# **BRIDGE CHAIR**

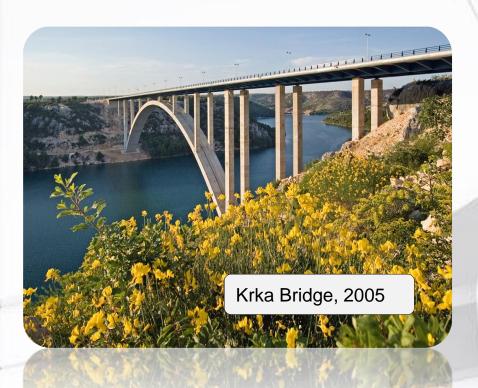
UNIVERSITY OF ZAGREB
FACULTY OF CIVIL ENGINEERING
STRUCTURES DEPARTMENT

## **BRIDGE CHAIR: Major projects**

- Oldest Technical Chair of Zagreb University, founded in 1919
- Center of scientific research for bridges
- Productive design team with many large bridges and other structures constructed



## **BRIDGE CHAIR: Major projects**





## **BRIDGE CHAIR: Major projects**

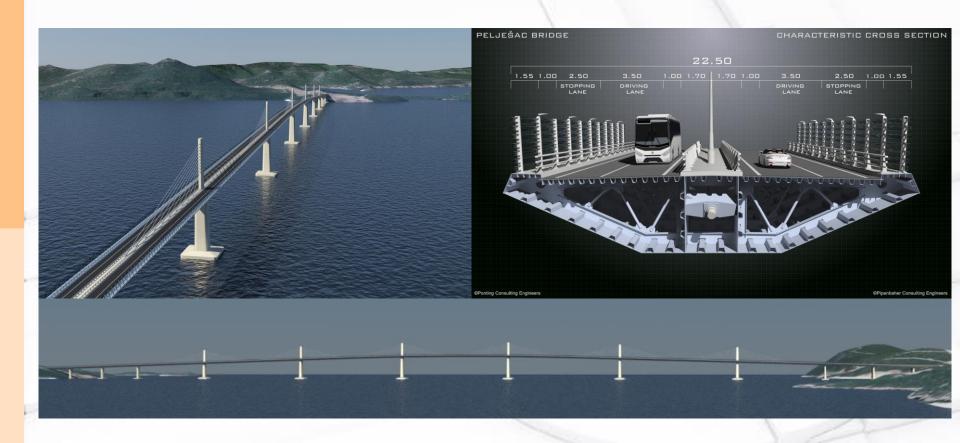
Zagreb airport terminal roof truss, 2017

Skradin bridge, 2005



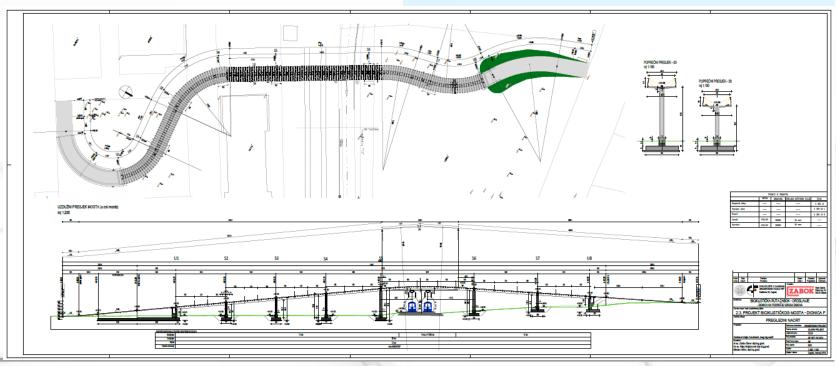


- Pelješac Bridge (in construction)
- Consortium: Faculty of Civil Engineering, Ponting d.o.o. and Pipenbaher Engineers d.o.o.
- Conceptual Design, Main Design, Construction Supervision, Detailed Design Consulting

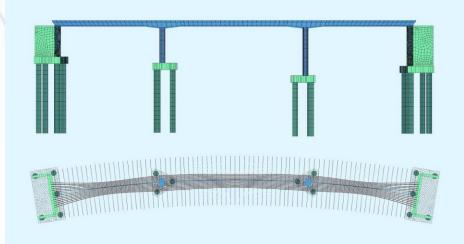


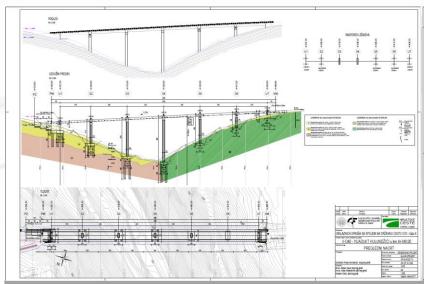
Footway bridge in Zabok

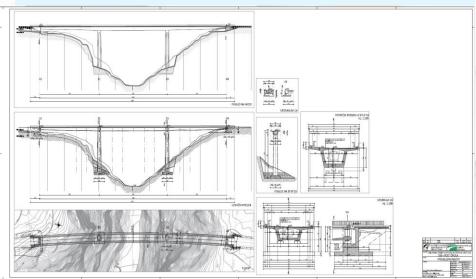




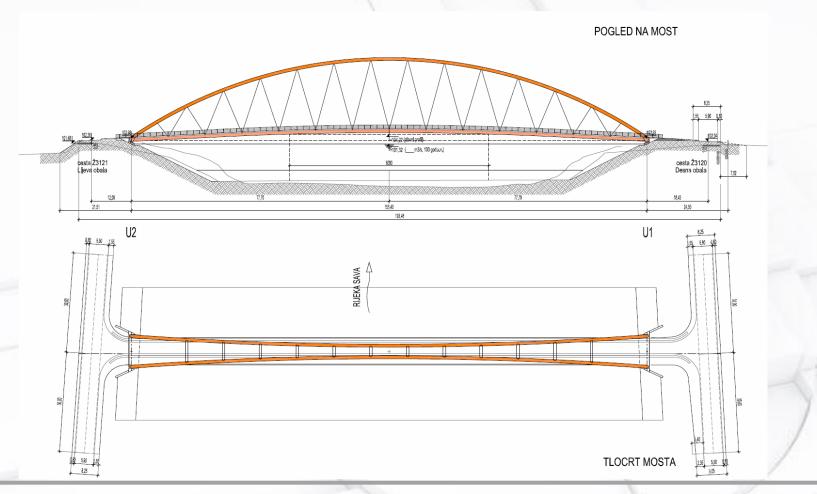
Bridges on Drniš bypass







Bridge accross Sava river between Tišina Kaptolska and Tišina Erdedska



#### **BRIDGE CHAIR: Literature**

Textbooks for students



### **BRIDGE CHAIR: Literature**

Manuals for students and professionals



### **BRIDGE CHAIR: Student fieldwork**

Pelješac bridge construction site visit

Svilaj bridge construction site visit





#### **BRIDGE CHAIR: Scientific projects**

Projects in the field of inspection, assessment and management of existing bridges

- Influence of concrete damage on reinforcement corrosion - computer simulation and in-service performance of bridges: CODEbridges; <a href="https://www.grad.unizg.hr/codebridges">https://www.grad.unizg.hr/codebridges</a>
- Action TU1402: Quantifying the value of structural health monitoring; <u>www.cost-</u> <u>tu1402.eu</u>
- Action TU 1406: Quality specifications for railway bridges, standardisation at a European level; <a href="https://www.tu1406.eu">www.tu1406.eu</a>
- "Durability of reinforced concrete structures -Croatian and Canadian practices" CROCANDY

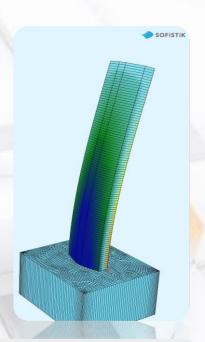


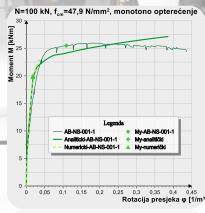
#### **BRIDGE CHAIR: Research**

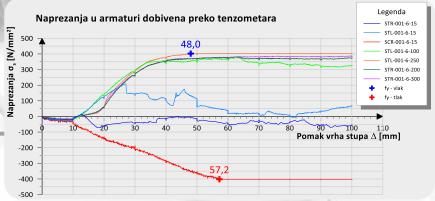
Detection of bridge column ductility level





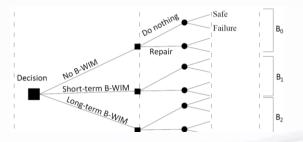


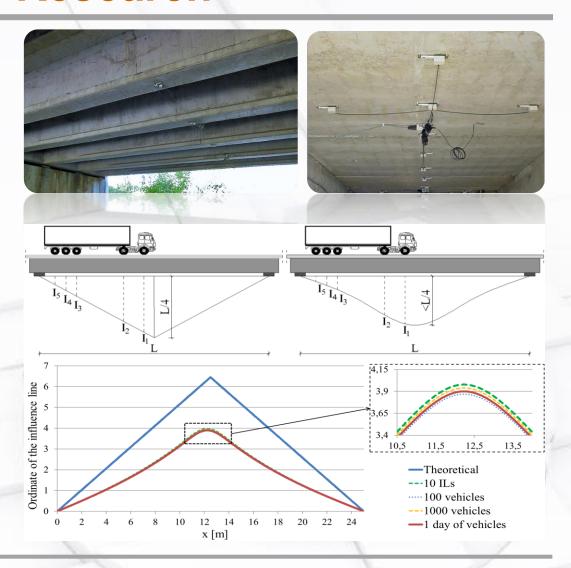




### **BRIDGE CHAIR: Research**

Bridge monitoring costeffectiveness evaluation



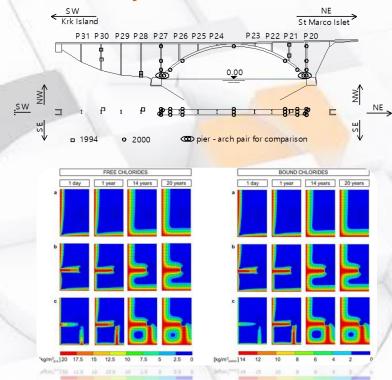


#### **BRIDGE CHAIR: Research**

- Cooperation with Croatian Military
  - □ Demolition of bridge elements

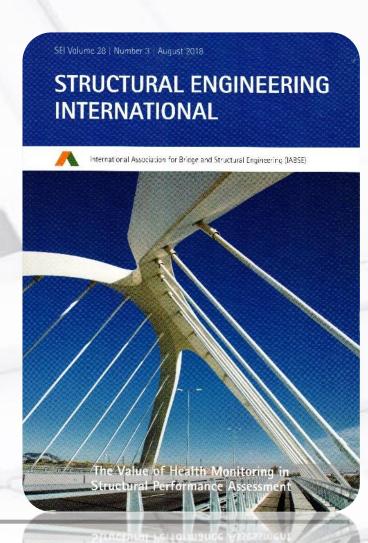


- Cooperation with international institutions
  - University of Stuttgart
  - University of Toronto



#### **BRIDGE CHAIR: Other activities**

- Active memberships and participation in various Croatian and international associations
  - IABSE Commission 1 Performance & Requirements for Structures
  - https://iabse.org/Committees/Technical-Groups/Commissions/Commission-1
  - Structural Engineering International journal Editorial Board
  - https://iabse.org/Committees/Technical-Groups/SEI-Editorial-Board
  - Frontiers in Built Environment journal Editorial Board
  - https://www.frontiersin.org/journals/builtenvironment



The Value of Fealth Monitoring

### **BRIDGE CHAIR: Volunteering**

Post earthquake inspections



# BRIDGE CHAIR

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