

Objekttyp: **TableOfContent**

Zeitschrift: **IABSE reports = Rapports AIPC = IVBH Berichte**

Band (Jahr): **80 (1999)**

PDF erstellt am: **22.06.2024**

Nutzungsbedingungen

Die ETH-Bibliothek ist Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Inhalten der Zeitschriften. Die Rechte liegen in der Regel bei den Herausgebern. Die auf der Plattform e-periodica veröffentlichten Dokumente stehen für nicht-kommerzielle Zwecke in Lehre und Forschung sowie für die private Nutzung frei zur Verfügung. Einzelne Dateien oder Ausdrucke aus diesem Angebot können zusammen mit diesen Nutzungsbedingungen und den korrekten Herkunftsbezeichnungen weitergegeben werden. Das Veröffentlichen von Bildern in Print- und Online-Publikationen ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. Die systematische Speicherung von Teilen des elektronischen Angebots auf anderen Servern bedarf ebenfalls des schriftlichen Einverständnisses der Rechteinhaber.

Haftungsausschluss

Alle Angaben erfolgen ohne Gewähr für Vollständigkeit oder Richtigkeit. Es wird keine Haftung übernommen für Schäden durch die Verwendung von Informationen aus diesem Online-Angebot oder durch das Fehlen von Informationen. Dies gilt auch für Inhalte Dritter, die über dieses Angebot zugänglich sind.



Table of Contents

Preface	(iii)
Table of Contents	1
Session 1: Geo-technical and Geophysical Investigation	5
Klaus H. OSTENFELD Evolution of Bridge Foundations for Constructability, Economy, Sustainability and Safety	7
HENRIK OLSEN, CARSTEN PLOUG Application of Geophysical Techniques for Major Bridge Projects in Denmark	13
NICOLAS ZOTSENKO, YURIY VYNNYKOV Rapid Investigation Methods of Soil Properties and Interpretation of their Results for Bridge Foundations Design	19
C.S. SØRENSEN, OLE HEDEDAL Geotechnical Design Considerations for Store Bælt East and Oresund Bridge	25
AKIYUKI WATANABE, TETSUO SHIMAMINE, KOSEI SONODA Evaluation of Cracked Soft Rock on In-Situ Test Results	31
K. ELANGO VAN, A. BALASUBRAMANIAN Computerised Resistivity Meter for Subsurface Investigations	37
S. R. KULKARNI, V. B. BORGE, Y. G. PATWARDHAN Shortfalls in Subsurface Investigations and for Bridge Foundations – A Few Case Studies alongwith review of Codal Provisions	45
TOVE FELD, S. JUEL PETERSEN Establishment of Foundation Design Parameters for Limestone	51
Session 2: Bed Erosion and Scour	57
S. P. CHAKRABARTI, N. K. SINHA, KRISHAN KANT Design Flood – An Overview of Indian Practice	59
B.U. NAYAK, V.K. APPUKUTTAN Role of Hydraulic Model Studies in Bridge Design	67
JORGE E. PAGAN-ORTIZ Design and Evaluation of Bridges for Scour in United States of America	75
U. C. KOTHYARI, K. G. RANGARAJU Mathematical Modelling for Scour Around Bridge Piers	83
GEORGE W. ANNADALE Application of the Erodibility Index Method to Estimate Scour at Bride Piers	91



J.L. BRIAUD, F.C.K. TING, H.C.CHEN, S.R. GUDAVALLI, S.B. PERUGU, K. KWAK Maximum Scour Depth at Bridge Piers in Sand and Clay are Equal	97
V. K. GHANEKAR, J. K. GOYAL, G. K. SAHU Monitoring of Lateral Earth Pressure on Well Foundations through Instrumentation	109
PETER F. LAGASSE, L.W. ZEVENBERGEN, E.V. RICHARDSON Development and Testing of Instrumentation for Monitoring Scour at Bridges	121
PETER F. LAGASSE, L.W. ZEVENBERGEN, E.V. RICHARDSON Bridge Scour and Stream Instability Countermeasures – Current Practice In the United States	127
PETER F. LAGASSE, L.W. ZEVENBERGEN, E.V. RICHARDSON Scour and Stream Stability Problems at Highway Bridges in the United States	133
PETER F. LAGASSE, L.W. ZEVENBERGEN, E.V. RICHARDSON Case Studies and Lessons Learned from Recent Scour-Related Bridge Failures in the United States	139
LYLE W. ZEVENBERGEN, P.F. LAGASSE, E.V. RICHARDSON Hydraulic Modelling for Bridge Scour Analysis in Tidal Waterways	145
Session 3: Loading, Load Factors and Design Techniques (Part – 1)	151
T. N. SUBBARAO Pylon Foundations of Four Cable Stay Bridges – The Indian Experience	153
LI TAO, JING REN The Test and Research on Design Method of Diaphragm Wall Type Foundation of Bridge	169
OLE HEDEDAL, C.S. SØRENSEN Elasto–Plastic Foundation Analysis of Ship Collision to the Øresund High Bridge	175
MAHESH TANDON, ALOK BHOWMICK Design of Foundation for Multispan Arch Bridge over River Sungai Dinding	181
VADIM SELIVERSTOV Bridge Foundations Design Practice – Codes Development in Russia	191
XUCHU ZHU, ZHENGWU YANG Pylon Foundation Design of Wuhan Bai Sha Zhou Bridge, China	197
JOHN STEPHENSON, TIM WRIGHT, DAVE YAEGER Design of River Piers for the Second Peace Bridge – Canada	203
Session 4: Loading, Load Factors and Design Techniques – (Part – 2)	209
LUC MAERTENS Swing Bridge Over Suez Canal at El Ferdan, Soil Structure Interaction and Deformations	211



BEN C. GERWICK, ROBERT BITTNER Large Diameter Steel Tubular Piles for Optimum Seismic Performance	217
A. CHAKRABARTI, B. MAJUMDAR, B.C. ROY Lateral Load Capacity Estimation of Large Diameter Bored Piles and its Implementation – A Study	221
XI ZHU Seismic Response for Cable-Stayed Bridge Pylon Foundation Considering Soil Structure Interaction	229
S.R.KANIRAJ Safe Load from Deficient Pile Load Test Data	235
MONA K. GHALI Effect of Pile Cap Flexural Rigidity on the Behaviour of Bridge Foundation	241
JOE M. BARR, ABDUL FAROOQ, STEVE GUEST Foundation of the Jamuna Bridge – Design and Construction	247
Session 5: Construction (Part-1)	263
S. KASHIMA, M. KITAGAWA, T. MORITANI, K. YAMADA Design and Construction of Foundations for Akashi Kaikyo Bridges	265
ANATOLY LIKVERMAN, VADIM SELIVERSTOV Innovative Structural Solutions and Construction Techniques for Deep Foundations of Large Bridges over Rivers	271
K.K. KAPILA, S.P. RASTOGI Special Method of Well Sinking Adopted at New Nizamuddin Bridge on NH – 24 in New Delhi	277
S.A. REDDI Unique Features of Foundation Nos. 17 and 18 of Jogighopa Bridge	285
R.K. DHIMAN Well Foundation Construction in Bouldery Bed Strata – A Case Study	291
NADER HALIMEH Construction of Anchored Caissons for a Motorway Viaduct	303
Session 6: Construction (Part-2)	309
H. WENZEL Verifying Computer Models of Bridge Foundations	311
TONG LIPING A Study on the Techniques of Spiral Pressure and Cementation for Underwater Concrete Piles	317
T. ARIMITSU, S. FURUYAMA, H. SATO, Y. TAKIUCHI Rapid Construction of Railway Bridge by Soil Cement and Steel Pile Method	323



BRUCE MELVILLE, STEPHEN COLEMAN Riprap Protection at Bridge Piers	329
STEPHEN COLEMAN, BRUCE MELVILLE New Zealand Case Studies of Scour at Bridge Foundations	335
S. MITRA, A. GHOSHAL Foundation Design and Construction of Rail-cum-Road Bridge Across River Damodar near Mejia	341
VIJAY KUMAR Foundation of Bridges on River Ganges in India	351
SESSION 7: Case Studies	369
FLEMMING M. PEDERSON Design of Foundations for the Storebælt East Bridge	371
M. OISHI, M. OKAHARA, J. FUKUI, Y. KIMURA Present Situations and Problems in Design and Construction of Caisson Foundations in Japan	379
A.K. CHATTERJEE, V.M. DHARAP Problems of Construction of Caisson Foundations of the Second Hooghly River Bridge (Vidyasagar Setu) at Calcutta	385
R.L. MALIK, LALLOO SINGH Difficult Foundations of Jogighopa Bridge – Some Design Aspects	391
INGMAR SVENSK, PER-OLA SVAHN Foundation of the Uddevalla Bridge	401
KLAUSE FABLE-HANSEN, JORGEN GIMSING, PAUL MORRISON Planning and Monitoring the Foundations for the Oresund Bridge	407
S.K.B. NARAYAN, ASHOK K. BASA Foundation Failure of Bridges in Orissa – Two Case Studies	415
C.S. BALRAMAMURTHY AND SATISH KUMAR Construction and Maintenance of Kalia Bhomara Bridge Across River Brahmaputra near Tejpur on NH-37 A	421
D.N. MISHRA Innovative Bridge Foundation for Hilly Regions	427
M. VENKATESH Special Chemicals for Effective Restoration of Distressed Bridge Foundations	435
GERARD SAUVAGEOT The Confederation Bridge, Canada	441
List of Authors	447