



25–27 May 2022

IABSE Symposium Prague 2022

Challenges for Existing and Oncoming Structures



Final Invitation

ORGANISED BY
CZECH GROUP OF IABSE

IN COOPERATION WITH
CZECH TECHNICAL UNIVERSITY PRAGUE





Prof. Yaojun Ge

Message from the President of IABSE

On behalf of the International Association for Bridge and Structural Engineering, I would like to thank the Czech Group of IABSE for inviting the Association to host the IABSE Symposium 2022 in their wonderful country and city, Prague. It is the second time that IABSE will return to Prague. Fifty years ago, the IABSE Symposium 1971 was hosted in this magnificent city (then under the state of Czechoslovakia) under the leadership of František Faltus, one of the founding members of IABSE.

The Organising Committee chaired by Prof. Pavel Ryjáček, and the Scientific Committee chaired by Prof. František Wald, Chair of Czech Group of IABSE, are preparing a very attractive and innovative event with renowned Keynote Speakers, Plenary and Parallel Sessions, and technical visits under the theme “Challenges for Existing and Oncoming Structures”.

The Symposium will present and discuss the latest development of bridge and structural engineering with special respect to the challenges for bridges and structures. It will be an excellent chance for structural engineers involved in design, academe, construction, regulation and renewal to meet IABSE Members and discover their work. A special invitation goes to our young engineers, the builders of the future, to join us in Prague, those born in or after 1988 should take advantage of the “Young Engineers Programme”.

Panoramic views of Prague are breath-taking. When you look over the city from the castle, you will see why it is called the city of spires. Besides the technical programme, I look forward to the social activities and exploring the city. Prague is sometimes called the “mother of cities” and boasts a unique and extensive historical city centre, which since 1992 has been a protected UNESCO World Heritage Site.

Yaojun Ge

President of IABSE



Assoc. Prof. Pavel Ryjáček

Message from the Organising Committee

The Organising Committee is very pleased to invite you to participate in the IABSE Symposium 2022 in Prague, Czech Republic, on 25–27 May 2022. This IABSE Symposium is organised by the Czech Group of IABSE in cooperation with Czech Technical University in Prague and will be the first international IABSE event hosted in the Czech Republic.

Join us for an amazing event in the beautiful City of Prague. We are preparing a very interesting classical onsite symposium. The Symposium will be a great opportunity for scientists, experts, designers, contractors to discuss the latest innovations on structural and bridge engineering, especially regarding the challenges for existing and oncoming structures. Prague is easily accessible from around the world by air, train and road, and the Symposium will be held conveniently in the congress centre right in the centre of Prague with excellent connection to all important historical parts of the city.

As your host in the City of a Hundred Spires, beautifully set on the banks of the Vltava River, besides the scientific programme, we are looking forward to welcoming you to our technical visits, guided by local engineers and our wonderful social programme.

We invite you to join us in the historical heart of Europe to enjoy this IABSE event.

Pavel Ryjáček

Organising Committee Chair, Czech Republic



Prof. František Wald

Message from the Scientific Committee

The Scientific Committee of the IABSE Symposium Prague 2022 has prepared an interesting technical programme to discuss the latest developments of bridge and structural engineering with respect to the advanced and new methods of design and analysis.

Scientists, experts, designers, contractors and all those who are interested in advances and problems in civil engineering structures and bridges, in numerical modelling and advanced methods of design, are cordially invited to submit their paper to discuss and contribute to the theme "Challenges for Existing and Oncoming Structures (CEOS)".

The technical programme will include renowned Keynote Speakers, Plenary and Parallel Sessions, and technical visits will be organised. All written papers submitted are peer-reviewed by the Scientific Committee. The large majority of the presentations will be delivered orally in normal sessions, nevertheless special sessions will take place as well. Task Groups of IABSE can apply for these special sessions. Keynote Speakers will introduce relevant topics to the theme and give a state-of-the-art lectures.

We look forward to your contribution to the IABSE Symposium 2022 and to meeting you in Prague.

František Wald

Scientific Committee Chair, Czech Republic

Fast facts



Format

Onsite Conference



Venue

Prague Congress
Centre



Dates

25–27 May 2022



Participants

350+



Demographics

Practicing Engineers
and Architects, Researchers,
Consultants



Deadline

Early Registration
28 February 2022

Symposium Format



The IABSE Symposium Prague 2022 is a three day international structural engineering onsite conference bringing together students, designers, contractors, owners and experts from around the world to exchange cutting-edge knowledge and networking.

This Symposium will be a classical onsite meeting. Keynote Speakers will introduce relevant topics to the theme and give a state-of-the-art lectures, followed by presentations in Plenary and Parallel Sessions. The large majority of the presentations will be delivered orally in normal sessions, nevertheless, special sessions will take place as well.

Keynote Sessions will be given by renowned experts of each theme of the Symposium and will address the most innovative findings of their ongoing work.

Special Sessions will grant the opportunity to present developments related to a specific topic proposed by highly respected individuals on that field of research or technical practice. Each contribution to these sessions consists of a paper of six to eight pages and an oral presentation followed by an open floor discussion for the audience to participate in.

Themes and Topics

The sub-themes are especially

- Advanced models of structures and bridges
- Coming design standards
- Bridges and footbridges
- Advanced solutions for refurbishment and strengthening
- New and innovative materials, technologies and structural solutions
- Standards for refurbishment
- Building information modelling for life of structures

Also, traditional topics are addressed, such as

- Advanced structural analysis
- Architecture of structures
- Cold-formed and thin-walled members and structures
- Connections
- Damage repair and assessment of steel structures
- Dynamic behaviour and analysis
- Fatigue and fracture mechanics
- Fire engineering
- High strength, aluminium & stainless steel
- Innovative structural designs and applications
- Lightweight fibre reinforced plastic composite structures
- Large span and high-rise structures
- Plate, shell and space structures
- Reliability, safety and risk analysis
- Robustness
- Seismic-resistant structures and blast loading
- Stability of glass and hybrid structures
- Steel-concrete composite members and structures
- Structural health monitoring
- Strengthening and retrofitting of structures and bridges
- Trusses, towers and masts
- Tubular constructions

Confirmed Special Sessions

- The Management System and Building Information Modelling: Challenges and Vision (Vanja Samec, Chair)
- Recent Issues in Dynamics of Bridges and Footbridges (Stanislav Pospíšil, Chair)
- New European Standardisation on Monitoring, Safety Assessment and Bridge Maintenance (Diego Lorenzo Allaix, Chair)
- The Storstrøm Bridge in Denmark - Challenges in Design and Construction (Nikolaj Rask Pedersen, Chair)
- Steel structure Design assisted by Finite Element Analysis (Dunai László, Chair)
- Ultra-High-Performance Concrete is Ready to Revolutionise (Eugen Brühwiler, Chair)
- Structural Steel Connection Design: Challenges and Vision (Milan Veljkovic, Chair)
- Membrane structure architecture and building construction (Natalie Stranghöner, Chair)

Keynote Speakers



UHPFRC is Ready to Revolutionise Existing and New Structures

Eugen Brühwiler

Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland



Fracture Size Effect in Concrete Design Codes

Zdeněk P. Bažant

McCormick Institute, USA



Carbon Concrete – Towards a Climate Neutral Building Industry

Manfred Curbach

Technische Universität Dresden, Germany



Steel Structure Design Assisted by Finite Element Analysis

László Dunai

Budapest University of Technology and Economics, Hungary



The Bridges in Italy: How to Manage the Infrastructural Heritage Guaranteeing Safety and Sustainability

Marco Di Prisco

Politecnico di Milano, Italy


















Multilevel FEA and BIM for the Design of Structural Steel

Franitsek Wald

Czech Technical University in Prague, Czech Republic

Programme at a glance

	24 May	25 May	26 May	27 May	28 May
Time	Tuesday	Wednesday	Thursday	Friday	Saturday
from 8:00		Registration	Registration	Registration	
09:00		Opening Ceremony	 Keynote Lectures	 Keynote Lectures	
09:30		 Keynote Lectures			
10:00			Coffee Break	Coffee Break	
10:30		Coffee Break			
11:00		 Scientific/Technical Sessions	 Scientific/Technical Sessions	 Scientific/Technical Sessions	
11:30					
12:00			Lunch	Lunch	
12:30		Lunch			 Technical Visit A
13:00					
13:30					
14:00		 Scientific/Technical Sessions	 Scientific/Technical Sessions	 Scientific/Technical Sessions	
		Guided walking tours		Guided walking tours	
14:30					
15:00					
15:30					
16:00	Registration	Coffee Break	Coffee Break	Coffee Break	
16:30		 Scientific/Technical Sessions	 Scientific/Technical Sessions	 Scientific/Technical Sessions	
17:00			 Technical Visit A		
17:30					
18:00		Welcome Reception		Closing Ceremony	
18:30					
19:00					
19:30			Gala Dinner		
20:00					
21:00–23:00					 Technical Visit B

Guided walking tour will be held on Wednesday, 25 May and Thursday, 26 May at 14:00 h (10–40 participants each).

Registration

Registration is open and can be made via the link available at:
www.iabse.org/Prague2022/Registration

Fee	Early Registration Until 28 February 2022 EUR	Regular Registration From 1 March 2022 EUR
IABSE Member	600	700
Non-Member	800	900
Non-Member Plus*	820	920
Young Engineer**	300	350
Accompanying Person	100	120
Gala Dinner	90	90

VAT is included
in registration
fee.

* The Non-Member Plus fee is for Non-members who would like to become an IABSE member. This fee includes IABSE Membership for 2022, for more information about IABSE membership, please visit the IABSE official website or contact secretariat@iabse.org.

** All participants born in or after 1988 will benefit from a reduced registration fee and are offered free IABSE membership for the year 2022.

Registration shall be done www.iabse.org/Prague2022/Registration via the conference website. Authors of accepted papers have to register and pay by 28 February 2022, in order to present their paper to ensure its publication in the Symposium proceedings. Early Bird registration ends on **28 February 2022**.

All registration deadlines are based on the end of the actual day (**midnight CET**). Please make sure to pay your registration fee before the deadline applicable. If your payment is not received in due time, the later fee will be automatically applied.

Unpaid or partially paid registrations will not be considered as valid until paid in full.

Payments through bank transfer will be valid after payment successfully received, participants should send a draft in order to complete registration.

Payment by credit card (VISA, American Express or Master Card) is automatically confirmed upon authorisation by the participant.

Symposium Registration Fees Include

- Access to the Opening and Closing Ceremony, all scientific sessions, the poster area and the exhibition
- Coffee and lunches during symposium
- Attendance to the Welcome Reception
- Symposium bag including Final Programme and conference proceedings.

Accompanying Person Fee Includes

- Opening Ceremony
- Attendance of the Welcome Reception
- Coffee and lunch during symposium
- Grand tour of Prague (walking tour of Prague)

Group Registrations

For Group registration, please Contact the Symposium Secretariat for invoicing preferences.

Cancellation of Registration

- Until 25 March 2022 – a full refund, less 50 EUR administrative fee will be issued
- From 26 March 2022 until 15 April 2022 – 50 % of the registration fee will be refunded
- From 16 April 2022 no refund will be issued.

Contact Information

For any questions relating to registration please contact the Symposium Secretariat on iabse2022prague@c-in.eu

The Young Engineers Programme

All participants born in or after 1988 will benefit from a reduced registration fee and are offered free IABSE membership for the year 2022. In addition two authors born in or after 1988, who personally present their paper at the Symposium, will be recognised with an award consisting of a money prize offered by the OC and the IABSE Fellows. The awards will be presented at the Symposium Closing Ceremony.

Technical Visits and Social Programme

Technical Visits to interesting projects and to research facilities guided by local engineers are planned during the Symposium. Visits will also be open to accompanying persons. Detailed information will be available on the symposium website.

Technical Visit A

Technical Visit A will guide participants by bus through most interesting and exciting bridges in Prague. From the masonry Negrelli bridge and Troja bridge to the expected construction of the UHFRPC pedestrian bridge HOL-KA.



Dates

Thursday,
26 May 2022,
14:00–18:00

Saturday,
28 May 2022,
09:00–13:00

Price

25 Euro per person



B

Technical Visit B

Technical Visit B will guide participants by bus through most interesting and exciting bridges in Czech Republic. We will start on the Lochkovský bridge, move to the UHFRPC pedestrian cable stayed bridge in Lužec, visit movable masonry lift bridge in Hořín, visit Žďákovský most and selected ongoing bridge constructions (based on the availability).

Dates

Saturday,
28 May 2022,
09:00–18:00

Price

55 Euro per person
(including lunch)





Welcome Reception

You are invited to join us for the official Welcome Reception, taking place on 26 May at 18:00 hrs in the Exhibition area located on the Foyer of the Prague Congress Centre. Don't miss the chance to discuss the most recent developments and meet new and old friends and colleagues. All participants and accompanying persons are invited.





Prague's Unesco Heritage

Beautifully set on the banks of the Vltava River, Prague, the City of a Hundred Spires is one of the most majestic cities in Europe. The historic centre of Prague admirably illustrates the process of continuous urban growth from the Middle Ages to the present day. Its important role in the political, economic, social and cultural evolution of central Europe from the 14th century onwards and the richness of its architectural and artistic traditions meant that it served as a major model for urban development for much of central and eastern Europe. Prague represents one of the most prominent world centres of creative life in the field of urbanism and architecture across generations, human mentality and reliefs.

Gala Dinner

Date: Thursday, 26 May, 2022

Time: 19:30

Venue: tbc

Besides the comprehensive scientific programme IABSE 2022 Prague is going to be a perfect opportunity to build up and strengthen your social networks and friendships. Sign up for this event and enjoy a fantastic evening with excellent food and fine selection of drinks.

Please note that then number of participants is limited.



Sponsorship and Exhibition

IABSE Symposium Prague 2022 Sponsorship and Exhibition Opportunities

The IABSE Symposium Prague 2022 will provide the perfect opportunity for vendors to present the latest developments in our industry. Situated in the heart of Europe, Prague naturally promotes and provides the perfect meeting place for international guests. Prague is easily accessible from around the world by air, train and road, and the Symposium will be held conveniently in the congress centre right in the centre of Prague with excellent connection to all important historical parts of the city. As a sponsor or an exhibitor at the Symposium, your company will be visible to more than 350 delegates expected from all over the world. As the world returns from the pandemic outbreak, we are excited to meet in person with a live onsite exhibition. In addition, there will be ample opportunities to network with the top researchers and industry leaders from all over the world.

Sponsorship & Exhibition Brochure

We have further opportunities for companies looking to increase their visibility at IABSE Symposium Prague 2022. We would also be happy to discuss any desired tailored requirements you have. For more information please visit our website and download the Sponsorship and Exhibition brochure.

Contact

IABSE Symposium
Prague 2022 Secretary:
iabse2022prague@c-in.eu

or

IABSE Secretariat:
cheryl.cornelio@iabse.org

IABSE Symposium Prague 2022 Floorplan

The following shows the layout of the exhibition which has been planned to maximise traffic around the exhibition, whilst being in close proximity to the meeting rooms.



Sponsors

Gold



Bronze



Exhibitors



Media Partner



Venue and Hotels

The Prague Congress Centre is a city landmark and has spectacular views of the city. It ranks among the most significant European conference centres, with a capacity for conferences of up to 9,300 participants in more than 50 halls, lounges and meeting rooms. The largest hall is the Congress Hall, with a maximum capacity of 2,764 seats.

There are two hotels in walking distance from the venue

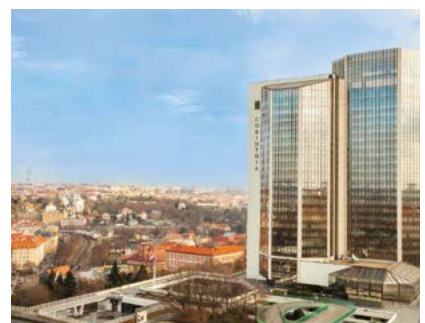
Hotel Holiday Inn Prague Congress Centre

www.holidayinn.cz



Hotel Corinthia Prague

www.corinthia.com/prague



Committees

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Pavel Ryjáček, *Chair*

Vladimir Cervenka

Milos F. Drdacky

Daniel Lemak

Milan Kalný

Jindrich Potucek

Roman Safar

Petr Tej

Jan Vitek

Dana Wangler

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Jan Vitek, *Czech Republic (Vice-Chair)*

Michal Jandera, *Czech Republic*

Martina Eliášová, *Czech Republic*

Petra Kamenská, *Czech Republic (Secretary)*

iabse2022prague@c-in.eu

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Milos Drdacky, *Czech Republic*

Laszlo Dunai, *Hungary*

Sam Easterling, *USA*

Lennart Elfgren, *Sweden*

J Ramon Gaixola-Camacho, *Mexico*

Konstantinos Georgiadis, *Greece*

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Rade Hajdin, *Switzerland*

Paweł Hawryszków, *Poland*

Milan Kalny, *Czech Republic*

Igor Kavrakov, *Germany*

Markus Knobloch, *Germany*

(Scientific Committee continued)

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 Seyedmilad Komarizadehasl, *Spain*
 Peter Koteš, *Slovakia*
 Ulrike Kuhlman, *Germany*
 Andreas Lampropoulos, *UK*
 Poberto Leon, *USA*
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 Alphose Zingoni, *South Africa*

About IABSE

The International Association for Bridge and Structural Engineering (IABSE) was founded in 1929 and has its seat in Zurich, Switzerland. Today, IABSE has members in 100 countries and 58 National Groups around the world. IABSE's aim as a scientific and technical society is to promote the advancement of structural engineering practice while taking into account technical, economic, environment, aesthetic and social aspects. IABSE deals with all structures and with all materials.

To fulfil its mission IABSE organises conferences and publishes the quarterly journal Structural Engineering International (SEI), conference reports, as well as books reflecting the work of its technical groups. It creates technical groups as required by needs and technological progress, offers activities within National Groups of IABSE, supports Young Engineers with a programme and presents annual awards for outstanding achievements in research and practice that advance the profession of structural engineering.

Contacts

IABSE Secretariat

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Symposium Secretariat

C-IN

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Czech Republic
Phone: +420 261 174 301
E-mail: iabse2022prague@c-in.eu
www.iabse.org/Prague2022



Practical Information

VISA

The Czech Republic has been a member of the European Union since 2004. Citizens of the EU member states are required to carry their passports or other form of valid identification in order to enter the country. The same applies for the citizens of Iceland, Liechtenstein, Norway or Switzerland, who can move freely around the EU states. In 2007, the Czech Republic signed the Schengen agreement. The list of countries whose citizens require a visa in order to visit can be found [here](#).

Time Difference

The Czech Republic is in the Central European Time Zone (CET). CET is 1 hour ahead of Greenwich Mean Time (GMT +1). After the last Sunday in March the time in Czech Republic is shifted back by 1 hour to CET and this remains until the end of September.

Electricity

The electricity used in Czech Republic is 220 Volts / 50 Hz (type E French 2-pin electrical adapter plug and electrical outlet identified by two round pins spaced 19 mm apart with a hole for the socket's male grounding pin. Type E outlet will also accept Type C plugs and Type E plugs will also work in Type F outlets. A transformer is necessary for your electrical and electronic equipment if using different voltage (ie USA, Canada).

Currency / Exchange

The Czech currency is called the Czech crown (CZK). Its circulation is in the form of banknotes of the following value: 5,000, 2,000, 1,000, 500, 200, 100 and coins of the following value: 50, 20, 10, 5, 2, 1 crowns.

Exchange offices are located all around the city centre (exchange offices, banks, post offices).

Always check the terms and conditions in exchange offices. Never exchange money at the street.

Public Transportation and Useful Links

Public Transport from/to the Vaclav Havel Prague Airport

- **Bus 119:** Prague Airport – Nádraží Veveřslavín (Metro, Line A) – 17 min
- **Airport Express Bus:** Prague Airport – Prague Main Train Station (Metro, Line C) – 35 min

You can find more information about all kinds of transportation from/to the Vaclav Havel Prague Airport [here](#).

Getting to Venue

By Metro

The Prague Congress Centre is adjacent to the Vyšehrad station on Line C of the Prague underground Metro network, providing convenient access by public transport from the city's airport and all major rail and bus stations.

Maps, timetables, fares and route planning are available in English on the Prague Public Transport website www.dpp.cz/en.

Useful websites to prepare your arrival to Prague and your attendance to the Symposium:

- Airport: www.prg.aero/en
- Currency converter: www.xe.com/ucc
- Central bank exchange rates: www.cnb.cz/en
- Prague (information about): www.praguewelcome.cz/en
- Official Tourist Board: www.czechtourism.com/home
- Public Transport in Prague: www.dpp.cz/en
- Restaurants: www.praguewelcome.cz/en/dine

