

ICSE11 2023 Final Programme

17 Sept.	West and northern lounge	Margarethe 1	Frederik	
13:00 - 18:00	Registration			
14:00 - 17:00		Short Course 1: Scour Assessment for Marine and Offshore Structures Instructor: Thor Ugelvig Petersen	Short course 2: Scour Protection for Offshore Wind Turbine Foundations Instructor: Anders Wedel Nielsen	
17:00 - 18:30	Welcome Reception			
18 Sept.	Main session room (Amalienborg+Grand Ball Room)		Christiansborg	Kronborg
08:00 - 17:30	Registration (West lounge)			
09:30 - 10:00	Opening and Welcome speech	Thor Ugelvig Petersen		
	Keynote session	Chair: Erik D. Christensen		
10:00 - 11:00	K1: Shinji Sassa	Recent Advances in the Mechanics and Countermeasures of Scour and Erosion		
11:00 - 11:30	<i>Coffee break/ Exhibition (northern and western lounge)</i>			
11:30 - 12:30	K2: David Fuhrman	Computational fluid dynamics simulation of scour processes		
12:30 - 14:00	<i>Lunch break/ Exhibition (northern and western lounge)</i>			
13:20 - 13:50	<i>Industry Symposium: Van Oord</i> <i>Speakers: Caitlin Holzhauser and Robert Lengkeek</i>			
14:00 - 15:30	Technical Session 1 - Physical Modelling of Scour and Erosion Chair: Scott Draper		Technical Session 2 - Numerical Modelling of Scour and Erosion Chair: John Harris	Technical Session 3 - Erosion Monitoring and Measurement Chair: Martin Dixen
	<p>O1: Simulating Model-Scale Bedforms and their Interaction with Subsea Pipelines and Cables, <i>Luh Putri Adnyani</i></p> <p>O2: Scour induce settlement of spudcan foundations, <i>Hongwei An</i></p> <p>O3: Short-term scour development around an offshore pre-piling template, <i>Yorick Broekema</i></p> <p>O4: Experimental pull-out tests of cable protection systems, <i>Eva Falke</i></p> <p>O5: Scour Around and Sinking of Subsea Structures Under Current and Waves, <i>V.S. Ozgur Kirca</i></p> <p>O6: Observation of Pipe Geometry with Progression of Backward Erosion Piping, <i>Mitsu Okamura</i></p>		<p>O7: 3D CFD LES PROCESS-BASED SCOUR SIMULATIONS WITH MORPHOLOGICAL ACCELERATION, <i>Lynrd De Wit</i></p> <p>O8: Calibrating time development of scour and backfilling around vertical pile using Immersed Boundary method, <i>Rohit Kulkarni</i></p> <p>O9: Scour Model Using Open-Source CFD Software in a Python Framework Controlling Cyclic Bed Deformation and Remeshing, <i>Marta Sitek</i></p> <p>O10: Efficient 3D Numerical Modelling of Clear and Live bed Scour in Waves and Current, <i>Jonatan Margalit</i></p> <p>O11: CFD simulations of the flow around a bottom-fixed vertical pile with a n-Euler approach, <i>Gaétan Pierre</i></p> <p>O24: Internal soil erosion: A five-phase model and multi-physics SPH solver, <i>Ha Bui</i></p>	<p>O13: PUMP Erosion Test : an erodimeter for field studies, <i>Christophe Chevallier</i></p> <p>O14: Comparison of Methodologies for Determining Soil Critical Shear Stress from Erosion Data, <i>Haoyin Shan</i></p> <p>O15: Simultaneous Bed Shear Stress Determination Using CFD in Erosion Testing, <i>Michael Uhrig</i></p>
15:30 - 16:00	<i>Coffee break/ Exhibition (northern and western lounge)</i>			
16:00 - 17:30	Technical Session 4 - Physical Modelling of Scour and Erosion Chair: Thor Ugelvig Petersen		Technical Session 5 - Numerical Modelling of Scour and Erosion Chair: Niels Gjøel Jacobsen	Technical Session 6 - Sediment transport, rock scour and effects of geology on internal erosion Chair: Ha Bui
	<p>O16: Scour protection performance in morphologically-active environments under combined wave-current action, <i>Natalia Aleksandrova</i></p> <p>O17: Experimental study of clear water and low KC number wave-current scour around XL monopiles, <i>Simone de Lemos</i></p> <p>O18: Scale model testing of eco-friendly scour protections for offshore foundations and cables, <i>Natalia Aleksandrova</i></p> <p>O19: Degradation of armour layer in a scour protection around a monopile exposed to waves, <i>Anders Wedel Nielsen</i></p> <p>O20: Towards a better understanding of loose rock scour protection stability around monopile foundations, <i>Peter Willem Van Steijn</i></p> <p>O21: Local Scour around a Monopile Protected by a Sand-Filled Blanket in Steady Currents, <i>Xin Cheng</i></p>		<p>O22: Migration of fines in granular filters: the role of filter particle shape, <i>Ali Abdallah</i></p> <p>O23: Time Variation of Scour Around a Single Pile Under Continuously-Changing Metocean Conditions: A Mathematical Model, <i>V. S. Ozgur Kirca</i></p> <p>O12: An Eulerian two-phase model investigation on wave-induced scour around a vertical circular cylinder, <i>Benjamin Tsai</i></p> <p>O25: Numerical Simulation of the flow field in the Hole Erosion Test, <i>Bahaeleen Zaid</i></p> <p>O26: Time Evolution of Scour: The Importance of Event Duration, <i>John Harris</i></p>	<p>O27: Experimental Investigation of Suffusion with X-ray Computed Tomography, <i>Hannah Kaiser</i></p> <p>O28: Statistical and Experimental Studies on the Hydraulic Conductivity of Levees in Relation to Micro-topographies, <i>Wenyue Zhang</i></p> <p>O29: New Probabilistic 2D Jet Impingement Rock Scour Model, <i>Michael George</i></p>
17:45 - 19:15	ISSMGE TC213 Committee Meeting, and presentation of ICSE-12 (open to all ICSE-11 attendees)			

19 Sept.	Main session room (Amalienborg+Grand Ball Room)	Christiansborg		Kronborg
8.30 - 17.30	Registration (West lounge)			
	Keynote session	Chair: Thor Ugelvig Petersen		
09:00 - 10:00	K3: B. Mutlu Sumer	Scour and Liquefactions at Foundations of Floating Offshore Turbines		
10:00 - 10:30	Coffee break/ Exhibition (northern and western lounge)			
10:30 - 11:30	K4: Andreas Roulund	Present and future scour and cable protections solutions - Reef habitats of offshore wind		
11:35 - 12:35	Technical Session 7 - Physical Modelling of Scour and Erosion Chair: Tiago Ferradosa		Technical Session 8 - Scour and Erosion around Structures Chair: Ozgur Kirca	Technical Session 9 - Geo-hazards and erosion risk assessment Chair: Klavs Bundgaard
	<p>O30: Physical experiments of tsunami scour around on-shore square structures, Rafael Aranguiz</p> <p>O31: Optimizing Scour Countermeasure Design Using Physical and Numerical Modeling, Michael Uhrig</p> <p>O32: Evaluation of bank protection design based on the back-analysis of excess pore water pressure measured in model tests, Julia Rothschild</p> <p>O33: Scour development in layered soils around offshore monopile foundations, Rick Velthuizen</p>		<p>O34: New Developments in Scour Modelling, Gijs Hoffmans</p> <p>O35: Field data-based correlation between scour at offshore wind farms (OWFs) and hydrodynamic drivers, Karen Garcia</p> <p>O36: Numerical Investigation of Propeller Jet Flow for the Understanding of Scouring Mechanism, R. Ilayda Tan</p> <p>O37: Hydraulic Cable Protection System Stability on Concrete and Rock Armour in Lateral Flow, Richard Whitehouse</p>	<p>O38: A comparison of the French and Japanese scour risk assessment procedures for railway infrastructure, Tianyu Wang</p> <p>O39: Assessment of Scour Hazard Risk around Bridge Piers – Framework and Case Study, Haoyin Shan</p> <p>O40: Scour monitoring on bridge pier: Two French returns on experience, Christophe Chevalier</p>
12:35-14:00	Lunch break/ Exhibition (northern and western lounge)			
13:20-13:50	Industry Symposium: Rohde Nielsen Speaker: Henrik Frederiksen			
14:00 - 15:30	Technical Session 10 - Countermeasures for Scour and Erosion Chair: Christoffer Truelsen		Technical Session 11 - Scour and Erosion around Structures Chair: Erik D.Christensen	Technical Session 12 - Physical Modelling of Scour and Erosion Chair: Martin Diken
	<p>O41: Eco-friendly Scour Protection Design Around Offshore Foundations, Jakin Brito Trevino</p> <p>O42: Research study and new evaluation method for pre-filled mattresses as erosion protection systems of berthing structures against jet propeller actions, Paolo di Pietro</p> <p>O43: Scour Protection Design for Offshore Substation Platforms, Eduardo Calderon Asensio</p> <p>O44: Composite rock bag solution for scour protection at a very exposed location, Nadia Antonella Genovese</p> <p>O45: New Omni-directional Scour-Resistant Design for Bridge and Pier Circular Monopiles, Roger Simpson</p>		<p>O46: Time of equilibrium scour evolution at guide banks, Boriss Gjunsburgs</p> <p>O47: A new perspective on backfilling time scales, Bjarke Eltard Larsen</p> <p>O48: Experimental Study on Wave-induced Sediment Transport Mechanism around Single and Multiple Cylindrical Structures, Tatsuya Matsuda</p> <p>O49: Scour development around complex offshore foundations under current load, Mario Welzel</p> <p>O50: Severe seabed response around marine structures: Numerical modelling of seabed liquefaction, Christian Windt</p> <p>O51: Effects of cyclic loading direction on current-induced scour around monopile foundations, Zishun Yao</p>	<p>O52: Local scour at squat, shallowly embedded structures, Lili Qu</p> <p>O53: Comparison of Scour in Complex Soils around the Foundations of Marine Harvesting Technologies, João Chambel</p> <p>O54: Experimental study on wave-induced soil mechanical processes influencing bed load transport of fine sand, Oliver Stelzer</p> <p>O56: Suspension Effect in Rotating Surface Erosion Testing, Yunjie Lin</p> <p>O57: Shear Stress Decay Functions for Abutment Scour, Haoyin Shan</p>
15:30 - 16:00	Coffee break/ Exhibition (northern and western lounge)			
16:00 - 17:00	Technical Session 13 - River, Coastal, Estuarine and Marine Scour and Erosion. Chair: Anders Wedel Nielsen		Technical Session 14 - Scour and Erosion around Structures Chair: Thor Ugelvig Petersen	Technical Session 15 - Countermeasures for Scour and Erosion Chair: Kerry Marten
	<p>O58: Sediment Transport in Nearshore Area along a High Energy Coast, Honghai Li</p> <p>O59: Study on Scour Around the Monopile Under Coupling Effect of Tidal Current and Monopile Vibration, Fei Geng</p> <p>O60: Coastal Road Slope Disasters due to Scour and Erosion surrounding a Retaining Wall, Ryota Tsubokawa</p> <p>O61: Effects of flow characteristics on current-induced scour around jacket foundations, Chen Hao</p>		<p>O62: Instability of subsea structures on a mobile seabed, Scott Draper</p> <p>O63: Stability of rock-filled mesh bags, Niels Gjoel Jacobsen</p> <p>O64: Field performance of cable crossings rock berms in the North Sea, Hendrik Jan Riezebos</p> <p>O65: Effects of loosening following installation on the overall stability of suction bucket foundation under wave-induced liquefaction, Junji Miyamoto</p>	<p>O66: Using a novel mylar film technique to measure the efficacy of scour mitigation methods for offshore wind turbines, Maisy Bradbury</p> <p>O67: Nacelle natural frequency data to assess the effectiveness of pre- and post-installation scour protection, Amelia Couldrey</p> <p>O68: Scour Mitigation and Erodibility Improvement Using Soybean Urease-Induced Carbonate Precipitation, Dawei Guan</p> <p>O69: Large Hydraulic Experiment on the Prevention of Sand Leakage from Caisson Joints in Caisson-type Seawall using Mesh Fiber Force Reducers, Osamu Ishizaka</p>
17:10 - 19:00	Bus trip to DHI Group Facilities (tickets on-site at registration desk)			

20 Sept.	Main session room (Amalienborg+Grand Ball Room)	Christiansborg	Kronborg
8.30 - 15.00	Registration (West lounge)		
	Keynote session	Chair: Martin Dixen	
09:00 - 10:00	K5: Richard Whitehouse	Insights on foundation scour gained from laboratory testing	
10:00 - 10:30	Coffee break/ Exhibition (northern and western lounge)		
10:30 - 11:30	K6: Yorick Broekema	Handbook of scour and cable protection methods – Advances in tools and modelling	
11:35 - 12:35	Technical Session 16 - Case Stories, Lessons Learned and General Practice for scour and erosion Chair: Cathy Avila	Technical Session 17 - Scour and Erosion around Structures Chair: Gijs Hoffmans	Technical Session 18 - Mechanics of internal Erosion Chair: Oliver Stelzer
	<p>O70: Analysis of landslide triggers in a complex soil stratigraphy prone to water induced erosion, <i>Karin Bergdahl</i></p> <p>O71: Comparison of Abutment Scour Equations Developed for Alluvial and Cohesive Sediment, <i>Holly Callahan, Cathy Avila</i></p> <p>O72: River Training Structures in the Brahmaputra River in Bangladesh, Comparison of Scour, Study, and Nature, <i>Ole Jensen</i></p>	<p>O73: Prediction and observation of scour around the temporary river works for the Thames Tideway Tunnel, <i>Kerry Marten</i></p> <p>O74: Reinforcement Mechanism and Failure Mode of Embankment Reinforced with Steel Sheet Piles against Overtopping and Scouring, <i>Yusuke Mochida</i></p> <p>O75: Hydraulic model test on destabilization process of river bridge pier caused by local scours, <i>Kenji Watanabe</i></p>	<p>O76: Backward Erosion Piping for Situations with a Riverside Blanket, <i>Ligaya Wopereis</i></p> <p>O77: Net Size Selection for Suffusion Test – A Laboratory Verification with Segregation Test, <i>Peter To</i></p> <p>O78: Migration characteristics of fine particles driven by fluid at particle scale in porous media, <i>Yanzhou Yin</i></p>
12:30-14:00	Lunch break/ Exhibition (northern and western lounge)		
14:00 - 15:00	Technical Session 19 - Case Stories, Lessons Learned and General Practice for scour and erosion Chair: Anders Helkjær	Technical Session 20 - River, Coastal, Estuarine and Marine Scour and Erosion. Chair: Per Danielsson	Technical Session 21 - Mechanics of internal Erosion Chair: Christophe Chevalier
	<p>O79: The cautionary parable of Goldilocks and the 3 scour parameters, <i>Terry Griffiths</i></p> <p>O80: Sonora Road over Martells Creek Bridge, Stanislaus County, California Engineering Analyses and Scour Countermeasure Selection – A Case Study, <i>Martin McIlroy</i></p> <p>O81: Lessons learned from predicting long-term river erosion in a changing climate as input to landslide risk assessments, <i>Karin Odén</i></p> <p>O82: Foundation installation in sandwave fields. Field observations of sandwave regeneration and sediment infill, <i>Andreas Roulund</i></p>	<p>O83: Scour measurement and estimation in small meandering channels in glacially modified landscapes, <i>Bryce Molder</i></p> <p>O84: The role of gravel shoals on scour and erosion in the Yellowstone River during the 2022 flood event, <i>Nina Stark</i></p> <p>O85: Experimental Study On The Effect Of Grain Size Distributions Of Bed Materials On River Pier Destabilization Caused By Local Scouring, <i>Souei Takezaki</i></p> <p>O86: Numerical Modelling for Design of Scour Protection at Chandpur, Bangladesh, <i>Angela Thompson</i></p>	<p>O87: Experimental and Computational Studies on Influential Parameters on Suffusion, <i>Amirhassan Mehdizadeh</i></p> <p>O88: Impact of Stress State on Erodibility of Fine Particles in Internally Unstable Soils, <i>Meysam Mousavi</i></p> <p>O89: Influence of Suffusion on Shear Characteristics of Pumice Sand with Non-Plastic Fines in Relation to Compaction Condition, <i>Yoichi Watabe</i></p> <p>O90: Quantifying the effect of aquifer characteristics on 3D backward erosion, <i>Ligaya Wopereis</i></p>
15:00	Coffee break to go/ Exhibition (northern and western lounge)		
17:15 - 19:00	Departure from Scandic Copenhagen and boat trip through Copenhagen Harbour (arrival at dinner 18.55)		
19:00 - 02:00	Gala Dinner and Award Ceremony at Langelinie		
21 Sept.			
10.45-13.45	Technical Tour by boat: Middelfrunden Offshore Wind Farm, Øresund Bridge and Lillegrunden Offshore Wind Farm (Guides: Claus Iversen, Ole Juul Jensen, Thor Ugelvig Petersen)		