

fib SYMPOSIUM - Paper Presentation Schedule

Monday, May 21st 2007, 10.00 – 13.00
Opening Session with Keynote Lectures

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|----------------------------|--|--|
| 1 | J. Radić | Concrete structures in Croatia - the legacy and contemporary projects |
| 15 min coffee break | | |
| 2 | H. R. Ganz | Post-tensioning in buildings - a technology with significant potential |
| 3 | G. Bertagnoli, G. Mancini & F. Tondolo | Early age behaviour of massive concrete piers |
| 4 | S. Helland | Coming CEN and ISO standard for the execution of concrete structures |

Hall Ragusa

Hall Bobara

Hall Orlando

Monday, May 21st 2007, 14.00 – 16.00
Session 1a; Symposium Topic 1
Concrete Structures Connecting Mainland and Islands - Bridges

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| 5 | J. Kollegger | New bridge construction method |
| 6 | B. Chen, J. Gao & L. Ye | Long-span concrete arch bridges in China |
| 7 | J. Beslać, D. Tkalčić & E. Barišić | Present state of Krk Bridge repair and protection |
| 8 | Z. Šavor, I. Gukov, J. Bleiziffer & G. Hrelja | Twin bridges across Rječina River canyon |
| 9 | A. Kasuga, H. Sakao, Y. Taira & M. Kuwano | Design and construction of double suspension structure |
| 10 | J. Radić, Z. Šavor, N. Mujkanović & A. Vlašić | Pašman Bridge design |
| 11 | J. Biliszczyk, W. Barcik, J. Onysyk, K. Sadowski & P. Prabucki | Concrete cable-stayed bridge along highway ring road of Wroclaw |
| 12 | S. Budić & Ž. Ljutić | Cetina motorway bridge – ecologically friendly construction |
| 13 | J. Radić, A. Kindij & A. Mandić | Jarun Bridge project – Zagreb city entrance |
| 14 | D. Janjic & J. Stampler | Computer aided wind design for long bridge crossings |

Monday, May 21st 2007, 14.00 – 16.00
Session 1b; Symposium Topic 3
New Materials

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| 30 | R. Shionaga, J. C. Walraven, J. A. den Uijl & Y. Sato | Tension stiffening of high performance fiber reinforced concrete |
| 31 | D. Redaelli & A. Muttoni | Tensile behaviour of reinforced ultra-high performance fiber reinforced concrete elements |
| 32 | T. Kišiček, Z. Sorić & M. Rak | Concrete beams with FRP reinforcement – experimental research |
| 33 | A. Meda, F. Minelli & G. A. Plizzari | On the flexural behavior of fiber reinforced concrete beams |
| 34 | D. Meštrović, D. Čizmar & V. Stanilović | Carbon fiber reinforced polymer used in concrete beams |
| 35 | R. Noor Mohamed & K. S. Elliott | The properties of steel fibres self-compacting concrete |
| 36 | W. Figeys, S. Ignoul, D. Doms, L. Schueremans, D. Van Gemert & G. De Roeck | Repair of impact damage in an industrial cylindrical shell |
| 37 | D. Tkalčić, D. Banić, M. Zupčić & Z. Perić | Prestressed hollow-core slabs - shear resistance test according to HRN EN 1168:2005 |
| 38 | I. Džajić, S. Pičulin & M. Rak | First prestressed ultra high performance concrete beam in Croatia |
| 39 | M. Skazlić, M. Jambrešić & M. Dujmušić | Conversion factors for testing strength of ultra high strength concrete |

| Monday, May 21 st 2007, 16.30 – 18.00 Session 2a; Symposium Topic 1 Concrete Structures Connecting Mainland and Islands - Bridges | | |
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| 119 | H. Corres Peiretti, J. Torrico Liz, J. Milián Mateos, A. Reig Pérez, J. Romo Martín & A. Pérez Caldentey | New bridge over the Tajuña River In Spain |
| 15 | D. Tkalčić, M. Zupčić, D. Novak & Z. Perić | Srijane viaduct on Bregana-Zagreb-Dubrovnik motorway |
| 16 | P. Sesar, M. Franko, D. Velan & A. Krečak | Design modifications of Sveti Kuzam interchange viaducts |
| 17 | Z. Marić | Aesthetic evaluation of bridges on new Croatian motorways |
| 18 | P. Sesar & T. Igrec | Problems and solutions of bridging over to the Pelješac peninsula |
| 19 | D. Kolić, N. Ayaydin & M. Edge | Feasibility of strait crossing solutions |
| 20 | J. Radić, Z. Šavor, G. Hrelja & M. Franetović | Some new overpasses on Croatian highways |

| Monday, May 21 st 2007, 16.30 – 18.00 Session 2b; Symposium Topic 3 New Materials | | |
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| 40 | I. Stipanovic, D. Bjegovic & M. Serdar | Durability properties of ecologically friendly concrete |
| 41 | C. Hoffmann, A. Bernard, A. Chabert & C. Neant | New generations of pre-stressing and post tensioning bars |
| 42 | V. Vimmr & M. Vimmr | Application of special products for concrete structures |
| 43 | V. Lacković, V. Šimić & J. Krolo | Influence of anisotropy to the mechanical properties of glass fibre reinforced polymer at multiaxial stress |
| 44 | B. Magyari & G. Tassi | Effect of non-metallic fibres on the concrete properties |
| 45 | P. Matulova & V. Petranek | Development of materials on the basis of industrial by-product for concrete structures rehabilitation |

Tuesday, May 22nd 2007, 9.00 – 11.00
Session 3a; Symposium Topic 2
Concrete Structures in Energy Production

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| 21 | P. Lenkei & A. Kovács | Concrete containment in the license renewal process of a nuclear power plant |
| 22 | K. Mavar, I. Par, M. Ille & A. Balagija | Nuclear power plant Mochovce, Slovakia, condition assessment contract – work organization and documentation flow aspects |
| 23 | E. Barisic, K. Stemberga & I. Petrak | Nuclear power plant Mochovce, Slovakia, condition assessment – inspection and testing aspects |
| 24 | N. Petrović, S. Uzelac & B. Tabak Parašić | Some technical measures controlling integrity and stability of gravity concrete dams |
| 25 | D. Tkalčić, M. Zupčić & Z. Perić | Design of tunnel and temporary concrete dam on HPP Lešće |
| 26 | D. Mikulić, I. Gabrijel & S. Uzelac | Calculation of temperature changes in mass concrete of hydro power plant |
| 27 | D. Tkalčić, D. Novak & D. Banić | Concrete structures in petrochemical industry |
| 28 | L. L. Borges, G. S. Melo, R. B. Gomes | RC flat slabs with rectangular columns, holes and shear reinforcement in punching |
| 29 | E. Seferović, M. Skazlić & M. Jambrešić | Repair works in dam stilling by using high performance concrete |

Tuesday, May 22nd 2007, 9.00 – 11.00
Session 3b; Symposium Topic 3
New Materials

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| 46 | K. Kopecskó & Gy. Balázs | Chloride ion binding of steam cured aluminates and cements |
| 47 | L. Terec, H. Szilagy, M. Filip, J. Domşa & A. Mircea | Properties of self-compacting concrete for precast industry |
| 48 | S. Watanabe & S. Suzuki | On drying shrinkage and creep property (included recovery creep) by difference in aggregate grain of artificial light-weight aggregate concrete |
| 49 | D. M. Bojović, K. S. Janković, Lj. B. Lončar, Z. D. Kačarević & A. M. Terzić | Sulphur concrete |
| 50 | H. Szilagy, L. Terec, J. Domşa & A. Mircea | Self-compacting concrete for the Romanian precast industry |
| 51 | D. Rosignoli | High ductility concrete with polymer fibers for bridge deck link slabs |
| 52 | S. Dubravac, D. Banić & M. Zupčić | Floor slabs – load bearing capacity test according to EN 12737 |
| 53 | J. M. Tobes, G. Giaccio, B. Barragán & R. Zerbino | Mortar-based design for self compacting concrete |
| 54 | A. López, J. M. Tobes, G. Giaccio, M. Positieri, A. Oshiro, R. Zerbino & B. Barragan | Design and characterization of coloured self-compacting concrete |
| 55 | F. Cassagnabère, M. Mouret, G. Escadeillas & P. Broilliard | Low CO2 binder: a solution for precast industry |

Tuesday, May 22nd 2007, 11.30 – 13.00
Session 4a; Symposium Topic 5
Durability, Inspection and Maintenance

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| 82 | S. L. Matthews | Concrete structure management – a whole-life issue for owners |
| 83 | G. Puž, M. Lovrinčević & I. Mlinarević | Concrete highway bridges operated by Hrvatske autoceste d.o.o. |
| 84 | K. Pucher & R. Pucher | Long concrete air ducts in road tunnels should be airtight – are they really? |
| 85 | Y. Komura, H. Imakado, M. Watanabe & Y. Nishigaki | Construction of Tsuchiya Bridge for long-term durability against chloride attack |
| 86 | D. Tkalčić & K. Dujmović | Supervision of Domovinski most over Sava River in Zagreb |
| 87 | S. Jakšić, T. Donadini & J. Brajdić | Supervision of Cetina River arch bridge construction |
| 88 | K. Mavar, D. Sekulić & D. Würth | Monitoring of Krk Bridge columns with interferometric fibre optic sensors |

Tuesday, May 22nd 2007, 11.30 – 13.00
Session 4b; Symposium Topic 4
Analysis

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| 56 | A. B. Ajdukiewicz, A. T. Kliszczewicz & M. Węglorz | Behaviour of pre-tensioned hollow-core slabs with in-situ concrete topping |
| 57 | M. de Araújo Ferreira, B. Catoia, M. Novischi Kataoka, R. Chust Carvalho & D. de Lima Araújo | Validation of analytical methods for the analysis of the flexural behaviour of precast beams with semi-rigid connections |
| 58 | A. E. K. Jones | In service behaviour of a post tensioned flat slab: theory and practice |
| 59 | M. Fernández Ruiz, A. Muttoni & E. Hars | Experimental investigation on the load-carrying capacity of thin webs including post-tensioning tendons |
| 60 | P. Presečki, M. Kovač & S. Pičulin | Modelling of one-way banded PT slabs using kinematic connections |
| 61 | D. Xu & Z. Wu | Slip between steel strands and PE sheathing in external monostrands at deviators |
| 62 | R. G. Delalibera & J. S. Giongo | Influence of the pile's rigidity on distribution of stress in two pile caps |

Tuesday, May 22nd 2007, 14.30 – 16.30
Session 5a; Symposium Topic 5
Durability, Inspection and Maintenance

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| 89 | J. L. Vitek | Serviceability of concrete structures |
| 90 | D. Tkalčić, D. Banić & M. Zupčić | Bridge condition assessment in Croatia |
| 91 | J-C. Dotreppe, B. Sciannamea & J-M. Franssen | Assessment of the behaviour of concrete structures affected by alkali-silica reaction |
| 92 | P. Sesar, Z. Banic & S. Pastorcic | Service life of concrete structures on Croatian roads |
| 93 | C. Bob, S. Dan, C. Badea, L. Iures & A. Gruin | Life assessment and structural rehabilitation for extreme actions |
| 94 | S. Škarić Palić, K. Mavar & A. Balagija | Repair of viaduct 'Anđeli' on highway A8 part from Matulji to Rogovići |
| 95 | A. Balagija, K. Mavar & S. Škarić Palić | Repair of overpass "Novska" on highway Zagreb-Slavonski Brod |
| 96 | M. Ille & K. Mavar | Rehabilitation of the bridge "Česma" on highway Zagreb-Slavonski Brod |
| 97 | Z. Perić, D. Banić & D. Tkalčić | Inspection and rehabilitation of hospital RC structure Fran Mihaljević |
| 98 | B. Briseghella, E. Siviero & T. Zordan | Attainment of a moment resisting structure through rehabilitation of a simply supported bridge |

Tuesday, May 22nd 2007, 14.30 – 16.30
14.30 – 16.30 fib Diploma for Research and Practice;
Awards ceremony and presentations

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| 14:30 – 14:35 | György L. Balázs | Introduction |
| 14:35 – 14:55 | Jonathan D. Shave | Shear assessment of concrete bridges: anchorage effects and use of plasticity |
| 14:55 – 15:25 | Jean-Marc Tanis | Presentation on Jean Muller |
| 15:25 – 15:45 | Steffen Grünewald | Performance-based design of self-compacting fibre reinforced concrete |
| 15:45 – 16:05 | Gopal Srinivasan | Design for construction, economy and elegance in concrete bridges |
| 16:05 – 16:25 | Eva Oller Ibars | Peeling failure in beams strengthened by plate bonding: a design proposal |
| 16:25 – 16:30 | György L. Balázs | Concluding remarks |

Tuesday, May 22nd 2007, 17.00 – 19.00
Session 6a; Symposium Topic 5
Durability, Inspection and Maintenance

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| 99 | B. Köberl & J. Kollegger | Application of a novel fatigue testing facility |
| 100 | K. Audenaert & L. Taerwe | Influence of passive reinforcement on creep and shrinkage of concrete: long-term experimental observations |
| 101 | S. Coccia, S. Imperatore & Z. Rinaldi | Influence of the corrosion on the serviceability limit state of reinforced concrete beams |
| 102 | P. Guiraud & F. Moulinier | Stainless steel reinforcement, a durable and economic solution against corrosion |
| 103 | T. Yamamoto, A. Hattori & T. Miyagawa | Shear behavior of RC beam deteriorated by corrosion of reinforcement |
| 104 | P. McKenna | Effect of controlled permeability formwork on concrete structures in marine environments |
| 105 | I. Šustić, A. Hranilović Trubić, R. Rosković, I. Jugović & S. Uzelac | Three different methods for concrete resistance to freezing and to deicing salts comparisons |
| 106 | N. Kamenić, T. Matusinović & J. Šipušić | Nondestructive characterization of cement material – application of parameters obtained from ultrasonic pulse |
| 107 | I. Pepenar | Durability of concrete structures in alkaline environments |
| 108 | H. Azamirad, M. Taghizadeh, A. Jodari Gholamzadeh, H. Alzamani & J. Kasaei | Principles of steel corrosion in concrete |

Tuesday, May 22nd 2007, 17.00 – 19.00
Session 6b; Symposium Topic 4
Analysis

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| 63 | V. G. Bardakis & M. N. Fardis | Linear vs. nonlinear seismic response analysis of concrete bridges |
| 64 | J. Radić, Z. Šavor & A. Mandić | New seismic requirements for bridge structures in Croatia |
| 65 | D. Tkalčić, D. Novak & M. Šavor | Silo reconstruction after dust explosion |
| 66 | J-C. Dotreppe & J-M. Franssen | Behaviour of concrete floors submitted to localized fires |
| 67 | X. Ruan, S-S. Wang & X-F. Shi | Analysis on local temperature effect in the piers of pre-stressed concrete continuous rigid frame bridge |
| 68 | P. Sesar, G. Trogrlić-Uzelac & A. Krečak | Wind loading and wind barriers |
| 69 | X. Shi, X. Ruan, X. Li & H. Ma | Failure analysis of two pre-stressed concrete bridges |
| 70 | F. Barre, J. Chataigner & D. Chauvel | Crack width prediction on thick concrete elements using EC2 code |
| 71 | S. Maly & H. Heidkamp | Modeling concrete in multiaxial compression and concrete fracture in large scale analysis |
| 72 | T. Nishido, R. Shionaga & Y. Moroyama | Thermal stress analysis considering solar radiation for concrete structures |

Wednesday, May 23rd 2007, 9.00 – 11.00
Session 7a; Symposium Topic 5
Durability, Inspection and Maintenance

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| 109 | J. L. Silfwerbrand | Technical demands for preventive bridge maintenance – a critical review |
| 110 | J. Radić, Z. Šavor, G. Puž, J. Bleiziffer & A. Balažić | Asset management system for Croatian motorways |
| 111 | D. Tkalčić, D. Banić, M. Zupčić & I. Par | Load testing of Domovinski most over Sava River in Zagreb |
| 112 | M. Medak, J. Radić, A. Kučer & I. Kalafatić | Dynamic load testing of the Bukovo viaduct |
| 113 | G. Moor & R. Reimann | Expansion joints with noise reduction – will recent developments become widespread across Europe? |
| 114 | D. Banić, Z. Perić & M. Zupčić | Load testing of Museum of contemporary art in Zagreb |
| 115 | D. Rako, F. Budi & K. Mavar | Durability of the non-constructive precast concrete products |
| 116 | H. Anton, D. Bjegović & I. Netinger | Reinforcement – nondestructive testing methods for determining its location and size |
| 117 | R. Geier, S. Hoffmann & J. Distl | Remote monitoring of bridge stay cables |
| 118 | S. N. Leonovich & D. Ju. Snezkov | Complex method of strength estimation of the monolithic reinforced concrete structures |

Wednesday, May 23rd 2007, 9.00 – 11.00
Session 7b; Symposium Topic 4
Analysis

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| 73 | M. Fernández Ruiz, A. Muttoni & O. L. Burdet | Computer-aided development of stress fields for the analysis of structural |
| 74 | A. N. Bambura, A. I. Davidenko & Y. S. Slyusarenko | Experimental and theoretical investigations of impact of biaxial stress |
| 75 | G. Bertagnoli, V. I. Carbone & G. Mancini | Local effects of coupling of prestressing tendons in structural joints |
| 76 | P. Sesar, T. Igrac & A. Krečak | Experimental analysis of girder connections for multispan beam bridges |
| 77 | M. A. Chiorino, M. Sassone, D. Bigaran & C. Casalegno | Effects of creep and shrinkage on the serviceability limit state |
| 78 | I. Kalafatić, J. Radić, M. Medak & A. Kučer | Calculation of stress-ribbon bridge prestressing |
| 79 | J. Onysyk & P. Hawryszków | A proof load test of the Millennium Bridge in Wrocław |
| 80 | D. Tkalčić, D. Banić, I. Par & K. Mavar | Repair of Popovača and Kutina overpasses |
| 81 | F. M. Almeida Filho, A. L. H. C. El Debs & M. K. El Debs | Evaluation of the numerical response of the bond behavior in the beam test model |