THEME 1 Existing Concrete Structure: Repair, Rehabilitation, Retrofitting

10. Nonlinear damage indicators from modal data of reinforced concrete structures
Srinivas Voggu, Saptarshi Sasmal and *K. Ramanjaneyulu*

Full-length paper

Summary paper

11. Damages in concrete road tunnels and their diagnostics
Jan Kucharík and *Ľubica Chalániová*

Full-length paper

Summary paper

12. Cyclic loading and corrosion effect on RC structural elements
Luca Giordano, Giuseppe Mancini and *Francesco Tondolo*

Full-length paper

Summary paper

13. Structural monitoring and modal properties of a real time bridge and lab tests
Rene Veerman and *Eddie Koender*

Full-length paper

Summary paper

14. Prediction of cracking in massive concrete structures by numerical simulations
Farid Benboudjema, Matthieu Briffaut, Aveline Darquennes and *Adrien Hilaire*

Full-length paper

Summary paper

15. Durability of concrete structures applied with hydrophobic impregnations
Michel Donadio and *Seng Chee Toh*

Full-length paper

Summary paper

16. Corrosion-damaged reinforced concrete T-beams strengthened in shear with embedded through-section carbon fibre-reinforced polymer rods
Shunde Qin, Samir Dirar and *Andrew Chan*

Full-length paper

Summary paper

17. Flexural performance of pretensioned prestressed concrete beams having ruptured strands strengthened by CFRP sheets
Thi Thu Dung Nguyen, Koji Matsumoto, Tadahiko Tsutsumi, Yuji Sato, Asami Iwasaki and *Junichiro Niwa*

Full-length paper

Summary paper

18. Experimental and theoretical studies on the influence of additional external prestressing on the shear capacity of continuous prestressed concrete beams
*Martin Herbr*and and *Josef Hegger*

Full-length paper

Summary paper

19. 100th anniversary of reinforced concrete ‘centennial hall’ in WrocŁaw (1913–2013)
Jerzy Onysyk, Jan Biliszczuk, Przemysław Prabucki, Krzysztof Sadowski and *Robert Toczkiewicz*

Full-length paper

Summary paper

THEME 2 Codes of Practices for General Use and Special Applications

50. Analysis of a thin walled RC roof structure with an arbitrary quadrilateral shape
Indrajit Chowdhury and *Jitendra Pratap Singh*

Full-length paper

Summary paper

51. Integral bridges: Design principles and sustainability
Tiju Zachariah and *Gajanan Wagle*

Full-length paper

Summary paper

52. Concrete equivalent performance concept for durability — An operational guide for the comparative approach
Lionel Linger, Emmanuel Roziere, Francois Cussigh, Patrick Rougeau and *Ahmed Loukili*

Full-length paper

Summary paper

53. Shear analysis and experimental research programme on anchorage criteria in RC slabs: Comparisons between FIBMC 2010 and NBR6118
*Fern*and*o Stucchi, Marcelo Ungaretti, Gilson Fujji* and *Matheus Marquesi*

Full-length paper

Summary paper

54. Designing sustainable concrete on the basis of equivalence performance: Assessment criteria for safety
Jeanette Visser and *Agnieszka Bigaj-Van Vliet*

Full-length paper

Summary paper

55. Punching in post-tensioned concrete flat slabs with edge columns
Vladimir Barban and *Guilherme Melo*

Full-length paper

Summary paper

56. Evolution of effective non-invasive retrofitting strategies for gravity load designed beam–column sub-assemblages under seismic loading
Saptarshi Sasmal, V. Srinivas and *K. Ramanjaneyulu*

Full-length paper

Summary paper

57. Sustainability of precast structures
*David Fern*and*ez-Ordoñez, Javier Angel Ramirez Masferrer* and *Beatriz Gonzalez Rodrigo*

Full-length paper

Summary paper

58. Prediction of compressive strength through accelerated curing
Manmohan Singh, Kulwant Singh, Manwinder Singh and *Kuldip Singh Takshi*

Full-length paper

Summary paper

59. Shear load capacity of concrete floor slabs with integrated utility ducts and the possibility of alternative reinforcement elements
Christian Keil and *Catherina Thiele*

Full-length paper

Summary paper

69. Application of global safety formats from model code 2010 for design and structural assessment by non-linear analysis
Jan Cervenka, Vladimir Cervenka and *Radomir Pukl*

Full-length paper

Summary paper

70. Improving the L/D method
Charles Goodchild, Robert Vollum and *Rod Webster*

Full-length paper

Summary paper

71. Appropriate creep and shrinkage model of HPC for improved life-cycle design
Banti A. Gedam, Akhil Upadhyay and *N. M. Bhandar*

Full-length paper

Summary paper

72. Shear capacity of concrete bridge decks – a contribution to sustainability
Guenter Rombach, Matthias Kohl and *Lukas Henze*

Full-length paper

Summary paper

73. The primary design conceptions of concrete and reinforced concrete structures in the ADM model code
Vitalii Mitrofanov, Natalia Pinchuk and *Pavel Mitrofanov*

Full-length paper

Summary paper

74. Bond and anchorage of embedded steel reinforcement in the *fib* model code
John Cairns

Full-length paper

Summary paper

75. A comparison of finite element solutions for 2-D reinforced concrete structures
Diego Lorenzo Allaix, Gabriele Bertagnoli, Vincenzo Ilario Carbone and *Giuseppe Mancini*

Full-length paper

Summary paper

76. Cracking in reinforced concrete panels: experimental results from the project CEOS. FR and preliminary interpretation based on cracked membrane model
Philippe Bisch, Silvano Erlicher, Miquel Huguet, Gianluca Ruocci and *Tong Jiang*

Full-length paper

Summary paper

77. Service life design — Field studies and laboratory studies
Vir Vikram Arora and *Satish Sharma*

Full-length paper

Summary paper

78. Investigations on recycled aggregate geopolymer concrete with quarry dust
Revathi Purushothaman, Lavanya K and *Ramesh R. A*

Full-length paper

Summary paper

119. Construction of approaches to Signature Bridge at Wazirabad, Delhi
Rajesh Patel, Shailesh Patil, Prajwal Dittekoppa and *Arvind Singh*

Full-length paper

Summary paper

120. Construction of Eastern Freeway: Section from museum to Anik near Bhakti Park in Mumbai
Devdatta Athavale and *Dattatraya Kanhere*

Full-length paper

Summary paper

121. Precast tunnel segments reinforced with fibreglass bars
Alberto Meda, Zila Rinaldi and *Simone Spagnuolo*

Full-length paper

Summary paper

122. Design and construction of India's longest elevated corridor
Rajkumar Das and *Anbu Thomas Samuel*

Full-length paper

Summary paper

123. Elevated circulatory at Padhi, Chennai, India
Subhashchandra Joglekar, A. T. Samuel and *N. J. Wesley*

Full-length paper

Summary paper

124. Probabilistic approach to design for durability — An appropriate tool for improving performance of concrete structures
Michael Vogel and *Harald S. Müller*

Full-length paper

Summary paper

125. 280 m long three span road bridge with 160 m central span over River Chenab
R. B. S Guliani and *S.A. Reddi*

Full-length paper

Summary paper

126. Spliced girder bridge application and design
Florian Aalami and *Bijan Aalami*

Full-length paper

Summary paper

127. Viaduct for the high speed railway over the River Ulla (Spain)
Jose Mª Villar, Andres Del Valle and *Jose M. Simon-Talero*

Full-length paper

Summary paper

128. Dynamic response of road bridge piers under earthquake with coupled soil structure interaction
Indrajit Chowdhury and *Prosenjit Datta*

Full-length paper

Summary paper

139. Development of pre-stressed concrete sleeper for higher axle load on Indian Railways
Subodh Jain, Ajay Singhal and *Rajeev Verma*

Full-length paper

Summary paper

140. Obligatory spans in Inderlok to Mundka corridor of Metro Project at Delhi
Narsh C. Jain and *Amit Chakraborty*

Full-length paper

Summary paper

141. New bridges of the Deutsche Bahn: Integral and semi-integral railway bridges for high speed trains
Mike Schlaich, Arndt Goldack and *Thomas Fackler*

Full-length paper

Summary paper

142. Construction of road under bridge at Alugaddabavi, Secunderabad, by box pushing technique in South Central Railways
V. S. Rama Raju M. and *Anu Kankane*

Full-length paper

Summary paper

143. Construction of new rail link from Edapalli to Vallarpadam (ICTT) at Kochi for RVNL
R.. Anantakumar, P. S. Bansod, Madhusudan Birhade and *Vivek Abhyankar*

Full-length paper

Summary paper

144. Marine concrete structures
Tor Ole Olsen

Full-length paper

Summary paper

145. Shaping of concrete viaducts on loop ramps of an urban interchange with standard falsework systems
Janusz Holowaty

Full-length paper

Summary paper

146. Numerical study on axial compression of concrete filled plastic tubes
Pramod Kumar Gupta and *Virendra Verma*

Full-length paper

Summary paper

147. Life cycle assessment of repair and maintenance solutions for cooling towers
Michel Donadio, Clara Fiuza and *David Taylor*

Full-length paper

Summary paper

148. Construction of concrete bridges using reinforcement made of low level radioactive steel
Peter Paulík, Michal Pánik and *Vladimír Nečas*

Full-length paper

Summary paper

149. Design and engineering of the world's tallest natural draught cooling towers (202 m high) at Kalisindh thermal power project India
Parag Patni, Jyoti Asrondkar, Suyog Dhongade and *Abhijit Niphade*

Full-length paper

Summary paper

150. Design and construction issues for water intake system for different ground situations
Anirban Sengupta

Full-length paper

Summary paper

151. Development of concrete technology for natural draught cooling towers in India, its present and future
*Chander R. Alimch*and*ani, Subhashchandra G. Joglekar* and *Shriram N. Patwardhan*

Full-length paper

Summary paper

152. Design and construction of 1:4 scale test model to simulate prestressed concrete containment of Tarapur atomic power project, India
S. G. Joglekar, R. K. Singh and *Raghupati Roy*

Full-length paper

Summary paper

153. Crack and leakage behaviour of a prestressed concrete containment wall: The PACE- Experiment
Nico Herrmann, Harald S. Müller, Christoph Niklasch, Sylvie Michel-Ponnelle, Christophe Bento and *Yann Le Pape*

Full-length paper

Summary paper

154. Application of zero slump concrete in pavement and dam structures
Bhaskara Sivarama Sarma and *Somasundaram Manohar*

Full-length paper

Summary paper

155. Materials and mix design studies for the high paste roller compacted concrete (RCC) of middle Vaitarna Dam, India
Vijaykumar Ashtankar

Full-length paper

Summary paper

156. Durability of concrete in sulphuric acid environment
Mohamad Hajj Chehade, Patrick Rougeau, François Jacquemot and *Léonardo Caselli*

Full-length paper

Summary paper

157. Challenges involved in design and construction of 275 m tall RCC chimneys
Vinay Gupta

Full-length paper

Summary paper

THEME 5 Pre-cast Concrete Structures

THEME 6 Steel-Concrete Hybrid Structures

THEME 7 Earthquake Engineering (General Aspects)

THEME 8 Improving Understanding of Currently Used Materials

215. Formation of a new hybrid material of textile reinforced concrete and glass fibre reinforced plastic
Henrik Funke, Sandra Gelbrich and *Andreas Ehrlich*

Full-length paper

Summary paper

216. Study on improving the performance of concrete sleeper by implementing poly-propylene fibre
Ali Akbar Ramezanianpour and *Seyed Ali Ghahari*

Full-length paper

Summary paper

217. Improving mechanical and durability performance of fibre reinforced concrete for industrial ground floor slabs
Jose A. Ortiz-Lozano, Alejandro Meza-deLuna, Lorenzo Peralta-Jaime, Jesus Pacheco-Martinez, Juan J. Soto-Bernal, Sabas H. Rangel-Martinez and *Raudel Padilla-Ceniceros*

Full-length paper

Summary paper

218. Examination of the structural behaviour of filigree GFRP-reinforced concrete slabs under bending
Andreas Schmitt and *Matthias Pahn*

Full-length paper

Summary paper

219. Effect of different types of load tests on impact resistance of fibre reinforced concrete specimens
Stanislav Rehacek, Petr Hunka, Jiri Kolisko and *Petr Bouska*

Full-length paper

Summary paper

220. Response of basalt fibre reinforced concrete two span beams with flexural and shear steel reinforcement
Andrzej Lapko and *Julita Krassowska*

Full-length paper

Summary paper

221. Fatigue behaviour of fibre reinforced concrete
Kerstin Elsmeier and *Ludger Lohaus*

Full-length paper

Summary paper

222. Performance of polyester fibres as secondary reinforcement in cement concrete
Manmohan Singh, kulwant Singh, Manwinder Singh and *Kuldip Singh Takshi*

Full-length paper

Summary paper

223. Crack initiation and propagation in concrete by digital image correlation
Gregor Fischer, Kasper Munk Mortensen and *Parisa Shokouhi*

Full-length paper

Summary paper

224. Russian experience in non-metallic composite reinforcement production and use
Vyacheslav Falikman, Valentina Stepanova and *andrei Bouchkin*

Full-length paper

Summary paper

THEME 11 High Performance and Ultra High Performance Concretes

THEME 12 Other Topics