

Structural Engineering International



Information on submitting papers:
<http://www.iabse.org/journalsci>

Publisher

IABSE
ETH-Hönggerberg
CH-8093 Zurich, Switzerland
Tel: Int +41-44-633 2647
Fax: Int +41-44-633 1241
e-mail: secretariat@iabse.org
web: <http://www.iabse.org>

SEI Editorial Board

S.F. Bailey, Chairman.
M. G. Bruschi, M. Faber, N.P. Hoej,
S. Nakamura, H.H. Snijder, J.A. Wium,
U. Brunner.

Publications Manager

Brindarica Bose, IABSE

Correspondents

China: D. Xu. *Denmark:* M. Braestrup.
Egypt: F. Saad. *Finland:*
M.-K. Söderqvist. *France:* B. Godart.
Germany: U. Kuhlmann. *India:* V. Kumar.
Italy: G. Bignotti, L. Ceriolo.
Japan: J. Kanda. *Korea:* H.M. Koh.
Norway: L. Toverud. *Poland:* W. Radomski.
Russia: S.V. Mozalev. *Sweden:*
H. Sundquist. *Thailand:* E. Limsuwan.
UK: D.K. Doran. *USA:* J. Burns,
D. Frangopol.

Advertising Inquiries

Sissel Niggeler, IABSE

Published

Quarterly: 1 Feb., 1 May, 1 Aug., 1 Nov.

Subscription

Included in IABSE Membership.
216 Swiss Francs per year including
mailing costs.
Available through subscription agencies.

ISSN 1016-8664, E-ISSN 1683-0350

Copyright © IABSE. All rights reserved.
Opinions and positions expressed in signed
articles are those of the authors and are not
necessarily those of *Structural Engineering
International* or IABSE.

IABSE Publications

SEI, SED, Reports

SEI online copies available at:
www.ingentaconnect.com/content/iabse/sei

Front cover:

Central Bus Station Hamburg
(Hans-Christoph Brinkschmidt, Hamburg)

See article on page 4

Editorial

Arc We Winning the Battle of Computerised Structural Modelling? 3
Dr K. Kayvani, Australia

Structures in Germany

Structures in Germany: An Introduction: *H. Svensson, Germany* 4
The Hamburg Boomerang: *A. Keil, M. Werwigk, Germany* 4
The High-Rise Ensemble at Münchner Tor in Munich: 11
W. Sobek, T. Winterstetter, M. Duder, S. Hagemmayer, Germany
Office Building Junghof – Visible Steel for a Fire Safe Structure: 16
J. Lange, K. Ewald, Germany
Realisation of the High Speed Rail Project Nuremberg-Ingolstadt – Special
Aspects of Design and Construction: *H.-W. Dorgarten, E. Erdem, Germany* 18
Stress-Ribbon Roof Structures of the New Stuttgart Trade Fair Exhibition Halls: 22
G. Ludescher, F. Braun, U. Bachmann, Germany
New Developments in Road Bridge Construction in Germany: *J. Naumann, Germany* 28
The second Strelasund Crossing – a modern Cable-Stayed Bridge in close vicinity to the
World Cultural Heritage of Stralsund, Germany: *K. Kleinhanß, R. Saul, Germany* 30
Wupper River Valley Bridge: A State-of-the-Art Composite Bridge: 35
G. A. Marzahn, M. Hamme, W. Prehn, J. Swadlo, Germany
New Neckar Bridge Mannheim, German Federal Expressway A6: *M. Osieja, Germany* 40
Reconstruction of Masonry Structures during the Widening of the Federal
Motorways in the New German Countries: *K.-H. Reintjes, Germany* 44

Recent Structures

Atrium of the Hotel Hesperia Tower, Barcelona, Spain: *C. Teixidor, Spain* 50
Hotel Hesperia's Glazed Dome, Barcelona, Spain: *C. Teixidor, Spain* 53

Reports

Saw-Tooth Connectors for the International Exhibition and Documentation 56
Center: Topography of Terror, Berlin: *C. Dehlinger, Germany*
The Fire Resistance of Concrete Structures of a Typical LNG Tank: 61
J. Roetzer, D. Salvatore, Germany
Static and Aero-Dynamic Studies on Cable-Stayed Bridges using Steel Pipe-Girders: 68
S. Nakamura, Japan
Evaluation of Fatigue Category of Riveted Steel Bridge Connections: 72
E. B. Matar, Egypt
Step by Step Post-Tensioning: Influence of the Friction Losses: *M. Lenzi, F. Zoli, Italy* 79

Science and Technology

Design Method for Connections by Adherence for Steel-Concrete Composite 86
Bridges: *M. Thomann, J.-P. Lebet, Switzerland*

Eminent Structural Engineer

Dr Fritz Leonhardt (1909–1999): 94
R. Saul, H. S. Svensson, H.-P. Andrä, Germany

SEI Discussion

Mechanism based Assessment of Masonry Arch Bridges: 97
B. Harvey, UK; P. Kumar, N. M. Bhandari, India

Panorama

Plaque Presentation Ceremony at the 'ZOB' in Hamburg 100
Information and Communication Technology (ICT) for Bridges, 101
Buildings and Construction Practice
Your Support, our Strength (IABSE Foundation Council) 104
IABSE Members' Business Cards 105
Calendar of Events 106
IABSE Membership Statement 107
Application for IABSE Membership 108

Abstracting and Indexing: This publication is abstracted quarterly in Cambridge Scientific Abstracts under CSA Civil Engineering Abstracts: <http://www.csa.com/engineering>, at Emerald Abstracts, International Civil Engineering Abstracts: <http://www.emeraldinsight.com/abstracts>, and at Construction and Building Abstracts (CBA): <http://www.cbaweb.co.uk/>