IABSE co-sponsored conferences

7. IABSE Co-sponsored Conferences

Transport Research Board Conference
St. Louis, MO, USA, Sep 25 - 27, 1978
Bridge Engineering Conference

During the past several decades an impressive amount of research has been conducted in the development of new materials and technology to design, construct, and maintain vehicular bridges. Much has been learned about these complex problems and should be conveyed to a user community that represents varied interests such as state, federal, and local governments; private transportation agencies; consulting engineering firms; industry; planners; scientists; and engineers. Much remains to be learned, and this user community should be involved in guiding future research programs.
A continuing trend toward heavier loads and increasing traffic volumes combined with adverse environmental conditions has resulted in a reduction in life expectancy and more rapid deterioration of existing bridges. A comprehensive review of the national bridge inventory by the U.S. Department of Transportation concluded that approximately 40 000 bridges on the federal-aid highway system alone are structurally deficient and functionally obsolete. Similar bridge problems are faced by railroad and transit agencies.
The problem is widely recognized and federal, state, and operating agency appropriations are continually increasing for bridge construction and maintenance. An even larger effort must be made if the national's surface transportation system is to function efficiently. Because funds are limited for bridge construction and for repair, rehabilitation, and strengthening of existing bridges, a careful evaluation should be made of all available methodology and needed research to ensure the optimum use of resources.

The session topics will include:
- Long-Span Bridges
- Inventories, Inspection, and Evaluation
- Research and Design
- Construction
- Testing
- Low-Volume Bridges
- Foundations
- Deck Problems and Solutions
- Fatigue and Fracture
- Repairs and Rehabilitation
- Loads and Overloads
- Safety and Architecture

The preregistration form and fee must be received by September 11, 1978 and should be mailed to Marilou Damon, Transportation Research Board, 2101 Constitution Avenue, N.W., Washington, D.C. 20418, telephone 202-389-6335.

The registration desk will be open at 2:00 p.m. on Sunday, September 24, and at 8:00 a.m. each day thereafter at the Chase Park Plaza Hotel, 212 North Kingshighway Blvd. St. Louis, Missouri 63106, USA.

Seminar ING/IABSE
Bombay, Nov.–Dec. 1978

Topics of widest application-oriented interest have been chosen for the next Seminar of the Indian National Group of IABSE:

- Pile Foundation Systems – Special Problems
  The wealth of different piling systems currently available under headings of bored (replacement) or driven (displacement) pile offers an optimal solution in most cases. Construction of deep foundations for various structures poses the most difficult problems.
- Corrosion of Reinforced and Prestressed Concrete Highway & other Structures
  A disconcertingly large number of corrosion distress cases have been reported from all corners of the world. Corrosion can be a costly experience and the importance of preventive care is underlined by the dubious permanent value of costly cures.
- Detailing for Reinforced Cement Concrete and Prestressed Concrete Structures
  The safety, serviceability, and optimisation of a concrete structure – reinforced and prestressed – depends in a large measure on correct detailing of reinforcement. An incorrect detailing can negative all sophisticated analytical efforts.
- Ground Anchors
  The technology of anchoring large forces from earth retaining structures or large span superstructures into soil or rock has many application potentialities which deserve to be fully explored. Definition of the various parameters and constructional details will help popularise the techniques involved.

International experts and delegates from all concerned organisations of India will participate in the Seminar. The deliberations are expected to continue for three or four days and a complete record of the proceedings will be published.

Further details will be given by:

P.C. Bhasin
Secretary of the Indian National Group of IABSE
Jamnagar House
IDA Building, Ground Floor
Shahjahan Road

New Delhi – 110011 / India

IABSE Colloquium
Copenhagen, Denmark, May 21 – 23, 1979
Plasticity in Reinforced Concrete

At present, the design of reinforced concrete structures is based mainly upon accumulated experience, as laid down in empirical rules. However, the necessity of material economy has accentuated the need for a more rational design basis.
In a rational theory the same fundamental principles are used for the analysis of different structures – beams, walls, slabs, shells – subjected to different loadings – bending, torsion, shear, punching. The classical theory of plasticity constitutes such a general framework. Many countries allow the use of plasticity in the flexural analysis of beams, frames, and slabs, but it is not widely accepted as a general design tool for concrete.
In recent years, various research institutions have started exploring the possibilities of plastic analysis. Concerning shear problems, this approach has yielded several important results which, if and when they are incorporated into the national building codes, will lead to substantial savings of materials.

The IABSE Colloquium will focus upon the use of plasticity theory for the analysis and design of reinforced concrete structures.
The Colloquium will be divided into the sessions:

– Constitutive Equations – Yield Criteria
– Beams and Shear Walls
– Slabs
– Numerical Methods
– Specifications Based on Plastic Analysis

Each session will comprise the presentation of two introductory lectures and a limited number of submitted papers followed by a general discussion. Contributions of participants to the Colloquium should fall within the subject of each session as outlined in the Preliminary Invitation. Reports on experimental work not directly related to a theoretical analysis should not be submitted.

English is the official language of the Colloquium. No simultaneous translation will be provided.

The **Introductory Report** containing the introductory lectures will be published in October 1978. It may be ordered at the Secretariat of IABSE.

The Final Invitation will be mailed by the end of 1978 to all interested persons by

Secretariat of the IABSE
ETH–Hönggerberg
CH – 8093 Zürich, Switzerland

This Colloquium is organised jointly with the Technical University of Denmark, Structural Research Laboratory, and is co-sponsored by the American Concrete Institute, ACI, and the Comité Euro-International du Béton, CEB.

3rd International Conference in Australia
Sydney, Australia, July 2 – 6, 1979
Finite Element Methods

Prospective participants to the third international conference in Australia on Finite Element Methods are invited to submit papers, generally related to the following fields:

– Fundamentals
– Linear and Nonlinear Structural Mechanics
– Vibration and Stability
– Geomechanics
– Fluid Mechanics
– Biomechanics
– Software Developments
– Finite Element Applications in other fields

Submissions for presentation should be original research or investigation that has not been published elsewhere, nor is intended for publication other than in the conference proceedings.

Prospective authors are requested to submit summaries of not more than 500 words in English, with diagrams if necessary, which should be received not later than August 15, 1978.

After provisional selection and notification, the authors will be required to submit their papers in a specified format and on special forms. The final acceptance will follow the review of the complete paper. The closing date for the manuscript of the complete paper is January 15, 1979.

Authors' correspondence should be addressed to A/Prof. Al P. Kabaila (Conference Convener), and general enquiries to Dr. V.A. Pulmano (Conference Secretary):
School of Civil Engineering
The University of New South Wales
P.O. Box 1
Kensington, N.S.W. 2033 / Australia

Fifth International Conference on Wind Engineering
Fort Collins, CO, USA, July 8 – 13, 1979

Topics will include

– Economic and Social Impact of Winds
– Characteristics of Boundary-layer Winds, Hurricanes, Tornadoes and Downslope Winds
– Wind Characteristics for Wind-power Installations
– Wind Loading of Buildings and Structures
– Wind-excited Motions of Buildings and Structures
– Local Wind Environment-Transport of Air Pollutants, Architectural and Agricultural Aerodynamics, Control Measures
– Physical Modeling in Wind Tunnels and Water Channels
– Full-scale Measurements
– Applications of Research Findings to Engineering Design

Authors may submit two copies of complete paper for review by 15 December 1978 to

Dr. J. Cermak
Colorado State University
Fort Collins, Colorado 80523

Manuscripts should be in English, double spaced on 11 x 8 1/2 in. (28 x 21.6 cm) paper and not more than 20 pages in length. Notification of acceptance will be by 1 February 1978