

Structural Engineering International



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

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 CHF: Individual Subscription
620 CHF: Institutional Subscription
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:

Copyright Architekten von Gerkan,
Marg und Partner, Fotos: H. Leiska

See article on page 282

Editorial

IABSE Today and Tomorrow; <i>J. Combault</i>	281
---	-----

Structures Worldwide

A Spoked Wheel Structure for the World's largest Convertible Roof – The New Commerzbank Arena in Frankfurt, Germany; <i>K. Göppert, Germany; M. Stein; USA</i>	282
Bayan Baru Flyover – Penang, Malaysia; <i>S. Nandy, I. B. M. Taib; Malaysia</i>	288
“Arroyo Las Piedras” Viaduct: The first Composite Steel-Concrete High Speed Railway Bridge in Spain; <i>F. M. Mato, J. P. Santos, M. O. Cornejo; Spain</i>	292
Design of the Nishisuimon Bridge, Tokyo; <i>K. Terada, T. Okada; Japan,</i> <i>D. Saito; UK</i>	298
The Piston-Stayed Bridge: A Novel Typology for a Mobile Bridge at Tervate, Belgium; <i>L. Ney, S. Adriaenssens; Belgium</i>	302
Shanghai Shimao International Plaza, China; <i>D. Wang, J. Zhang L. Bao; China</i>	306
The Svinesund Bridge, Norway/Sweden; <i>E. A. Jordet, S. E. Jakobsen; Norway</i>	309

Reports

General

A Scaffolding System strengthened with Organic Prestressing – the first of a new Generation of Structures; <i>P. Pacheco, A. Guerra, P. Borges, H. Coelho; Portugal</i>	314
Phaeno, Science Center Wolfsburg, Germany: Avant-garde Architecture, Innovative Construction; <i>B. Tokarz; Germany</i>	322

Operations, Maintenance and Repair

An Introduction: Operations, Maintenance and Repair of Structures; <i>J. A. Sobrino; Spain</i>	328
Extending the Life of Masonry and Concrete Arch Bridges; <i>J. A. Sobrino; Spain</i>	328
Load Tests of a Cable-Stayed Bridge in Coimbra, Portugal; <i>L. O. Santos, X. Min; Portugal</i>	337
Civil Engineering Faculty of ETH Zurich, Switzerland – Structural Assessment for Earthquake; <i>D. Zwicky, C. Bianchi; Switzerland</i>	342
The Finite Element Model Updating: A Powerful Tool for Structural Health Monitoring; <i>A. Mordini, K. Savov, H. Wenzel; Austria</i>	352
Performance-based Standard Specifications for Maintenance and Repair of Concrete Structures in Japan; <i>T. Ueda, K. Takewaka; Japan</i>	359

Eminent Structural Engineer

Eminent Structural Engineer: Evgeny Gibshman; <i>S. Mozalev; Russia</i>	367
---	-----

Panorama

IABSE Annual Meetings	370
Jacques Combault: New President of IABSE	370
Awards 2007	371
IABSE Committee Membership	374
IABSE Symposium Weimar, September 19–21, 2007	375
Calendar of Events	378
IABSE Members' Business Cards	379
Application for IABSE Membership	380

Abstracting and Indexing: This publication is abstracted in Cambridge Scientific Abstracts under
CSA Civil Engineering Abstracts: www.csa.com/engineering; **Emerald Abstracts,** International Civil
Engineering Abstracts: www.emeraldinsight.com/abstracts; **Construction and Building Abstracts**
(CBA): www.cbaweb.co.uk; **CAB Abstracts:** www.cabi.org; **INSPEC:** www.iee.org/Publish/inspec;
and is included in EBSCOhost and SwetsWise Online Content.