

Program

Advanced Materials for Construction of Bridges, Buildings and other Structures- III

September 7-12, 2003
Davos, Switzerland

Conference Chair:

Mr. Vasant Mistry
Federal Highway Administration, USA

Conference Co-Chairs:

Mr. John Hooks
Federal Highway Administration, USA

Dr. Atorod Azizinamini
University of Nebraska-Lincoln, USA

Professor Giuliano Augusti
La Sapienza University-Rome, Italy

Dr. Fumio Watanabe
Kyoto University, Japan

Mr. Holger Svensson
Leonardt, Andrae, and Partner GmbH, Germany

ECI

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Sunday, September 7, 2003

17:00 – 18:30	Conference Registration
18:30 – 19:00	Welcome Reception
19:00 – 21:00	Dinner and Welcoming Remarks
21:00 – 22:00	Opening Reception

Monday, September 8, 2003

07:00 – 08:15 **Breakfast**

Morning Session

Lincoln
Session Chairs: Dr. Atorod Azizinamini, University of Nebraska-
Mr. Holger Svensson, Leonardt, Andrae and Partner GmbH

08:30 – 08:50 **Conference Welcome, Introductions, and Conference Overview**
Vasant Mistry, Conference Chair
U.S. Federal Highway Administration
Committee
Dick Fein, Engineering Conferences International Conference

08:50 – 09:25 **Keynote Speech**
“High Performance Materials in Future Bridge Construction”
Dr. Man Chung Tang
T.Y. Lin International, USA

09:25 – 09:50 **“FRP Bridge application in the United States”**
John Hooks
U.S. Federal Highway Administration

09:50 – 10:20 **Coffee/Tea Break**

10:20 – 10:45 **“High Performance Steel for Highway Bridges”**
Vasant Mistry
U.S. Federal Highway Administration

10:45-11:10 **“High Performance Steel Cost Comparison Study”**
Atorod Azizinamini
University of Lincoln, Nebraska

11:10 – 11:35
plates”
“Strengthening of concrete structures with prestressed CFRP
Hans-Peter Andra
Leonardt, Andra and Partner

11:35 – 12:00 **“Interface behavior in FRP plates bonded to concrete”**
Enzo Martinelli
University of Salerno

12:00 – 12:15 **Discussion**

12:30 – 13:30 **Lunch**

13:30 – 19:00 ***Ad hoc sessions, Networking, Free Time***

19:00 – 20:30 **Dinner**

20:30 – 21:30 **Social Hour**

Tuesday, September 9, 2003

07:00 – 08:15 **Breakfast**

Morning Session

Session Chairs: Mr. Vasant Mistry, U.S. Federal Highway Administration
Dr. Fumio Watanabe, Kyoto University

08:30 – 09:00 **Keynote Speech**
“Reality of today of High Performance Materials as Construction Materials”
Mr. Ray McCabe
HNTB Corporation, USA

09:00 – 09:25 **“Steel Bridge System – Simple for Dead Load, Continuous for Live Load”**
Atorod Azizinamini
University of Nebraska – Lincoln

- 09:25 – 09:50 **“Histar High Performance Hot-Rolled Beams”**
Lucien Weber
Arcelor Long Commercial
- 09:50 – 10:20 Coffee/Tea Break
- 10:20 – 10:45 **“Evaluation of best practices with High Performance Steel for bridges”**
Tim Huff
Tennessee Department of Transportation, USA
- 10:45 – 11:10 **“High Performance Concrete for the Luckenberger bridge”**
Hans-Peter Andrae
Leonhardt, Andrae and Partner
- 11:10 – 11:35 **“High Performance Concrete in Germany – first application for a major bridge”**
Wolfgang Eilzer Leonhardt, Andra and Partner
- 11:35 – 12:00 **“Seismic Retrofit of RC buildings by self-jointing precast prestressed concrete brace system”**
Fumio Watanabe
Kyoto University
- 12:00 – 12:15 **Discussion**
- 12:30 – 13:30 **Lunch**
- 13:30 – 19:00 **Ad hoc sessions, Networking, Free Time**
- 19:00 – 20:30 **Dinner**
- 20:30 – 21:30 **Social Hour**

Wednesday, September 10, 2003

- 07:00 – 08:45 **Breakfast**
- 09:00 – 15:00 Optional Excursion: **“Three Bridges Tour”**
Box Lunch will be provided.
Please see the information for the Bridges Tour.
- 15:00- 19:00 **Ad hoc sessions, Networking, Free Time**
- 19:00 – 20:30 **Dinner**
- 20:30 – 21:30 **Social Hour**

Thursday, September 11, 2003

07:00 – 08:15

Breakfast

Morning Session

Session Chairs: Mr. John Hooks, Federal Highway Administration
Dr. Atorod Azizinamini, University of Lincoln,
Nebraska

08:30 – 09:00

“Variable Engagement model for the design of Fiber Reinforced Concrete”

Stephen Foster
The University of New South Wales

09:00 – 09:25

“Optimum Design of a Pultruded FRP Bridge Deck”

Hyeong-Yeol Kim
Hanyang University

09:25 – 09:50

“Reliability analysis on flexural behavior of FRP Bridge Decks”

Sang-Mo Jeong
Handong Global University

09:50 – 10:20

Coffee/Tea Break

10:20 – 10:45

“Cyclic loading tests on column foundation connection assembled by Post-Tensioning”

Minehiro Nishiyama
Kyoto University

10:45 – 11:10

“Repair of reinforced concrete beams undergoing reinforcement corrosion using composites”

M. Jamal Shannag
Jordan University of Science and Technology

11:10 – 11:35

“The effect of particle size and surface area of aggregate on Geopolymer”

Christine Isabella
The University of Melbourne

11:35 – 12:00

“Effect of different supplementary cementitious materials on the microstructure and resistance of concrete against chloride penetration”

Vinay S. Nikam
Con-Tech Consultant

12:00 – 12:15

Discussion

12:30 – 13:30

Lunch

13:30 – 19:00

Ad hoc sessions, Networking, Free Time

19:00 – 20:30

Dinner

20:30 – 21:30

Social Hour

Friday, September 12, 2003

07:00 – 08:15

Breakfast

Morning Session

Session Chairs: Mr. John Hooks, Federal Highway Administration
Dr. Fumio Watanabe, Kyoto University

08:30 – 09:00

“Development of seismic members using ductile fiber cement composites”

Makoto Maruta
Kajima Technical Research Institute

09:00 – 09:25

“Development of GFRP decks for highway bridges in Korea”

Hyeong-Yeol Kim
Korea Institute of Construction Technology

09:25 – 09:50	“Early results of the U.S. Federal Highway Administration Ultra-High Performance Concrete Research Program” Agah Durukal Lafarge
09:50 – 10:20	Coffee/Tea Break
10:20 – 10:45	“High Performance Cast Steel Nodes for Tubular Trusses” Dipl.-Ing. Volkhart Angelmaier Leonhardt, Andra and Partner
10:45 – 11:10	“A study of space truss structure using glass fiber reinforced plastics” Hiroya Haigo Obayashi Corporation
11:10 – 11:35	Conference wrap-up and discussions
12:00	Lunch and Conference adjournment