

27TH INTERNATIONAL SYMPOSIUM BRIDGES

16-17 June 2022

PROGRAMME

Thematic headings

I. Bridge structures in the Czech Republic - construction, management and maintenance, standards

- Planning and financing of bridge structures
- Significant bridge constructions
- Current Legislation - Terms and Conditions of Construction
- Preparations for planned constructions
- Condition of road and railway bridges in the Czech Republic, their management and maintenance

II. Bridges abroad

- Information about professional events abroad
- Examples of major new and reconstructed bridges

III. Bridges in the Czech Republic - science and research

- New scientific knowledge in the field of bridge structures, research projects
- Innovations in technology, materials and products for bridges

IV. Bridges in the Czech Republic - projects and realisations

- Projects of new constructions, reconstructions and repairs of bridges
- Implementation of new constructions, reconstructions and repairs of bridges
- Bridge equipment
- Defects and failures of bridge structures, their causes and consequences

16 June 2022 - Thursday - Day 1 of the Symposium

08.00 Registration of participants

CONGRESS HALLS A+B

09.00 - 09.45 **Opening ceremony of the 27th International Symposium Bridges 2022 - presentation of honorary mentions, Bridge Work 2020**

09.45 - 10.55 **Greetings and contributions from representatives of investors SFDI, ŘSD ČR, Railway Administration, state organisations**

10.55 - 11.05 **Development of bridge structures for 2021, outlook for 2022 and beyond**
Ing. Jan Šesták; Technical Administration of Communications of the Capital City of Prague Prague

I. Bridge Structures in the Czech Republic - Construction, Management and Maintenance

11.05 - 11.45 **Peljesac Bridge**
PIPENBAHER; Ponting

11.45 - 11.55 **RECONSTRUCTION OF THE BRIDGE ON KM 21.502 OF THE LINE RUMBURK - SEBNITZ (KAROLÍNA)**
Ing. Martin Vlasák; SUDOP PRAHA a.s.

11.55 - 12.10 **RECONSTRUCTION OF THE VIADUCT IN VILÉMOV ON THE LINE RUMBURK - SEBNITZ**
Ing. Pavel Kalíšek, Ing. Marek Rusňák, Ing. Jakub Sláma, Ing. Gabriela Šoukalová, Ing. Petr Štásta, Ing. Dalibor Václavík; FIRESTA - Fišer, rekonstrukce, stavby a.s., Chládek a Tintěra, Pardubice a.s.

12.10 - 12.30 **DVORECKÝ BRIDGE OVER THE VLTAVA RIVER IN PRAGUE**
doc. Ing. Tomáš Rotter, CSc Ing. Petr Souček, Ing. Arch. Radek Šíma; Faculty of Civil Engineering CTU Prague, TUBES s.r.o. and PONTEX s.r.o., ATELIER 6 s. r. o.

12.30 - 13.30 **LUNCH**

CONGRESS HALLS A+B (Parallel section)

II. Bridges abroad

13.30 - 13.45 **Weathering Steel Bridges - the New European ECCS Design Guide**
Dennis Rademacher, Peter Hatke; ArcelorMittal, Steligence, Esch-sur-Alzette, Luxembourg

13.45 - 14.00 **Lowering the environmental impact of infrastructures with efficient design of low carbon footprint steel solutions**
Dr. Ing. Oliver Hechler, Dipl. Ing. João Martins, Dr. Ing. Mike Tibolt Dr., Ing. Dennis Rademacher; ArcelorMittal Sheet Piling, Esch-sur-Alzette, Luxembourg

14.00 - 14.15 **The construction of a new bridge over the Warta river in Rogalinek**
Leszek Gaweł, Remigiusz Grodzicki; Skanska Central Europe, Civil Branch in Poland

14.15 - 14.30 **Bridge over the Darga River in Jerusalem**
Ing. Michael Zörkler, Ing. Jindřich Potůček P.E.; Finley Engineering Group s.r.o.

- 14.30 - 14.45 **Completion of the RDS of the Gottleubatalbrücke bridge in Pirna during its construction (or when everything is wrong)**
doc. Ing. Marek Foglar Ph.D., prof. Ing. Jan. L. Vitek, CSc., Ing. Martin Havlík; Metrostav a.s. , Pontex s.r.o.
- 14.45 - 15.00 **Fly-over concrete bridges over the Wekiva River, Design Build Florida**
Jan Žitný, Jindřich Potůček, Jerry Pfuntner; Finley Engineering Group International
- 15.00 - 15.15 **RECONSTRUCTION OF BRIDGES 266 AND 269 ON ROAD I/18 STREČNO**
Ing. Jaromír Zouhar; ViaCon ČR s.r.o.
- 15.15 - 15.30 **Çanakkale Bridge - The worlds largest suspension bridge**
Suzanne Saynor; USL Speciality Products

MEETING ROOMS 3+4 (Parallel section)

III. Bridges in the Czech Republic - science and research

- 13.30 - 13.45 **CONNECTION OF EXPANSION UNITS OF LONG BRIDGES**
prof. Ing. Jiří Stráský, DSc. Ing. Libor Hrdina, Ing. Daniel Hibš; Stráský, Hustý and partners s.r.o.
- 13.45 - 14.00 **Footbridge made of wooden beams with prefabricated bridge deck made of UHPC plates**
Ing. Milan Holý, Ph.D., doc. Ing. Lukáš Vráblík, Ph.D., FEng, doc. Ing. Jiří Kolísko, Ph.D.; Klokner Institute of CTU in Prague, Faculty of Civil Engineering CTU in Prague, Valbek, spol. s r.o.
- 14.00 - 14.15 **New technical rules for testing, design and manufacture of UHPC and its components**
doc. Ing. Jiří Kolísko, Ph.D., Ing. Robert Coufal, Ph.D., Ing. Milan Kalný, prof. Ing. Jan Vitek, CSc; Klokner Institute of CTU in Prague, TBG Metrostav a.s., Pontex s.r.o., FSv CTU in Prague, Metrostav a.s.
- 14.15 - 14.30 **Evaluation of results of diagnostic surveys and recalculations of railway prestressed bridges**
Ing. Tomáš Dejmek, Ing. Filip Kramoliš, doc., Ing. Pavel Ryjáček, Ph.D., Ing. Petr Komanec; Faculty of Civil Engineering CTU in Prague, Pontex s.r.o.
- 14.30 - 14.45 **Robotic additive manufacturing in bridge construction**
Michal Kužník; SMP CZ a.s.
- 14.45 - 15.00 **USE OF DRONES DURING BRIDGE INSPECTIONS**
Ing. Michal Janků, Ph.D., Ing. Jiří Grošek, Ph.D., Ing. Josef Stryk, Ph.D., Ing. Ivo Hodovský; Transport Research Centre, v. v. i.
- 15.00 - 15.15 **Use of wireless technology for bridge monitoring**
doc. Ing. Pavel Ryjáček, Ph.D.; Faculty of Civil Engineering, CTU in Prague
- 15.15 - 15.35 **STRENGTH ASSESSMENT OF PRESTRESSED CONCRETE SECTIONS UNDER THE COMBINED ACTION OF INTERNAL FORCES**
Jaroslav Navrátil, Libor Michalčík, Filip Svoboda; ALLPLAN Česko s.r.o., Infrastructure Team

CONGRESS HALLS A+B (Parallel section)

III. Bridges in the Czech Republic - projects and realisations

- 15.30 - 15.50 **City ring road - section Křimická (Chebská) - Karlovarská in Pilsen - Bridge flyover over the Mže River inundation area**
Ing. Petr Koukolík, Ing. Štěpán Kohoutek, Ing. Maroš Híreš, Pavel Heller; Metrostav a.s, Division 5
- 15.50 - 16.10 **ŠÉBR FOOTBRIDGE OVER STOŽEC SADDLE**
Ing. Vít Št'astný; SaM Silnice a mosty a.s.
- 16.10 - 16.30 **Footbridge over the Elbe in Hradec Králové**
Ing. Jiří Keclík, Ing. Lucie Navarová, Ing. Viktor Stržínek, MBA, doc. Ing. Lukáš Vráblík, Phd. FEng, Ing. Petr Harazim, Ph.D.; SMP CZ, VALBEK
- 16.30 - 16.45 **Footbridge over the 1st class road and railway line in Pilsen - Kotěrovo**
Ing. Michal Dudek, Ing. Dalibor Gregor, Ph.D.; EXCON, a.s.
- 16.45 - 17.00 **REDUCTION OF THE BRIDGE M2 AT HIPPOS**
Ing. Miroslav Loučka, Ing. Petr Lamparter; PIS PECHAL, s.r.o., Fundos, spol. s r.o.
- 17.00 - 17.20 **NEW ROAD INTERFERENCE SYSTEMS OF OMO WITH 3 m STACK DISTANCE: MS4-A3/H2 and ZMS4-A3/H2**
Ing. Jaroslav Číhal; STAVBY OMO s.r.o

MEETING ROOMS 3+4 (Parallel section)

III. Bridges in the Czech Republic - science and research

- 15.35 - 15.55 **Experience from long-term operation of bridge structures made of patinated steel**
Kateřina Kreislová, Vít Křivý; SVÚOM s.r.o., VŠB-TU Ostrava
- 15.55 - 16.15 **Bridge over the Elbe in Nymburk, determination of the load capacity of the arch bridge by non-linear analysis**
Ing. Filip Řehoř, Ph.D, Ing. Miroslav Teuchner, Ing. Radomír Pukl, CSc., Ing. Filip Šmejkal; PRAGOPROJEKT, a.s., Červenka Consulting, s.r.o.
- 16.15 - 16.30 **ASSESSMENT OF PRESTRESSED CROSS MEMBERS AND PILLAR HEADS**
Ing. Lukáš Bobek, Ing. Petra Komárková, Ing. Lukáš Juříček, Ing. Jaromír Kabeláč, Ph.D., Ing. Michal Číhal; Brno University of Technology, Faculty of Civil Engineering, ÚBZK, IDEA StatiCa s.r.o.
- 16.30 - 16.45 **New possibilities for the anchor principle - combination of mechanical and chemical anchors**
Ing. Vratislav Valenta, Dr. Jörg Appl, Marco Abate; Hilti ČR
- 16.45 - 17:00 **REPAIR OF THE FOOTBRIDGE OVER THE MORAVA RIVER IN KROMĚŘÍŽ - DIAGNOSTICS, STRENGTHENING, REHABILITATION, MONITORING**
doc. Ing. Ladislav Klusáček, CSc., doc. Ing. Radim Nečas, Ph.D., Ing. Jan Kolářek, Ph.D., Ing. Adam Svoboda, Ing. Martin Olšák, Ing. Michal Požár, Ph.D.; Brno University of Technology, Faculty of Civil Engineering
- 17.00 - 17.20 **BRIDGE DESIGN ISSUES IN THE LIGHT OF THE MANAGEMENT AND MAINTENANCE OF THE RESULTING WORK**
Ing. Michal Drahorád, Ph.D., Ing. Pavel Sochor, Ing. Josef Machač, Ing. Milan Petřík; Mott MacDonald CZ
- 17.30 **Conclusion of the 1st day of the symposium**

19.00 - 24.00 **Social evening - Pivovarská Starobrnno, Mendlovo náměstí, Brno**

17 June 2022 - Friday - 2nd day of the symposium

CONGRESS HALLS 3+4

Opening of the 2nd day of the symposium

IV. Bridges in the Czech Republic - Projects and Realisations - Part 1

- 08.30 - 08.45 **IMPLEMENTATION OF BRIDGE STRUCTURES AT THE WEST CONSTRUCTION AUTHORITY**
Ing. Stanislav Kejval, Ing. Pavla Fialová; Railway Administration, state organization
- 08.45 - 09.00 **Solution of the special foundation of the extended railway bridge in Pardubice using a double sheet pile sump in the Elbe riverbed and other temporary structures**
Ing. Roland Mikulička; SUDOP PRAHA a.s.
- 09.00 - 09.15 **RECONSTRUCTION OF THE BRIDGE AT KM 0.989 ON THE LINE HAVLÍČKŮV BROD - PARDUBICE - ROSICE NAD LABEM**
Ing. Libor Kožík, Ing. Radek Vévoda, Ing. Petr Štasta, Ing. Gabriela Šoukalová; FIRESTA - Fišer, rekonstrukce, stavby a.s.
- 09.15 - 09.35 **RAILWAY TRESTLES ON THE SECTION OF THE MODERNISED LINE SUDOMĚŘICE - VOTICE**
Ing. Jiří Jirásko, Ing. Martin Vlasák; SUDOP PRAHA a.s.
- 09.35 - 09.55 **IMPLEMENTATION OF IMPORTANT BRIDGES ON THE MODERNISED RAILWAY LINE SUDOMĚŘICE - VOTICE**
Petr Novotný, Ing. Petr Zíb, Petr Zbraněk; OHLA ŽS, a.s.
- 09.55 - 10.10 **BRIDGE "PARAMO" - NEW RAILWAY BRIDGE ON THE LINE PARDUBICE ROSICE N/L - HAVLÍČKŮV BROD**
Ing. Jiří Jirásko; SUDOP PRAHA a.s.
- 10.10 - 10.30 **Bridges on D1106 Hradec Králové - Smiřice, realised by EUROVIA CS, a.s.**
Ing. Vladimír Dubšík; EUROVIA CS, a.s.
- 10.30 - 10.50 **Reconstruction of the bridge "Za Černým mostem Y502, Prague 9, action no. 999639"**
Ing. Petr Berník, Ing. Jan Kabelka, Ing. Jan Padrta; Metrostav Infrastructure a.s.
- 10.50 - 11.05 **STEEL-CONCRETE BRIDGES ON THE BYPASS OF FRÝDEK MÍSTEK, STAGE I.**
Ing. Jan Nováček, Ph.D., Ing. Antonín Pupík, Ing. Jan Pozdíšek, Ph.D.; Stráský, Hustý and partners s.r.o.

IV. Bridges in the Czech Republic - projects and realisations

- 11.05 - 11.25 **Reconstruction of the bridge over the Sázava River in Kácov - use of the digital construction model**
Ing. David Dvořáček, Ing. Jakub Zíma, Ing. Peter Bobáň, Ing. Štěpán Dvořák;
PONTEX, spol. s.r.o., Colas CZ, a.s.
- 11.25 - 11.40 **BRIDGE STRUCTURES ON THE NEWLY BUILT MOTORWAY D11 1107 SMIŘICE - JAROMĚŘ**
Ing. Miroslav Seidl; PRAGOPROJEKT a.s.
- 11.40 - 12.00 **Reconstruction of the D1 motorway overpass "Kaliště" - Ref. No. D1-031-SO220.2 - Steel structure**
Metrostav a.s.
- 12.00 - 12.20 **Bridging challenge on the bypass of Frýdek - Místek**
Ing. Roman Daniel; Strabag a.s.
- 12.20 - 12.35 **Bridge over the Morávka River on the D48 motorway**
Ing. Michal Jurík, Ph.D., Ing. Tomáš Dvořák, Ing. Antonín Pupík, Ing. Martin Liška;
Stráský, Hustý and partners s.r.o.
- 13.00 **Conclusion of the 27th MOSTY 2022 Symposium, lunch**