter: edisa.nukic@untz.ba

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