

Strait Crossings 2009 - Preliminary List of Sessions

Session: Plenary Session - Invited Speakers
Date/Time: 22.06.2009 1030-1210
Room: No Room Allocated
Chair: Eivind Grøv, SINTEF, NORWAY
Co-chair:

Paper	Authors
Safety and security in Strait Crossings	Arnold Dix Private Consultant AUSTRALIA
Thirty years of experience with sub-sea tunnels	Bjørn Nilsen NTNU NORWAY
Climatic Change and Possible Impact on Coastal Structures	Arne Instanes Instanes Polar AS NORWAY

Session: Session 1 - General Aspects of Strait Crossings
Date/Time: 22.06.2009 1300-1440
Room: No Room Allocated
Chair: Frank Myrvoll, Norwegian Geotechnical Institute, NORWAY
Co-chair:

Paper	Authors
Advanced maritime urban transportation systems. A methodological approach	Domenico Gattuso Pierre Laconte Università Mediterranea di Reggio Calabria ITALY
Transportation benefits of replacing a ferry connection with a sub-sea tunnel	Ingar Hals NPRA Region West NORWAY
Ensuring Cross-Border Operation without Compromising Safety	Johnny Restrup-Sørensen Øresundsbro Konsortiet DENMARK
Cost benefit analysis of Stad ship tunnel	Dag Bertelsen Trude Tørset Solveig Meland SINTEF NORWAY
Design and Tendering Strait Crossings for Lif	Jakob Laigaard Jensen Niels Bitsch Morten Zinck COWI DENMARK
The FAUST method for optimization of strait crossings	Davorin Kolic Neuron Consult ZT AUSTRIA

Session: Session 2 - Sub-Sea Tunnels
Date/Time: 22.06.2009 1300-1440
Room: No Room Allocated
Chair: Bernt Freiholtz, Swedish Road Administration, SWEDEN
Co-chair:

Paper	Authors
Discussion on Calculation of Hydraulic Load upon Lining Structure of Sub-sea Tunnel	Chaoye Song Shuming Zhou Zhiwen Tan China Railway Tunnel Survey & Design Institute CHINA
Fire protection and fire fighting in tunnels	Antonio Fiorentino Ponte di archimede international ITALY
30m Rock Pillar to the Atlantic Ocean Sub-sea tunnelling in Faeroe Islands	Eivind Grøv David Reinert Hansen SINTEF Rock and Soil Mechanics NORWAY

Session: Session 3 - Immersed Tunnels
Date/Time: 22.06.2009 1300-1440
Room: No Room Allocated
Chair: Ian Markey, Norwegian Public Roads Administration (NPRA), NORWAY
Co-chair:

Paper	Authors
The Femern Bælt Fixed Link connecting Denmark and Germany	Steen Lykke Femern Bælt A/S DENMARK
Offshore Access Shaft for the Bosphorus Strait Immersed Tunnel	Masaaki Toyama Fumio Koyama Masahiko Tsuchiya Taisei Corporation JAPAN
Construction of the Busan - Geoye Immersed Tunnel from the Designer's view point	Tommy Olsen Peter Graham Jackson J S Lee Cowi A/S DENMARK
Innovative Design of Immersed tunnel - Söderströmstunneln.	Christer Johansson Stephen Slot Odgaard Johannes Glückert COWI A/S DENMARK
Maintenance considerations for immersed tunnels, with particular reference to the Bjorvika Tunnel	Jonathan Baber Lars Narvestad Capita Symonds UNITED KINGDOM
Construction of the Bosphorus Immersed Rail Tunnel	Walter C. Grantz Claus Iversen Immersed Tunnel Consultant UNITED STATES

Session: Session 4 - General Aspects of Strait Crossings
Date/Time: 22.06.2009 1510-1630
Room: No Room Allocated
Chair: Frank Myrvoll, Norwegian Geotechnical Institute, NORWAY
Co-chair:

Paper	Authors
Respondents location and stated value of headway time	Thor-Erik Sandberg Hanssen Bodø Graduate School of Business NORWAY
Preparing for development in the Bjørvika area	Svein Røed Norwegian Public Roads Administration NORWAY
Environmental Impacts of Strait Crossings in Norway	Pål Rosland NPRA NORWAY
Key safety risk analysis during the whole process of subsea tunnel construction	Zhang Dingli Li Bing Fang Qian Li Pengfei Tunnel and Underground Engineering Research Center of Education Ministry CHINA
Preventing coastal erosion in arctic areas; protection by use of geosynthetics	Jomar Finseth Dag T. Andreassen Magne Wold Even Øiseth SINTEF Byggeforsk NORWAY

Session: Session 5 - Sub-Sea Tunnels
Date/Time: 22.06.2009 1510-1630
Room: No Room Allocated
Chair: Olli J. Keinänen, City of Helsinki, International Relations, FINLAND
Co-chair:

Paper	Authors
Simulation of long and big tunnel fire based on Smartfire	Shu-qing Hao Tongji University CHINA

Road Tunnel Fire Protection by Water Mist Systems – Innovative Solutions for Special Tunnels

Stefan Kratzmeir Max Lakkonen
FOGTEC Fire Protection
GERMANY

Sub sea tunnels in Korea

Hee-Soon Shin Eui-Seob Park
Korea Institute of Geoscience and Mineral Resources
KOREA SOUTH

Russian underwater tunnels in the system of international transportation ways

V.A. Brezhnev V.M. Abramson A.M. Zemelman S.N. Vlasov
N.I. Koulaguin
Tunnels & Metro Research Center
RUSSIA

The Norwegian sub-sea road tunnels: Background and experiences

Arne W Grønhaug
AWiGEO
NORWAY

Session: Session 6 - Immersed Tunnels
Date/Time: 22.06.2009 1510-1630
Room: No Room Allocated
Chair: Frode Oset, Norwegian Public Road Administration, Norway
Co-chair:

Paper

Authors

The Marmaray Project: Connecting the Continents

Huseyin Belkaya Ahmet Arslan Haluk Ozmen
Yuksel Proje International
TURKEY

The Bjørvika Immersed Tunnel and Land Connections

Ian Markey Lars Narvestad
Norwegian Public Roads Administration
NORWAY

The Tingstad tunnel - an overview of operational experiences

Bernt Freiholtz Charlotta Bjerkborn Per Thunstedt
Swedish Road Administration
SWEDEN

Design and performance of floating foundation concept for the submerged tunnel across Bjørvika in Oslo

Kjell Karlsrud Kjell Narvestad
Norges Geoteknisk Institutt (NGI)
NORWAY

Session: Plenary Session - Invited Speakers
Date/Time: 23.06.2009 0830-1000
Room: No Room Allocated
Chair: Olav Ellevset, Norwegian Public Road Administration, NORWAY
Co-chair:

Paper

Authors

Financing of Road Infrastructure

Cesar Queiroz
World Bank
USA

The E39 ferry-connections in Hordaland and Rogaland - gas ferries.

Oscar Bergheim
Fjord1 Fylkesbaatane
NORWAY

Prognosis and actual traffic for strait crossings projects

Leif Magne Lillebakk
Public Roads Administration
NORWAY

Session: Session 7 - General Aspects of Strait Crossings and Ferries, Safety, Risk
Date/Time: 23.06.2009 1030-1150
Room: No Room Allocated
Chair: Kaare Flaate, Dr. Kaare Flaate, NORWAY
Co-chair:

Paper

Authors

Service Elements in the Ferry Industry

Terje A. Mathisen Gisle Solvoll
Bodø Graduate School of Business
NORWAY

Sri Lanka - India Land Bridge Techno-Economic Feasibility
Some Thoughts from England

Sydney Xavier
Retired UK Civil Servant & Civil Engineer
UNITED KINGDOM

The optimization potential of alternative crossings for Fehmarn
Belt

Davorin Kolic Christopher Kerschbaumer
Neuron Consult ZT
AUSTRIA

Stabilizing ground conditions with under-water cast concrete

Thomas Beck
Rescon Mapei AS
NORWAY

Cable ferry experiences

Egil Kvingedal
Wergeland-Halsvik as
NORWAY

Session: Session 8 - Sub-Sea Tunnels
Date/Time: 23.06.2009 1030-1150
Room: No Room Allocated
Chair: Bernt Freiholtz, Swedish Road Administration, SWEDEN
Co-chair:

Paper

Authors

The Stad Ship Tunnel

Svein Fjeld Arnold Jacobsen Øystein Linnestad
Dr.techn.Olav Olsen as
NORWAY

The Overall Design of Tsingdao Jiaozhouwan Subsea Tunnel

Shuming Zhou Xianfeng Zhang Chaoye Song Zhiwen Tan
Peng Liu
China Railway Tunnel Survey & Design Institute
CHINA

Üsküdar-Sirkeci Underground Stations Istanbul, Turkey–new
Railway Line under the Bosphorus Strait

Wolfgang Georg Brunner Wolfram Groh
BAUER Maschinen GmbH
GERMANY

Undersea Tunnels and World Perspectives

Lars Christian F. Ingerslev
Parsons Brinckerhoff
UNITED STATES

Structural and safety outline of Trans-Tokyo Bay Highway

Yoshikazu Ota
OTA Engineering
JAPAN

Session: Session 9 - Bridges
Date/Time: 23.06.2009 1250-1410
Room: No Room Allocated
Chair: Jørgen Holst, COWI A/S, DENMARK
Co-chair:

Paper

Authors

Development of suspension bridge solutions for Hålogalands
Bridge

Lars Jensen Bernt Jakobsen Allan Larsen
COWI A/S
DENMARK

Computational issues in design and construction of atypical
asymmetric cable-stayed bridges

Tae-Yeol Lee Hyun-Yang Shin Jai-Beom Shim
Samsung C&T Corporation
KOREA SOUTH

Efficient utilisation of optimal network arches

Per Tveit
Universitetet i Agder
NORWAY

Durability of Highway Concrete Bridges in China

Yufang Fu Jinquan Zhang Wanheng Li
Research Institute of Highway, MOT
CHINA

Creation of Norway's longest suspension bridge

Øivind Søvik
Public Road Organisation Western region
NORWAY

Session: Session 10 - Field Investigations
Date/Time: 23.06.2009 1250-1410
Room: No Room Allocated
Chair: Alf Kveen, Norwegian Public Road Administration
Co-chair:

Paper	Authors
Geophysical and geological investigations for the ROGFAST project.	Jan Steinar Ronning Oystein Nordgulen Odleiv Olesen Aline Saintot Arne Solli Geological Survey of Norway NORWAY
Characterization of fracture zones in bedrock using 2D resistivity.	Jan Steinar Ronning Einar Dalsegg Harald Elvebakk Guri V. Ganerod Björn Heincke Geological Survey of Norway NORWAY
Significance of geological parameters for predicting water leakage in hard rock tunnels.	Kristin Hilde Holmøy SINTEF Building and Infrastructure, Rock and Soil Mechanics NORWAY
Uncertainty analysis for assessing rock mass quality and water inflow in hard rock subsea tunnels	Krishna Kanta Panthi NTNU NORWAY
Engineering geological key factors for planning and constructing hard rock subsea tunnels	Bjørn Nilsen Arild Palmstrøm NTNU NORWAY

Session: Poster Session
Date/Time: 23.06.2009 1250-1600
Room: No Room Allocated
Chair:
Co-chair:

Paper	Authors
The design and construction of Incheon Bridge in Korea	Jong-Ho YANG Hyun-Yang SHIN Jai-Beom SHIM Hwa-Soo KIM Nigel B Brook Incheon Bridge Construction Site Office, Samsung C&T Corporation KOREA SOUTH
Busan-Geoje Fixed Link immersed tunnel	yong-il Kim je-choon Kim jung-sang Lee DAEWOO E&C KOREA SOUTH
A study on shear strength characteristic at the face of slurry shield under general stress conditions	HU Xinyu ZHANG Zixin Tongji University, Shanghai, China CHINA
Suggested solutions for the fabrication of elements for a SFT crossing Sulafjorden in Ålesund, Norway.	Alfred van der Bend Marius Hagerup André Myhre Høgskolen i Ålesund NORWAY

Session: Session 11 - Bridges
Date/Time: 23.06.2009 1440-1600
Room: No Room Allocated
Chair: Børre Stensvold, Norwegian Public Roads Administration, NORWAY
Co-chair:

Paper	Authors
Long span suspension bridges for strait crossings	Lars Jensen COWI A/S DENMARK
New generation of precast segments for bridges built by cantilever balanced method	Ludovit Fillo Jaroslav Halvonik Viktor Borzovič Slovak University of Technology in Bratislava SLOVAKIA
Kveøya Composite Bridge Low budget and slender piles	Ola Fjerdingsstad Norwegian Public Roads Administration NORWAY

Session: Session 12 - Maintenance and Operation
Date/Time: 23.06.2009 1440-1600
Room: No Room Allocated
Chair: Øivind Søvik, Public Road Organisation Western region, NORWAY
Co-chair:

Paper	Authors
Extended operational time for an old bridge in Sweden using instrumented integrity monitoring	Frank Myrvoll Benny Bergstrand Branko Glisic Merit Enckell Norwegian Geotechnical Institute NORWAY
Understanding the real behaviour of The New Svinesund Bridge by monitoring	Raid Karoumi Robert Ronnebrant Peter Harryson Thomas Darholm The Royal Institute of Technology (KTH) SWEDEN
Long Term Bridge Monitoring in Seattle, WA, USA	Andres Thorarinsson Dave Anderson Vista Engineering / Vista Data Vision ICELAND
Optimization of Operation and Maintenance Activities and Costs for Tunnels based on experience	Jørgen Holst Department for Tunnels and Underground Structures, COWI DENMARK
Älvsborg Bridge - Replacement of suspender cables and maintenance planning	Bernt Freiholtz Matthew Bloomstine Per Thunstedt Swedish Road Administration SWEDEN
Altered specifications for the protection of Norwegian steel bridges and offshore structures against corrosion.	Reidar Klinge Civil engineer Reidar Klinge NORWAY

Session: Session 13 - Bridges
Date/Time: 24.06.2009 0900-1020
Room: No Room Allocated
Chair: Jørgen Holst, COWI A/S, DENMARK
Co-chair:

Paper	Authors
Practical Management for Cable Band Bolts on Suspension Bridges during Operation	Ikuo Yamada Akira Moriyama Yoshiteru Yokoi Honshu-Shikoku Bridge Expressway Company Limited JAPAN
Towards a vibration free deck section for cable supported bridges	Allan Larsen Mike Savage Alanna Wall COWI DENMARK
Smaalenene cable-stayed bridge	Per Norum Larsen Gunnar Egset Carl Hansvold Johs. Holt A.S NORWAY
Specifics of long bridges monitoring	Victor Ushakov Alexander Vasilyev MADI Technical University RUSSIA

Session: Session 14 - Submerged Floating Tunnels
Date/Time: 24.06.2009 0900-1020
Room: No Room Allocated
Chair: Lars Christian F. Ingerslev, Parsons Brinckerhoff, UNITED STATES
Co-chair:

Paper	Authors
A CONCEPTUAL SUBMERGED FLOATING TUNNEL	Walter C. Grantz Bernt Jakobsen Havard Ostlid Immersed Tunnel Consultant UNITED STATES

Influences of Structural Damping and Buoyancy-Weight Ratio on Dynamic Responses of Submerged Floating Tunnel

Youshi Hong Xu Long Fei Ge Lei Wang
Institute of Mechanics, Chinese Academy of Sciences
CHINA

Researches on Essential Mechanics Issues for Submerged Floating Tunnel

Youshi Hong Fei Ge Xu Long
Institute of Mechanics, Chinese Academy of Sciences
CHINA

Crossing the Wide and Highly Exposed Sulafjord with an SFT

Stein Atle Haugerud Bernt Jakobsen Per Haaland
Dr.techn. Olav Olsen a.s
NORWAY

Performance evaluation of anchorage cable systems for Submerged Floating Tunnels

Giulio Martire Matteo Esposito Beatrice Faggiano Federico Mazzolani
University of Naples Federico II
ITALY

Session: Session 15 - Bridges
Date/Time: 24.06.2009 1050-1210
Room: No Room Allocated
Chair: Børre Stensvold, Norwegian Public Roads Administration, NORWAY
Co-chair:

Paper	Authors
Hardanger Suspension Bridge Structural analyses and design	Bjørn Isaksen Kristian Berntsen Alexander Kyte Jon Solemsli Norwegian Public Roads Administration NORWAY

William R. Bennett Floating Bridge, Canada

Svein Erik Jakobsen Per Norum Larsen Darryl Matson
Aas-Jakobsen AS
NORWAY

The Nordhordland Bridge - A revisit and some comments

Jan Olav Skogland
Public Roads Administration
NORWAY

Session: Session 16 - Submerged Floating Tunnels
Date/Time: 24.06.2009 1050-1210
Room: No Room Allocated
Chair: Lars Christian F. Ingerslev, Parsons Brinckerhoff, UNITED STATES
Co-chair:

Paper	Authors
Two-dimensional Vortex-induced Vibrations of Submerged Floating Tunnel Tethers	Fei Ge Xu Long Lei Wang Youshi Hong Institute of Mechanics, Chinese Academy of Sciences CHINA

Vortex Induced Vibration in Submerged Floating Tunnels: DVL - a Distributed Vortex Layer Model

Mariagrazia Di Pilato Federico Perotti
Politecnico di Milano
ITALY

The SIJLAB Joint Laboratory and the design of a prototype Archimedes Bridge

Antonio Fiorentino Federico Mazzolani Federico Perotti
DIS Politecnico di Milano
ITALY

The Høgsfjord SFT Project
- what happened and what have been the consequences?

Lidvard Skorpa
Statens vegvesen, region Vest
NORWAY

Three-dimensional Dynamic Characteristics of Submerged Floating Cylinders Moored by Tension Legs

Motohiro Sato Shingo Hoshizaki Shunji Kanie Takashi Mikami
Graduate School of Engineering, Hokkaido University
JAPAN

Submerged Floating Tunnels for Norwegian Fjords

Per Tveit
Universitetet i Agder
NORWAY