

Structural Safety past advancements and future challenges

Workshop dedicated to the 50th anniversary of the JCSS

22.-23. May 2024, Klokner Institute, CTU in Prague, Czech Republic



Invitation

Society expects buildings, bridges and other civil engineering structures to possess an adequate level of safety for the intended service life. However, structural safety is affected by many uncertainties related to material and geometrical properties, system behaviour, load and degradation effects etc. The need to systematically quantify and correctly consider such uncertainties in reliability assessments of structures made of various materials and for various purposes was one of the main reasons for establishing an international research organisation – the Joint Committee on Structural Safety. Over half a century ago, the founding associations included IABSE, CIB, ECCS, fib, IASS, and RILEM.

The workshop organised at the occasion of the 50th anniversary attempts to overview the JCSS achievements and identify and discuss the challenges to be addressed in future. Experts from the founding associations and key JCSS members will present invited contributions focused on the following topics:

- quantification of uncertainties of loads, load effects and structural resistance,
- reliability analysis of new and existing structures made of common and new materials,
- risk assessment, acceptance criteria,
- decision making under uncertainty, climate change and sustainability aspects,
- simplified safety concepts and code calibration.

Format: The workshop will only comprise of invited contributions of experts from JCSS-founding associations and JCSS members. Both in-person and online participation will be supported. The number of in-person participants is limited to 50.

Registration: via email – Miroslav Sykora, miroslav.sykora@cvut.cz.

Technical and organization committee:

Miroslav Sykora, Czech Technical University in Prague, Czech Republic, Maria Giuseppina Limongelli, Politecnico Milano, Italy, Michael H. Faber, Aalborg University, Denmark, Jochen Köhler, Norwegian University of Science and Technology, Trondheim, Norway.

Preliminary Program

Wedne	sday, 22.5.2024			
12.30	Arrival and Coffee			
13.00	Welcome and overview	J.Köhler		
13.05	Welcome address by J.Kolisko (director of Klokner Institute)			
13.15	General JCSS Presentation (History, Main Outputs)	T.Vrouwenvelder		
		M.Faber		
14.00	The European Convention for Constructional Steelwork – ECCS			
	The ECCS, organisation, activities	M.Feldmann		
	Technical presentation	M.Feldmann		
15.00	Refreshments			
15.30	International Association for Shell and Spatial Structures – IASS			
	The IASS, organisation, activities	C.Lázaro		
	Reliability of large spatial structures	K.Kawaguchi		
16.30 International Union of Laboratories and Experts in Construction Materials, Systems and Structures – RILEM				
	RILEM, organisation, activities	C.Andrade		
	Environmental exposure	C.Andrade		
17.30	International Federation for Structural Concrete – fib			
	fib, organisation, activities	D. Fernández- Ordóñez		
	The Model Code 2020	A. Bigaj van Vliet		
	Action effects uncertainties	A. Muttoni		
18.45	End of meeting			
20.00	Dinner			

Thursday, 23.5.2024					
09.00	Arrival and Coffee				
09.15	International Association for Bridge and Structural Engineering – IABSE				
	IABSE, organisation, activities	M.Limongelli			
	Calibration of Partial Safety Factors for the Assessment of Existing Bridges	A.O'Connor			
	Probabilistic Non-linear Finite Element Modelling – Reliability and Safety Formats	A.Strauss			
	Design Requirements for Infrastructure Resilience	N.Makhoul			
11.00	Refreshments				
11.30	Selected JCSS contributions				
	What is the probability of failure?	D.Straub			
	Sustainability potential of safe structures	J.Köhler			
	Development of decision criteria for sustainable development	M.H.Faber			
	NN	M.Holicky			
13.20	Closure	M.Sykora,			
		J.Köhler			
13.30	End of the Workshop				

Note that the workshop will follow a regular JCSS meeting to be held on 21 May (afternoon) and 22 May (morning).

Venue – address and contact person

Klokner Institute

Czech Technical University in Prague Solinova 7 16608 Prague 6 Czech Republic www.klok.cvut.cz/en

Contact persons:

Jana Pallierova, mobile: +420 732 629 737, jana.pallierova@cvut.cz Miroslav Sykora, mobile: +420 721 709 387, miroslav.sykora@cvut.cz

How to get to the Klokner Institute

Arriving from the airport

- Trolleybus and metro Trol No. 59:
 - stops next to the arrival hall
 - departs every 3-10 minutes
 - goes just in one direction to the city centre
 - 15min ride, exit Nadrazi Veleslavin stop, change to metro.



Metro:

- From Nadrazi Veleslavin 2 stops direction Depo Hostivar exit at Dejvicka.
- Take exit "Evropska/Tram Divoka Sarka"
- then street exit "Solinova/Vysoke skoly".

Straight on 50 m to the entrance of the Klokner Institute.



Enter the building, pass the reception office and turnstile, turn to the left door at the bottom of the main staircase, go past the reception of the Klokner Institute, then go straight on to the staircase. The meeting room is downstairs, in the basement.

• Trolleybus and tram

Trol No. 59 (see above)

- to stop $\bf Divoka~Sarka.$
- from there take any tram going to the city centre.

Tram

- exit at **Dejvicka** (10 stops).

Down to the subway, exit by "Solinova/Vysoke skoly", 50 m to the entrance of the Klokner Institute.

How to buy TICKETS for PUBLIC TRANSPORTATION

• Contactless fare payment: payment terminals installed on all trams (in the middle), city buses (near 2nd door), and metro stations. After purchase, no printed ticket needs to be validated. Card payment in the metro wagons is not possible yet.



• The paper-ticket terminals: at metro stations, some surface transport stops

Information centers: at the airport, some metro stations, e.g. the entrance hall of Nadrazi Veleslavin



• Newsagents and some shops

FARE PRICES (CZK)

Tickets	regular	age 60-65	$age \ge 66 \ / \le 14$
Normal (90 min)	40	20	gratis
Short (30 min)	30	15	gratis
24 hours	120	60	gratis
72 hours	330	-	gratis

- Ticket validity is based only on time!
- Number of transfers does not matter.
- Do not re-stamp tickets when transferring! Restamping invalidates the ticket!
- Free transport / fare discount conditional on proof of age official document (passport, ID card).

• Taxi

- Uber, Bolt, Liftago (via app) or some local providers, e.g. www.levnenaletiste.cz

Arriving by train

- Prague Main Station (Praha hl.n.) and other Prague major train stations are connected by metro.
- From Prague Main Station Hlavni nadrazi (red line metro C) go to the transfer station Muzeum (1 stop direction Haje), change to the green line metro A and go to Dejvicka (the 5th stop).

Hotels

City center or close to it

• Hotel Clementin (Travellers 'choice 2023)

Address: Seminarska 4/176, Prague 1

- 4-minute walk to metro A STAROMESTSKA (3 stops to DEJVICKA (KI)/direction MOTOL)
- STAROMESTSKA DEJVICKA = 5-minute ride to Klokner Institute
- Hotel Josef

Address: Rybna 20, Prague 1

- 4-minute walk to tram stop **DLOUHA TRIDA** (tram line **26**/direction DEDINA)
- DLOUHA TRIDA DEJVICKA = 16-minute ride to KI
- Hotel Julian

Address: Elisky Peskove 11, Prague 5

- 3-minute walk to tram stop SVANDOVO DIVADLO (tram line 20/direction DED-INA)
- SVANDOVO DIVADLO DEJVICKA = 17-minute ride to KI
- Pytloun Old Armour Hotel

Address: Vsehrdova 16, Prague 1

- 4-minute walk to tram stop **UJEZD** (tram line **20**/direction DEDINA)

- UJEZD - DEJVICKA = 16-minute ride to KI

• Hotel Lippert

Address: Mikulasska 19/2, Prague 1

- 4-minute walk to metro A STAROMESTSKA (3 stops to DEJVICKA (KI)/direction MOTOL)
- STAROMESTSKA DEJVICKA = 5-minute ride to KI

HOTELS IN A WALKING DISTANCE TO THE KLOKNER INSTITUTE

• Vienna House by Wyndham Diplomat Prague

Address: Evropska 15, Prague 6, 3-minute walk to KI

• Hotel DAP Praha

Address: Vitezne namesti 4/684, Prague 6, 5-minute walk to KI

• Hotel Meda

Address: Narodni obrany 33, Prague 6, 10-minute walk to KI

• Hotel Masarykova kolej

Address: Thakurova 1, Prague 6, 5-minute walk to KI

• Grand Hotel International Prague

Address: Koulova 15, Prague 6, 15-minute walk to KI