

Webinar for the 3rd Training School organized within the project "ATCZ190 SAFEBRIDGE"

Date: 18.–19. 03. 2021

Place: Zoom Meeting Room
<https://bokuvienna.zoom.us/j/97654657206?pwd=VjNiRk0wU3FIZHBUnQ4bkFjcHhJdz09>

Target group: The course is focused on Czech and Austrian strategic partners and invited experts in the area of assessment of the condition and reliability of bridges. The course is also suitable for designers and those interested in FEM modelling and its utilization in structural design and verification.

Organization of the course: The course is free of charge and will be held in English. For the participants presentations focused on case studies will be prepared also in Czech/German. Within the course, participants will be provided to work actively in the ATENA software shell.

Preliminary program:

(The final program will be adjusted based on the number of participants and their possible requirements.)

Thursday, 18. 03. 2021

Morning session:

- 10:00 – 12:00** ATENA training course
- Introduction to nonlinear modelling, possibilities of ATENA utilization
 - Demonstration – creating a beam model in ATENA 2D Engineering software
 - Material models and their parameters
 - Specifics of the finite element method for nonlinear models

Afternoon session:

- 14:00 – 16:00** ATENA training course
- Boundary conditions, loads, methods of nonlinear solution, monitoring and evaluation of results
 - 3D modelling – layered shell elements, material models under 3D stress
 - ATENA 3D Engineering and ATENA Science softwares

Friday, 19. 03. 2021

Morning session:

- 10:00 – 12:00** Engineering tool SARA
- Accounting randomness and uncertainty in nonlinear analysis of structures
 - Structural response, resistance assessment, safety formats
 - Advanced probabilistic and reliability analysis
 - Demonstration – SARA 2D utilization

Afternoon session:

- 14:00 – 16:00** Results and findings from advanced probabilistic analyses of selected reinforced concrete and prestressed concrete bridges in CZ and AT
- Presentations of bridge case studies
 - Discussion and analysis of details/partial problems

Please confirm your participation until **08. 03. 2021** by sending a completed Registration Form to safebridge@vut.cz and h87500_safebridge@boku.ac.at.