



**VENUE**

The conference will be held in hotel Imperial in the "Riviera Club - Golden Sands" seaside resort area near Varna. Riviera Club provides first class venues for bringing together scientists, engineers and decision makers from around the world to share and discuss related research, design, construction, and maintenance issues.



**Fourth International Conference**

**Port Development and Coastal Environment**

*Final Program*

**PDCE'2007**

**Varna, Bulgaria**



**PDCE 2007 CONFERENCE SECRETARIAT:**  
 Black Sea Coastal Association  
 Capt. R. Serafimov 1, 9021 Varna, Bulgaria  
 Tel. +359 52 383 719 /Fax: +359 52 391 443  
 E-mail: office@bsca.bg

**25th – 27th September 2007, Varna, Bulgaria**



# 10 Years Black Sea Coastal Association

## WELCOME TO PDCE 2007 VARNA

The Organizing Committee of PDCE 2007, the International Scientific Advisory Board, and the Black Sea Coastal Association welcome you to attend the 4th International Conference on Port Development & Coastal Environment, which will be held in Varna, Bulgaria, from September 25 through 27, 2007. PDCE 2007 continues the successful conference series held in Varna in 1997, 2000, and 2003, as an important multidisciplinary international forum on port and coastal engineering, environmental protection, and related sciences. On behalf of the organisers, we welcome you to PDCE 2007 and wish you a fruitful and pleasant stay in Bulgaria.

## REGISTRATION

All delegates must register at the conference registration desk before the opening. Registration time is indicated on the technical program. A personal package including all conference materials will be available to all delegates.

## COMMUNICATIONS

Please address all your questions and/or requests for communications to the registration desk, which will be open during the whole conference. In addition, a notice board will be available for short announcements. All rooms in the conference hotel are equipped with Internet cable connection.

## TECHNICAL SESSIONS, PRESENTATIONS

There are 9 technical sessions for presentation of papers. Each presentation has been allocated 15 minutes with 5 minutes for discussions (20 minutes in total). The conference hall will be equipped with a laptop computer and multi-media projector for PowerPoint presentations. A staff member will be available to assist with file transfer and any problems of compatibility. Files are recommended to be delivered on the day before the presentation, and not later than 3 hours before the relevant technical session.

## CONFERENCE PROCEEDINGS

The proceedings of the Conference have been published in book form. The book will be available to delegates at the conference registration desk. A CD-ROM with the proceedings will be also included in the delegates' registration package. The proceedings will be distributed after the Conference also to organisations and institutions concerned with port, coastal and environmental issues.

## LANGUAGE

The official language of the Conference will be English.

## POST CONFERENCE TOURS

**Tour # 1:** A special boat cruise along the Black Sea coast (from Varna to the ancient town of Balchik) is planned to take place on the day after the Conference. The trip shall last about 6 - 8 hours in total (including return to Varna), and shall include lunch, refreshments and other amusements.

**Tour # 2:** A three day excursion round Bulgaria is offered immediately after the conference. It will include country side mountain areas, visit to Bulgarian capital Sofia, and a number of places presenting Bulgarian traditions and contemporary way of life.



## ORGANISED BY:

Black Sea Coastal Association (BSCA), Varna, Bulgaria

*With the special support of*

Central Dredging Association (CEDA), Delft, the Netherlands

## SUPPORTED BY:

Ministry of Environment and Water of Bulgaria

Ministry of Transportation of Bulgaria

Ministry of Regional Development and Public Works of Bulgaria

European Dredging Association, Brussels, Belgium

Port of Varna PLC, Bulgaria

Delft University of Technology, the Netherlands

Franzius-Institut für Wasserbau und Küsteningenieurwesen, Hannover, Germany

University of Architecture, Civil Engineering and Geodesy, Sofia, Bulgaria

## INTERNATIONAL SCIENTIFIC ADVISORY BOARD

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## LOCAL ORGANISING COMMITTEE:

Valeri Penchev, Bulgaria

Boyana Savova, Bulgaria

Kristjo Daskalov, Bulgaria

27 September 2007, Thursday

9:00-10:00	Session 5 (A): COASTAL STRUCTURES, <i>Chairman H.J. Verhagen</i>
9:00-9:20	 G. Wolters, <i>WL   Delft Hydraulics, the Netherlands</i> , G. Müller, <i>University of Southampton, UK</i> GRAVITY INDUCED STRESSES IN STEEPENED AND UNDERCUT COASTAL ROCK CLIFFS
9:20-9:40	 C. Makris, I. Avgeris, C. Memos, <i>National Technical University of Athens</i> HYDRAULIC BEHAVIOUR OF SUBMERGED BREAKWATERS: A CASE STUDY
9:40-10:00	 M. Calabrese, P. Di Pace, F. Ciardulli, M. Buccino, <i>University of Naples "Federico II", Italy</i> A TENTATIVE FORMULA FOR LOW CRESTED BREAKWATERS RANGING FROM SUBMERGED TO EXPOSED
10:00-10:20	Coffee break
10:20-12:00	Session 5 (B): COASTAL MORPHOLOGY, <i>Chairman C. Memos</i>
10:20-10:40	 N. Tien Lam, <i>Water Resources University, Vietnam</i> , M.J.F. Stive, H.J. Verhagen, Z.B. Wang, <i>Delft University of Technology, the Netherlands</i> MORPHODYNAMICS OF TIDAL INLETS IN A TROPICAL MONSOON AREA
10:40-11:00	 E. Trifonova, <i>Institute of Oceanology - Bulgarian Academy of Sciences, Bulgaria</i> MODELLING OF CROSS SHORE PROFILE CHANGES UNDER COMBINATION OF EXTREME STORM EVENTS
11:00-11:20	 R. Bakhtyar, A. Ghaeri, A.Y. Bakhtiary, <i>Iran University of Science &amp; Technology, Iran</i> THE INTERACTION BETWEEN THE FLOW IN THE SWASH ZONE AND THE COASTAL WATER TABLE
11:20-11:40	 C. Secuiu, C. Costache, <i>Environmental Protection Agency, Constanta, Romania</i> COASTAL EROSION OF THE CONSTANTA COASTLINE - CAUSES AND SOLUTIONS
11:40-12:00	 R. Mateescu, D. Diaconeasa, S. Petrisoia, <i>National Institute for Marine Research &amp; Development "Grigore Antipa", Romania</i> , EXTENSION AND OPTIMIZATION OF THE EXISTENT SHORE PROTECTION FACILITIES ON ROMANIAN SOUTHERN LITTORAL
12:00-13:30	Lunch break
13:30-14:30	Session 6: COASTAL ZONE MANAGEMENT, <i>Chairman L. Franco</i>
13:30-13:50	 N. von Lieberman, T. Albers, <i>Hamburg University of Technology, River and Coastal Engineering, Germany</i> COASTAL ZONE MANAGEMENT AT THE NORTH SEA ISLAND AMRUM
13:50-14:10	 T. Albers, N. von Lieberman, <i>Hamburg University of Technology, River and Coastal Engineering, Germany</i> MONITORING OF HYDRODYNAMICS AND MORPHODYNAMICS IN A TIDAL FLAT AREA
14:10-14:30	 N. Ohle, C. Freitag, T. Strotmann, H. Glindemann, <i>Hamburg Port Authority, Germany</i> A FUTURE ACTION PLAN FOR THE ELBE ESTUARY
14:30-14:50	Coffee break
14:50-17:00	Session 7: POLICY ISSUES, <i>Chairman T. Neville Burt</i>
14:50-15:05	 Representative of the <i>Ministry of Transport of Bulgaria</i> NATIONAL PORT DEVELOPMENT PROGRAM (2006-2015)
15:05-15:20	 H. J. Verhagen, <i>TU - Delft, the Netherlands</i> PRESENTATION ON PIANC ACTIVITIES
15:20-15:35	 L. van Duivenbode, <i>POVVIK, the Netherlands</i> "MY COAST": TRANSFERRING THE INTEGRATED AREA APPROACH TO BULGARIA
15:35-15:50	 B. Savov, <i>Black Sea Coastal Association, Bulgaria</i> BUILDING EXPERTISE IN PORT & COASTAL ENGINEERING IN BULGARIA
15:50-17:00	ROUND TABLE DISCUSSIONS, <i>Chairman T. Neville Burt</i>
17:00	CLOSING
20:00	Conference Banquet

**FINAL PROGRAM**

24 September 2007, Monday

9:00 – 16:30	Meeting of Environmental Steering Committee of CEDA
16:00 – 18:00	Registration of PDCE Conference Participants
19:00	Ice-Breaking Party (PDCE and ESC)

25 September 2007, Tuesday

9:00- 9:30	Registration of Conference Participants
9:30-10:00	OPENING. KEYNOTE ADDRESS.
10:00-10:20	Coffee break
10:20-12:00	Session : PORT DEVELOPMENT
12:00-13:00	Lunch break
13:00-14:40	Session 2 (A): DREDGING AND ENVIRONMENT, PRESENTED BY CEDA
14:40-15:00	Coffee break
15:00-16:00	Session 2 (B): DREDGING AND ENVIRONMENT, PRESENTED BY CEDA
16:00-17:30	PANNEL DISCUSSION: DREDGING AND ENVIRONMENT

26 September 2007, Wednesday

9:00-10:20	Session 3: ENVIRONMENTAL ISSUES
10:20-10:40	Coffee break
10:40-12:20	Session 4 (A): NUMERICAL MODELLING (WAVES, CURRENTS, SEDIMENTS)
12:20-13:20	Lunch break
13:20-14:20	Session 4 (B): NUMERICAL MODELLING (WAVE-STRUCTURE INTERACTION)
14:20-14:40	Coffee break
14:40-16:00	Session 4 (C): NUMERICAL MODELLING (HYDRODYNAMICS)
16:00-19:00	STUDY TOUR

27 September 2007, Thursday

9:00-10:00	Session 5 (A): COASTAL STRUCTURES
10:00-10:20	Coffee break
10:20-12:00	Session 5 (B): COASTAL MORPHOLOGY
12:00-13:30	Lunch break
13:30-14:30	Session 6: COASTAL ZONE MANAGEMENT
14:30-14:50	Coffee break
14:50-17:00	Session 7: POLICY ISSUES
17:00	CLOSING
20:00	Conference Banquet

25 September 2007, Tuesday

9:00- 9:30	Registration of Conference Participants
9:30-10:00	Opening. Keynote address
10:00-10:20	Coffee break
10:20-12:00	Session 1: PORT DEVELOPMENT, <i>Chairman C. Zimmermann</i>
10:20-10:40	A Noli, <i>MODIMAR Roma</i> , L. Franco, <i>University of Rome</i> , P. De Girolamo, <i>University of L'Aquila</i> , G. Ilevolella, <i>Ministry of Public Works, Italy</i> 
10:40-11:00	K. D. Hofseth, S. A. Heisey, <i>U.S. Army Corps of Engineers, Institute for Water Resources</i> C. M. Rogers, <i>CDM, USA</i> , and R. M. Males, <i>RMM Technical Services, Inc, USA</i> 
11:00-11:20	M. Hannam, <i>CARES Ltd, Coastal and Reclamation Engineering Services, UK</i> 
11:20-11:40	A. Roubos, <i>Rotterdam Public Works Department</i> , H.J. Verhagen, <i>Technical University of Delft, the Netherlands</i> 
11:40-12:00	A. Matheja, L. Schweter, <i>Franzius-Institut, Leibniz University of Hannover, Germany</i> 
12:00-13:00	Lunch break
13:00-14:40	Session 2 (A): DREDGING AND ENVIRONMENT - <i>Presented by CEDA, Chairperson A. Csitti</i>
13:00-13:30	T. Neville Burt, <i>Hydraulics Research Wallingford</i> 
13:30-14:00	F. J. Mink, <i>Interel EPA, Belgium</i> , W. Dirks, <i>Van Oord NV, Netherlands</i> , G. H. van Raalte, <i>Royal Boskalis / Hydronamic, Netherlands</i> , H. de Vlieger, <i>DEME/DEC, Belgium</i> , M. Russell, <i>BMAPA, UK</i> 
14:00-14:20	F. Scheffer, <i>Ministry of Transport, Public Works and Water Management, Netherlands</i> 
14:20-14:40	H. Meyer, <i>Water- and Shipping Directorate (WSD) Northwest, Germany</i> 
14:40-15:00	Coffee break
15:00-16:00	Session 2 (B): DREDGING AND ENVIRONMENT - <i>Presented by CEDA, Chairman G.H. van Raalte</i>
15:00-15:20	A. Netzband, <i>HPA Hamburg Port Authority</i> 
15:20-15:40	S. Bolam et al., <i>Centre for Environment, Fisheries and Aquaculture Science (CEFAS), UK</i> 
15:40-16:00	S. Birchenough et al., <i>Centre for Environment, Fisheries and Aquaculture Science (CEFAS), UK</i> 
16:00-17:30	PANNEL DISCUSSION: DREDGING AND ENVIRONMENT, <i>Chairman H. P. Laboyrie</i>

26 September 2007, Wednesday

9:00-10:20	Session 3: ENVIRONMENTAL ISSUES, <i>Chairperson L. Murray</i>
9:00-9:20	B. Ondiviela et al., <i>University of Cantabria, Spain</i> 
9:20-9:40	A. G. Gomez et al., <i>University of Cantabria, Spain</i> 
9:40-10:00	G. Palantzias, A. Naniopoulos, C. Koutitas <i>Aristotle University of Thessaloniki</i> , P. Theodosiou, <i>Thessaloniki Port Authority, Greece</i> , USER PERCEPTION OF SHIP-WASTE RECEPTION FACILITIES AND RELEVANT CHARGES. THE THESSALONIKI PORT CASE STUDY 
10:00-10:20	S. Blake et al., <i>Centre for Environment, Fisheries and Aquaculture Science (CEFAS), UK</i> 
10:20-10:40	Coffee break
10:40-12:20	Session 4 (A): NUMERICAL MODELLING (WAVES, CURRENTS, SEDIMENTS), <i>Chairman P. Prinos</i>
10:40-11:00	O. Larsen, <i>DHI Water &amp; Environment, Germany</i> , K. Vamvakopoulos, <i>Max Planck Institute for Marine Microbiology, Germany</i> , MONITORING AND MODELLING CONTAMINANTS IN HARBOUR BASINS: COUPLING HYDRAULIC AND SEDIMENT MODELS 
11:00-11:20	P. Guirguinova, K. Daskalov, <i>University of Architecture, Civil Engineering and Geodesy, Sofia, Bulgaria</i> 
11:20-11:40	O. Stoschek, <i>DHI Wasser und Umwelt, Germany</i> 
11:40-12:00	M. Buccino, G. Del Vecchio, M. Calabrese, <i>University Federico II di Napoli, Italy</i> 
12:00-12:20	N. Valchev, Z. Belberov, A. Palazov, <i>Institute of Oceanology – BAS, I. Davidan, State Oceanographic Institute, St. Petersburg, Russia</i> , PRACTICABILITY OF WIND WAVE SIMULATIONS FORCED WITH THE GLOBAL REANALYSIS WINDS IN THE BLACK SEA DEEP AND SHALLOW WATERS 
12:20-13:20	Lunch break
13:20-14:20	Session 4 (B): NUMERICAL MODELLING (WAVE-STRUCTURE INTERACTION), <i>Chairman G. Wolters</i>
13:20-13:40	V. Penchev, <i>Black Sea Coastal Association, Bulgaria</i> , S. Shukrieva, <i>BSHC - Bulgarian Academy of Sciences, Bulgaria</i> , UMERICAL SIMULATION OF WIND WAVE SIMULATIONS FORCED WITH THE APPLICATIONS FOR BULGARIAN BLACK SEA COAST 
13:40-14:00	P. Prinos, I. Avgeris, <i>Aristotle University of Thessaloniki</i> , S. Shao, <i>University of Bradford, UK</i> 
14:00-14:20	S. Shukrieva, <i>BSHC - Bulgarian Academy of Sciences, Bulgaria</i> 
14:20-14:40	Coffee break
14:40-16:00	Session 4 (C): NUMERICAL MODELLING (HYDRODYNAMICS), <i>Chairman K. Hofseth</i>
14:40-15:00	R. Tamsalu, V. Zalesny, <i>Estonian Marine Institute, Estonia</i> 
15:00-15:20	M. Sadrienasab, <i>Khorramshahr University of Marine Science and Technology, Iran</i> 
15:20-15:40	A. D. Nguyen, <i>UNESCO-IHE Institute for Water Education, Delft</i> , H. Savenije, <i>TU Delft</i> , D.N. Pham, D.T. Tang, <i>Southern Institute for Water Resources Research, Vietnam</i> , TIDAL WAVE PROPAGATION IN THE BRANCHES OF A MULTI-CHANNEL ESTUARY: THE MEKONG DELTA CASE 
15:40-16:00	H. Spekker, N. Goseberg, C. Zimmermann, <i>Franzius-Institut, Leibniz University of Hannover, Germany</i> 
16:00-19:00	STUDY TOUR: <i>Port of Varna; Port of Balchik; Coastal sites</i>