# The 12<sup>th</sup> Central European Congress on Concrete Engineering

31 August - 1 September 2017, Tokaj, Hungary

**TENTATIVE PROGRAMME** (Version 19 August 2017)

## **Innovative Materials and Technologies for Concrete Structures**

This Tentative Programme may be subjected to changes

http://www.fib.bme.hu/ccc2017.html

Wednesday, 30 August 2017	
00 00	Welcome drink in Tokaj – Cultural and Conference Complex

	Thursday, 31 August 2017	
	Session 1: Openi	ing of CC2017 Tokaj
-	Main Hall	
		Welcome by the <b>Major of Tokaj</b>
	$9^{00}$ - $9^{30}$	Opening speech, <b>György L. Balázs</b>
		Invitation to CCC2019, Jelena BLEIZIFFER and Nikola Miletić
Ì	9 <sup>30</sup> -9 <sup>45</sup>	Béla Csíki, Károly Kőszeghy, Zoltan Perczel
	9 -9	New type prefabricated water towers with prestressed mast
		Iztok Arnuga, Robert Schedler, Michael Fritsch
	$9^{45}$ - $10^{00}$	The longest integral bridge in Austria – A5.24 Bridge over the
		Satzengraben
		Jan L. Vitek, Robert Coufal, Jiří Kolísko, Radek Vašátko
1	$10^{00}$ - $10^{15}$	Modulus of elasticity – specification, acceptance criteria and
		influence on structural performance
	10 <sup>15</sup> -10 <sup>30</sup>	Marek Salamak, Artur Salachna, Piotr Łaziński
		Construction and load test of cable-stayed concrete tram bridge
		in Krakow
	$10^{30}$ - $10^{45}$	Galic Josip
	10 -10	Examples of advanced concrete structures in Croatia
	$10^{45}$ - $11^{15}$	Opening of Poster Session and Exhibition
	10 -11	Morning coffee break

Thursday, 31 August 2017	
Session 2: Topic 1. Tailored properties of concrete	
Chairmen:	
$11^{15} - 11^{30}$	Tamás Mészöly, Norbert Randl
11 -11	An advanced approach to derive the constitutive law of UHPFRC
11 <sup>30</sup> -11 <sup>45</sup>	Miquel Joseph, Zeger Sierens, Jeroen Massaer, Dylan Noppe, Jiabin Li, Luc Boehme Influence of the purity of recycled concrete aggregates on the mechanical properties of dry and self-compacting precast concrete

11 <sup>45</sup> -12 <sup>00</sup>	Olivér Czoboly, György L. Balázs
11 -12	Effect of mixing time to the properties of steel fibres and SFRC
	Egon Milost, Tadeja Kosec, Aljoša Šajna, Irina Stjipanović, Andraž
$12^{00}$ - $12^{15}$	Legat, Violeta Bokan Bosiljkov
12"-12"	Effect of supplementary cementitious materials on mortar properties
	and corrosion of steel in different environments
	Jiří Kolísko, David Čítek, Petr Tej, Milan Rydval
$12^{15}$ - $12^{30}$	Experimental pedestrian thin walled double curvature arch
	footbridge made of UHPFRC
	György L. Balazs, Tamás Simon, Tibor Kausay
$12^{30}$ - $12^{45}$	Hungarian application to the European concrete norm and
	Evaluation of the compressive strength of concrete
13 <sup>00</sup> -14 <sup>00</sup>	Lunch
$14^{00}$ - $17^{45}$	Poster session

Thursday, 31	Thursday, 31 August 2017	
Session 3: Topic 3. Advanced production and construction technologies		
Chairmen:	Chairmen:	
	Michael Olipitz	
$14^{00}$ - $14^{15}$	Small bridges up to 35 m span in UHPC construction - system	
	bridges with aesthetic requirements	
	Michael Kleiser, Wolfgang Lindlbauer, Dr. Helmut Huber	
$14^{15}$ - $14^{30}$	An ASFINAG pilot project for a watertight structure without	
	reinforcement for crack width control	
	Vítězslav Vacek, Miroslav Sýkora, Jiří Kolísko, Vladimir Vančík	
$14^{30}$ - $14^{45}$	Effect of design and execution on quality and durability of multi-	
	storey reinforced concrete parking garages	
$14^{45}$ - $15^{00}$	Herbert Weier	
14 -13	"Floating" Bridge, Production in Elevated Position	
$15^{00}$ - $15^{15}$	Árpád Orosz, János Nagy, Ernő Zábrádi, Aliz Horváth, Imre Répáczki	
13 -13	Foundation slabs supported by spot footing	
	Vedad Terzic, Reuf Kadrić	
$15^{15}$ - $15^{30}$	Application of Macro-synthetic-fiber-reinforced sprayed concrete	
13 -13	for primary lining support on Highway Tunnel Project in Bosnia	
	and Herzegovina	
	Kálmán Koris, István Bódi	
$15^{30}$ - $15^{45}$	Shear capacity of prestressed FRC beams with sparse stirrup	
	spacing	
$15^{45}$ - $16^{15}$	Afternoon coffee break	

Thursday, 31 August 2017	
Session 4: Topic 2. Advanced reinforcing and prestressing materials and technologies	
Chairmen:	
16 <sup>15</sup> -16 <sup>30</sup>	Vazul Boros, Balthasar Novák
	Adjustment of internal prestressing in existing structures – a case
	study
	Michael Huβ, Philipp Hadl, Viet Tue Nguyen
$16^{30}$ - $16^{45}$	Fiber distribution in beams by using an innovative steel fiber type
	<ul> <li>experimental investigations</li> </ul>
	Agnieszka Wiater
$16^{45}$ - $17^{00}$	Research on the lightweight concrete bridge deck slabs reinforced
	with GFRP composite bars

17 <sup>00</sup> -17 <sup>15</sup>	Tamás Nagy-György, Viorel Todea, Valeriu Stoian, Daniel Dan, Sorin Codruţ Floruţ
	Hybrid steel-concrete shear walls strengthened using high
	performance steel fiber reinforced cementitious composites
17 <sup>15</sup> -17 <sup>30</sup>	Efi Apostolidi, Konrad Bergmeister, A. Strauss, P. Winkler
	Innovative Perforated Steel Sheet Reinforcement: Corbel
	approach
	Cronje Bruwer
$17^{30}$ - $17^{45}$	Behaviour of multi-directional CFRP and uniformly-directional
1/**-1/	CFRP plate bonded to concrete by means of epoxy and a
	combination of epoxy and mechanical anchors
2000-2300	Congress Dinner

## **Thursday, 31 August 2017** – 14<sup>00</sup>-17<sup>45</sup>

## **Poster Session**

Poster Session is organized for the Poster presentations:

- 1. Posters are prepared and displayed by the authors at the Venue before the Opening of the Congress (before 9 o'clock Thursday, 31 Aug 2017)
- 2. Posters are presented by one of the authors in front of a Jury
- 3. Posters with Poster presentations are evaluated during the Closing

## Anikó Pluzsik, Mária Tóth, Tamás Pluzsik, Bálint Morlin

Experimental investigations of pullout behaviour of synthetic fibres

#### Jan Tichý, Bohuslav Slánský, Stanislav Ševčík

Optimizing of UHPC railing panels and their practical application

#### George C. Fanourakis

Evaluation of the creep coefficients of the fib 2010 and Rilem B4 concrete creep prediction models

## Wojciech Kubissa, Roman Jaskulski, Tamás Simon

Surface blast-cleaning waste as a replacement of fine aggregate in concrete

## **Cronje Bruwer**

Influence of unidirectional CFRP plate pull-off strength bonded to concrete by means of epoxy and a combination of epoxy and mechanical anchors

#### Zofia Szweda, Andrzej Śliwka

Predicting risk of corrosion of bridges made of concrete on portland cement and low alkali portland cement

## Tomasz Krykowski, Faustyn RECHA, Tomasz Jaśniok

The simulation of corrosion degradation of concrete specimen in stationary heat and moisture conditions

#### Andrzej Śliwka

The deformation of the ground caused by mining exploitation and the internal forces in freely supported bridge

## Craig M. Newtson, Ahmed J. Al-Basha, Brad D. Weldon

Compressive and flexural strengths of heat cured ultra-high performance concrete produced with local materials

#### Peter Paulík, Michal Bačuvčík, Ivan Janotka

Material properties of the oldest concretes used in bridge construction in Slovakia

#### Katarína Gajdošová, Róbert Sonnenschein

Long-term properties of FRP reinforcement

#### Monika Kaszubska, Renata Kotynia, Damian Szczech

Comparison of shear strength assessment according to Eurocode 2 and Model Code 2010 design procedures

## Miklós Gálos, Ákos Orosz, Kornél Tamás, János Péter Rádics

Modelling the aggregates for concrete additives via discrete element numerical simulation

## Zbyněk Keršner, Hana Šimonová, Petr Daněk, Petr Frantík, Martin Sedlmajer

Characterization of old/repairing structural concrete through mechanical fracture parameters

Vlastimil Bilek, David Pytlik, Marketa Bambuchova, Sabina Bonczkova, Martin Sedenka Comparison of mechanical properties and in particular the modules of elasticity of different concretes

#### Marek Salamak, P. Klikowicz

Various aspects of health monitoring systems in Polish concrete bridges

#### Yupeng Yang

Value-added recycling of waste concrete on a construction site

# Jiabin Li, Daguang Han, Yongwang Geng, Jianfeng Bai, Yupeng Yang, Chunli Ying, Hongyuan Li

Feasibility of on-site recycling and reuse of waste concrete in China – a case study

## Łukasz Krawczyk, Michał Gołdyn, Tadeusz Urban

Digital image correlation system in experimental investigation of concrete structures – capabilities and limitation

#### Waldemar Bober

Experimental prestressed shell by Waclaw Zalewski

## Slaven Katalinić, Anđelko Vlašić

Comparison of different calculation methods and models for mixed core-frame structural system

#### Marek Salamak, Mateusz Żarski

Integrated lifecycle analysis of a concrete bridge

#### Bartosz Piątek, Tomasz Siwowski

Research on the new CFRP prestressing system for strengthening of RC structures

#### Čechmánek René, Drdlová Martina, Boháč Martin

Fresh and hardened state of fibre concrete

## Zoltán Gyurkó, Rita Nemes, Anna Szijártó, Mohammed Abed

Effect of metakaolin and cellular concrete powder as supplementary material on compressive strength and frost resistance of normal strength concrete

## Radomir Pukl, Tereza Sajdlová, Károly Péter Juhász, Lóránt Nagy

Fibre reinforced concrete constitutive laws for numerical simulation

#### Zeger Sierens, Miquel Joseph, Jiabin Li, Luc Boehme

Early-age properties of recycled aggregate concrete – A state-of-the-art review

## Péter Schaul, Károly Péter Juhász, John Hammond

Numerical modelling of a precast fibre reinforced concrete track slab

## Péter Ludvig, Rocha V. V.

Characterization of Portland cement composites prepared by a dispersion of carbon nanotubes on cement particles

#### Piotr Łaziński

Forecasting of concrete modulus of elasticity on granite aggregate with the consideration of mechanical parameters of aggregate

#### Andrzej Śliwka, Katarzyna Domagała

Application of potentiostatic measurements according to PN-EN 480-14 in assessment of the efficiency of reinforcement protection against corrosion by concrete with addition of fly ashes

## Zsolt Roszevák, István Haris

Comparison of the realistic behaviour and the widely applied static models on different cast-in-situ RC joints

#### **Andreas Haus**

Combined Reinforcement – The effect of steel fibres for crack width limitation

## Viktor Hlavička, Éva Lublóy

Bonded anchors in thermally-damaged concrete

#### Zoltán Teiter

Spectacular structure in an economical way: cable-stayed bridge with arched pylons over the river Tisza

## Barbara Słomka-Słupik, Adam Zybura

Thaumasite formation in cement paste exposed for 4 days to ammonium chloride saturated water solution at ambient temperature and pressure

## Sándor Sólyom, György L. Balázs

Non-metallic reinforcement for concrete structures with different moduli of elasticity and surfaces

## Abdulkader El Mir, Salem G. Nehme, Ági Péity

Effect of maximum aggregate size on mechanical properties of high-strength concrete

## Éva Lublóy, Abdelmelek Nabil

Improved fire resistance by using different supplementary materials

#### Bartosz Pisarek, Czesław Machelski

Change of the grade line of bridges constructed with cantilever concreting technology

## Dalibor Sekulić, Mario Ille, Igor Džajić

Advanced RC structures with integrated monitoring sensors

## Tomislav Brozović, Tomislav Brozović, Tomislav Kišiček, Ana Mandić Ivanković

Static and dynamic response of damaged prestressed RC beams flexural strengthened with CFRP

Friday, 1 Sep	Friday, 1 September 2017	
Session 5: Topic 5. Modelling, design and codification		
Chairmen:		
8 <sup>15</sup> -8 <sup>30</sup>	Jelena Bleiziffer, Ivana Milić	
0 -0	Advances in bridge management systems	
8 <sup>30</sup> -8 <sup>45</sup>	Andor Windisch	
0 -0	New concept for design of concrete structures	
	Radomir Pukl, Vladimír ČERVENKA, Tereza SAJDLOVÁ, Jan ČERVENKA,	
8 <sup>45</sup> -9 <sup>00</sup>	Drahomír NOVÁK	
8 -9	Probabilistic study about uncertainties in predicting shear beam	
	cracking and failure	
	Michaela Kopp, Markus Vill	
$9^{00}$ - $9^{15}$	Shear load assessment of existing concrete bridges by nonlinear	
	FE-modelling	
	Peter Joachim Heinrich, Dirk Schlicke	
$9^{15}$ - $9^{30}$	Design of unreinforced mass concrete members with respect to	
	real structural behaviour	
	Károly Péter Juhász, Péter Schaul, Lóránt Nagy	
$9^{30}$ - $9^{45}$	Optimisation of TBM Tunnel in the Shanghai Metro Extension	
	using Macro Synthetic Fibre	
9 <sup>45</sup> -10 <sup>00</sup>	Péter Schaul, György L. Balázs	
9 -10	Shear design opportunities for synthetic reinforced concrete beams	
	George C. Fanourakis	
1000 1015	Validation of the fib 2010 and Rilem B4 models for predicting	
$10^{00}$ - $10^{15}$	creep in concrete	

	Tomasz PŁASZCZYK, M. Jasiński, Marek Salamak
$10^{15}$ - $11^{30}$	Visual programming and BIM technology in parametric concrete
	bridge modelling
$10^{30}$ - $11^{00}$	Morning coffee break

Friday, 1 September 2017		
Session 6: Topic 4. Advanced concrete structures		
Chairmen:	Chairmen:	
$11^{00}$ - $11^{15}$	Johannes Oppeneder, Lutz Sparowitz, Bernhard Freytag, Nguyen Viet Tue	
11 -11	Construction Concept for the Quickway System	
	Jan Biliszczuk , Paweł Hawryszków, Marco Teichgraeber	
$11^{15}$ - $11^{30}$	Structural Health Monitoring system of a concrete cable-stayed	
	bridge	
11 <sup>30</sup> -11 <sup>45</sup>	Benjamin Kromoser, Johann Kollegger	
11 -11	Construction of a thin walled concrete shell event canopy	
	Marta Wiśniowska, Krystyna Nagrodzka-Godycka	
$11^{45}$ - $12^{00}$	Design and construction of tilted walls in accordance with codes'	
11 -12	provisions on the example of the construction of the museum of the	
	second world war in Gdańsk	
12 <sup>00</sup> -12 <sup>15</sup>	Dubrovszky Gábor	
12 -12	Precast bridge girders to span 44 m	
	Elena Meteş, Dragoş Alupoaie, Sergiu Enache, Gavril Köllö,	
$12^{15}$ - $12^{30}$	Edward Petzek	
	VTR® - Modular bridge concept for skew intersections	
	Martin Schneider, Norbert Randl, Bernhard K. Hofer	
$12^{30}$ - $12^{45}$	Quantifying the effect of mixture properties of high performance	
12 -12	concrete overlays on adhesive bond to NSC substrates on the	
	basis of axial tensile tests	
12 <sup>45</sup> -13 <sup>15</sup>	Closing ceremony	
13 <sup>15</sup> -14 <sup>15</sup>	Lunch	

14 <sup>30</sup> -18 <sup>00</sup>	Technical Excursion
14 -10	New concrete structure for SAUSKA Winery in Tokaj

# **Congress Venue**

Tokaj – Cultural and Conference Complex

Tokaj, Serház Street 55.

GPS: 48.12641525268555 | 21.41019630432129



# **Congress Dinner**

Thursday, 31 August 2017, 20<sup>00</sup>-23<sup>00</sup>

Tokaj, Kossuth Square 15.

Tokaj, Serház Street 55.

GPS: 48.125617 | 21.408203





