

# Detailed Programme of the Symposium

## 25th October, Sunday

**18.00-19.00** **Registration**, Staszic Palace, Lobby, 1-st floor

**19.00** **Welcoming Cocktail**, Staszic Palace, The Hall Under the Dome, 3-rd floor

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## 26th October, Monday

**08.00-08.45** **Registration**, Staszic Palace, Lobby, 1-st floor

**08.45-09.00** **Official Opening of the Symposium**, The Mirror Hall (Sala Lustrzana)

chair **Andrzej M. Brandt and Jan Olek**

**09.00-09.45** **Keynote Lecture**

Retrofit of shear strength deficient RC beams with sprayed GFRP

Andrew J. BOYD, Nemkumar BANTHIA, Sidney MINDESS, *Canada*

**09.45-11.00** **Session 1. Construction problems in elements subjected to bending**

Study on the flexural behaviour of reinforced fibrous concrete beams

Rashid HAMEED, Anaclet TURATSINZE, Frédéric DUPRAT, Alain SELLIER, *France*

Round panel vs. beam tests toward a comprehensive and harmonic characterization of FRC materials

Fausto MINELLI, Giovanni A. PLIZZARI, *Italy*

The influence of steel fibres content and curing conditions on mechanical properties and deformability of reactive powder concrete at bending

Tomasz ZDEB, Jacek ŚLIWIŃSKI, *Poland*

**11.00-11.30** **Coffee break**

**11.30-13.10** **Session 2. Fibrous cement based composites (1)**

Interface bond characteristics between wood fibres and a cement matrix

Mercedes G. SIERRA BELTRAN, Erik SCHLANGEN, *The Netherlands*

Shear strength and ductility of beams reinforced with synthetic macro-fibers

Salah ALTOUBAT, Samer BARAKAT, Yazdanbakhsh ARDAVAN, Klaus-Alexander RIEDER, *UAE, USA, Germany*

The impact of amount and length of fibrillated polypropylene fibres on the properties of HPC exposed to high temperature

Izabela HAGER and Tomasz TRACZ, *Poland*

Assessment by law of mixtures approach of interfacial adhesion strength in cellulose-cement composites  
Conrado S. RODRIGUES, Piet STROEVEN, Khosrow GHAVAMI, *Brazil, The Netherlands*

**13.10-14.30 Lunch break**

**14.30-15.50 Session 3: Fibrous cement based composites (2)**

Tensile fatigue response of Sisal Fiber Reinforced Cement Composites  
Flavio de Andrade SILVA, Barzin MOBASHER and Romildo D. TOLEDO FILHO, *Brazil, USA*

Investigation on the strength and flexural toughness of hybrid fibre reinforced concrete  
Surinder Pal SINGH, *India*

Textile reinforced concrete - durability issues: changes of the bond and tensile strength due to ageing  
Till BÜTTNER, Jeanette ORLOWSKY and Michael RAUPACH, *Germany*

Impact study of textile reinforced cementitious materials: test method and preliminary results  
J. Van ACKEREN, J. BLOM, D. KAKOGIANNIS, J. WASTIELS, D. Van HEMELRIJCK, S. PALANIVELU, W. Van PAEPEGEM, J. DEGRIECK and J. VANTOMME, *Belgium*

**15.50-16.20 Tea break**

**16.20-17.20 Session 4: Fibrous cement based composites (3)**

The ductile behavior of HPFRCC in compression  
Alessandro P. FANTILLI, Hirozo MIHASHI, Paolo VALLINI, Bernardino CHIAIA, *Italy, Japan*

Investigation on random distribution of fibres in cement composites  
Tomasz PONIKIEWSKI, *Poland*

84 Permeability of SFRCC based on fine aggregate after pre-load cycles  
Jacek KATZER, *Poland*

**19.00 Symposium Dinner in the Restaurant *Przy Trakcie Restauracja Polska* Królewska Street 2, entrance from Krakowskie Przedmieście**

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**27th October, Tuesday,** Staszic Palace, 1-st floor, The Mirror Hall (Sala Lustrzana)

**09.00-09.45 Keynote Lecture**

Statistical optimization of low slump ternary concrete mixtures with ground granulated blast furnace slag (GGBS) and high calcium fly ash for pavement applications  
Adam RUDY, Jan OLEK, Tommy NANTUNG, Richard M. NEWELL, *USA*

## **09.45-11.00 Session 5. Properties of concrete with mineral additives**

Durability performance of Roller Compacted Concrete using fly ash

Jong-Pil WON, Chang-II JANG, Joon-Mo KIM, Wan-Young KIM, *Republic of Korea*

Analysis of the influence of the type, amount and the introduction way of anti-foaming admixture (AFA) on the properties of self-compacting concrete mix

Beata ŁAŻNIEWSKA-PIEKARCZYK, *Poland*

Model of concrete carbonation as limitable process – experimental investigations of fluidal ash concrete

Lech CZARNECKI, Piotr WOYCIECHOWSKI *Poland*

## **11.00-11.30 Coffee break**

## **11.30-13.10 Session 6. Properties of ceramics**

Modification of mineral binding matrixes carbon nanostructures

Grigory I. YAKOVLEV, Grigory N. PERVUSHIN, Jadviga K. KERIENE, Hans-Bertram FISCHER, Bernd MÖSER, *Russia, Lithuania, Germany*

Mechanical-acoustic and structural study of degradation processes in corundum ceramics and aluminous porcelain

Przemysław RANACHOWSKI, Zbigniew RANACHOWSKI, Feliks REJMUND, *Poland*

T-stress values during fracture in wedge splitting test geometries: A numerical study

Stanislav SEITL, Pavel HUTAŘ, Václav VESELÝ, Zbyněk KERŠNER, *Czech Republic*

How to get reliable 3D information on concrete porosity?

Piet STROEVEN, *The Netherlands*

## **13.10-14.30 Lunch break**

## **14.30-15.50 Session 7. Structure and properties of concrete**

Investigation of bond strength and flexural behavior of FRP strengthened beams using cement-based adhesives

Siavash HASHEMI and Riadh AL-MAHAIDI, *Australia*

Application of machine learning for prediction of concrete resistance to migration of chlorides

Maria MARKS, Daria JÓŻWIAK-NIEDŹWIEDZKA, MICHAŁ A. GLINICKI, *Poland*

Carbon spheres as possible micro-reinforcement of cement-based composites

Jan M. SKOWROŃSKI, Agnieszka ŚLOSARCZYK, *Poland*

109 Properties of fiber reinforced cement composites with cenospheres from coal ash

Waldemar PICHÓR, *Poland*

**15.50-16.20 Tea break**

**19.00 Museum of Polish Army, visit and reception**  
**Al. Jerozolimskie 3**

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**28th October, Wednesday,** Staszic Palace, 1-st floor, The Mirror Hall (Sala Lustrzana)

**09.00-09.45 Keynote Lecture**

Enhanced durability of concrete by superabsorbent polymers  
Hans W. REINHARDT , Alexander ASSMANN, *Germany*

**09.45-11.00 Session 9. Durability and degradation in concrete**

Volumetric stability of concrete using recycled concrete aggregates  
Yogini DESHPANDE, Jacob E. HILLER, Cory J. SHORKEY, *USA*

Damage assessment in sections for durability purposes: two arguments not to opt for automation

Piet STROEVEN, Huan HE, Martijn STROEVEN, *The Netherlands*

The effects of laser cleaning process on geometrical microstructure of cementitious composites

Agnieszka KLEMM, Poologanathan SANJEEVAN, Piotr KLEMM, *UK, Poland*

**11.00-11.30 Coffee break**

**11.30-13.10 Session 10. Testing methods for concrete**

Assessing the repeatability of the restrained ring test  
Aleksandra RADLINSKA, Jason WEISS, *USA*

Performance evaluation of rapid-setting materials for concrete pavements/bridge decks repairs: laboratory and a field perspectives

Prashant V. RAM, Jan OLEK, *USA*

The effect of temperature on the rheological properties of self - compacting concrete  
Jacek GOŁASZEWSKI, Grzegorz CYGAN, *Poland*

Assessment of the rheological properties of cement mixes using electrical resistance  
Dominik LOGOŃ, *Poland*

**13.10-14.30 Lunch break**

**14.30-15.50 Session 11. Microstructure and mechanical properties of concrete (1)**

Experimental techniques for multi-scale characterization of mechanical response in cement-based materials

Joseph J. BIERNACKI, *USA*

Influence of hydrothermal curing on microstructure and mechanical properties of ultra-high performance concrete

Patrick FONTANA, Christian LEHMANN, Urs MÜLLER, *Germany*

Patches in concrete: recent experimental discovery of a natural phenomenon - supporting evidence by DEM

Piet STROEVEN and Huan HE, *The Netherlands*

The influence of aggregate size on the width of fracture process zone in concrete members

Marta SŁOWIK and Ewa BŁAZIK-BOROWA, *Poland*

**15.50-16.20 Tea break**

**16.20-17.00 Session 13. Round Table discussion and closure**

chair **Andrzej M. Brandt and Jan Olek**

**19.00 Closing Banquet in the Restaurant *SENATOR*  
Old Town, Szeroki Dunaj Street 1/3**