

CONSEC'04

FINAL PROGRAM

Fourth International Conference on Concrete under Severe Conditions: Environment and Loading



June 27 – July 1, 2004

Lotte Hotel Seoul-Jamsil, Seoul, Korea



Seoul National University



Korea Concrete Institute

<http://conlab.snu.ac.kr/consec04>

CONSEC'04 ORGANIZATION

The 4th International Conference on Concrete under Severe Conditions of Environment and Loading (CONSEC'04) will be held at Lotte Hotel-Seoul Jamsil, Seoul, Korea from June 27 ~ July 1, 2004. Since 1995, the series of International Conferences on Concrete under Severe Conditions of Environment and Loading has taken place in different parts of the world on a tri-annual basis. The last CONSEC'04 was held in Vancouver, Canada in 2001. The purpose of this fourth conference on Concrete under Severe Conditions (CONSEC'04) is to present and publish recent developments on this subject, and to continue the transfer of advanced technologies as widely as possible.

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CONSEC'04 Final Program – June 27-30, 2004

SUNDAY, JUNE 27, 2004

15:30 – 20:00 p.m. REGISTRATION Lotte Hotel-Seoul Jamsil, 3rd Floor Foyer

MONDAY, JUNE 28, 2004

08:30 – 18:00 REGISTRATION Lotte Hotel-Seoul Jamsil, 3rd Floor Foyer

09:00 – 09:25 OPENING CEREMONY 3rd Floor Crystal Ballroom

09:25 – 11:10 KEYNOTE SESSION 3rd Floor Crystal Ballroom

Durability Modeling Based on Fracture, Diffusion, Chemomechanics and Creep: Recent

Advances: Z.P. Bazant (Northwestern University)

Durability Design and Construction Quality of concrete Structures:

O.E. Gjrv (Norwegian University of Science & Technology)

Concrete and Environmental Issues: K. Sakai (Kagawa University)

11:10 – 11:40 COFFEE BREAK 3rd Floor Foyer

11:40 – 12:52 PARALLEL SESSIONS 3rd Floor

11:40 - 12:52 SESSION M1A: Durability I Room A

Chairmen: F. Toutlemonde, LCPC

C.S. Poon, The Hong Kong Polytechnic University

Towards the Development of Sustainable Exposed Concrete:

N.A. Hendriks (Eindhoven Univ. of Technology)

Enhanced Durability Properties of Concrete Cover by Application of Controlled Permeability

Formwork in Hot and Humid Exposure:

C. Fontenay (COWI-Almoayed Gulf) & M.G. Srensen (Fibertex A/S)

Chemical and Physical Degradation of Cement Paste Caused by Acid Rain:

M. Hisada & H. Kawano (The Public Works Research Institute)

Deterioration Resistant Coefficient Based on Flexural Strength Ratio and its Applications in

Assessing the Effects of Concrete Additive Agents and Mineral Admixtures on Sulfate Attack:

D. Yang, J. Zhou, C. Shen & T. Zhang (Logistical Eng. University)

11:40 - 12:52 SESSION M1B: Life-Cycle Design Room B

Chairmen: D. Galeota, University of L'Aquila

M. Ishikawa, Tohoku-gakuin University

Development of Service-Life Prediction Models:

D. Bjegovic, J. Radic & I. Stipanovic (University of Zagreb)

Life Cycle Design of Concrete Structures:

O.E. Gjrv(Norwegian University of Science&Technology)

Quantitative Assessment on the Service Life of Land Concrete in Chloride-Laden Environment:

W.Y. Jung (Dong Il Engineering Consultants Co.), Y.M. Sohn (Kum Ho Engineering Co.), Y.S. Yoon (Korea University)

Effect of Curing Conditions on the Chloride Diffusion into Concrete and Implications on Service Life Prediction in Persian Gulf Region:

M. Ghalibafian, P. Ghods, R. Alizadeh, M. Hoseini, M. Chini, Sh. Montazer (University of Tehran)

14:00 - 15:30	SESSION T3E: Shear & Torsion Strength II Charimen: K. Bergmeister, BOKU Univ. of Natural Resources & Applied Life Sc. T. Hara, Tohoku College of Technology	Room E
<p>The Simplified Truss Model for Shear Carrying Capacity Analysis of Prestressed Concrete Beams Without Transverse Reinforcement: M. Lertsamattiyakul & J. Niwa (Tokyo Institute of Technology), S. Tamura & Y. Hamada (DPS Bridge Works Co., Ltd.)</p> <p>Shear Strengthening with Bonded CFRP L-Shaped Plates: M. Basler (Sika Services AG), K.S. Kang (Sika Korea Ltd.)</p> <p>Experimental Study on the Shear Behavior of Deep Beams Indirectly Loaded by Transverse Beams: J.S. Lee, S. Kono & F. Watanabe (Kyoto University)</p> <p>Shearing Property of Reactive Powder Concrete: B. Shan, Z. Huang & Y. Xiao (Civil Engineering College of Hunan University)</p> <p>Applicability of Superposition Method for Estimating Shear Strength of Reinforced Concrete Beams with a Small Amount of Web Reinforcement: S. Piyamahant & H. Shima (Kochi University of Technology)</p> <p>Shear Strength Prediction of Steel Fiber-Reinforced Concrete Deep Beams: S.H. Cho (Kwangju University), Y.I. Kim (Kwangdong University)</p>		
15:50 - 16:20	COFFEE BREAK	3rd Floor Foyer
16:20 - 18:10	PARALLEL SESSIONS	3rd Floor
16:20 - 18:10	SESSION T4A: Special Structures Charimen: K.J. Byun, Yonsei University T. Yamamoto, Daido Institute of Technology	Room A
<p>Effects of Temperature Arising from Microwave Curing on the Interface Between Reinforcing Wire Mesh and Mortar of Ferrocement Secondary Roofing Slabs: K.C.G. Ong, C.P. Teo & C.T. Tam (National University of Singapore)</p> <p>Using Precast Concrete Pavement Under Severe Congested Traffic Condition: L.M. Chang, S.W. Lee & Y.T. Chen (Purdue University) (Invited Paper)</p> <p>The Challenge of Designing Concrete for an Offshore Structure in Severe Sub-Arctic Conditions: B. Marsh (Arup Materials Consulting)</p> <p>Liquid Tightness Design of LNG Storage Tank Incorporating Cryogenic Temperature-Induced Stresses: S. J. Jeon, B. M. Jin & Y. J. Kim (Daewoo Institute of Construction Technology), C.H. Chung (Dankook University)</p> <p>Durability Analysis and Performance of Concrete Barges: V. Årskog (Alesund University College), M. Ferreira (University of Minho), O.E. Gjorv (Norwegian University of Science & Technology)</p> <p>Multi-Step Caisson Production Method on the Single Line-Up Casting Bed: K.S. Kim, C.W. Sim, W.P. Lee & J.M. Park (Hyundai Engineering and Construction Co. Ltd.)</p>		
16:20 - 18:10	SESSION T4B: Strengthening Techniques II Chairmen: F. Zhang- Earthquake Disaster Mitigation Research Center H.S. Lee, Korea University	Room B
<p>Application of External Post-Tensioning for Strengthening of Headstocks (Bent-Caps) in Bridges: T. Aravinthan, E. Sabonchy & T. Heldt (University of Southern Queensland)</p> <p>Punching Shear Capacity of Reinforced Concrete Slabs Strengthened by Bottom Thickness Increasing Method: H. Higashiyama (Kinki Univ.), S. Matsui (Osaka Univ.), H. Matsumoto (MAGNE Chemical Co. Ltd.)</p>		