

FOREWORD

The Coastal Structures '07 International Conference held in Venice, Italy, in July 2007, has been the fifth in a series sponsored by ASCE/COPRI that highlighted significant progress in breakwaters, seawalls, jetties and harbours innovation, design and construction. The first Coastal Structures Conference was held in Alexandria-Virginia in 1979; then in Arlington-Virginia (1983) and every fourth year in Santander - Spain (1999), in Portland-Oregon (2003) and in Venice. During the last 30 years, a significant progress occurred in the field of breakwater engineering, where formulae and simple model techniques have been replaced with more rational methods and a greater respect for "field and physics" in planning and design.

Within this race for innovation, year 2007 represented a favourable period in the evolution of coastal structures as it is demonstrated by the unique coastal works, represented by the mobile barriers against storm surges, now under construction at the Lido, Malamocco, and Chioggia inlets of the Venice lagoon. The 78 oscillating buoyant flap gates intend to protect the lagoon area, its inhabitants, its extraordinary historical, artistic and environmental heritage from high water events and made Venice and Lido the perfect venue for the Coastal Structures '07 International Conference which attracted 291 attendees from over 30 countries discussing research and applications in coastal engineering.

A busy final program included 216 selected presentations, either in the traditional "oral format" or in a novel format including a brief oral announcement and a full poster discussion, postponed half day after the announcement to let interested participants read the poster. Both kinds of presented papers are included in these Proceedings. The papers have been listed within the five main original conference topics, even if their sequence generally follows that of the actual presentations within the 11 x 3 technical sessions, which included non traditional themes such as tsunamis and storm surge barriers, climate changes, piled coastal structures, ecological issues, monitoring and management for a sustainable development.

With the work of the secretariat, the LOC and IAC, the persons who generously served as Chairmen of the technical sessions, the financial sponsors and the exhibitors, this Conference has represented one of the premier technical meeting on Coastal Structures. These Proceedings amply reflect both the new scientific research results and the practical engineering achievements in many countries, fully in line with the concept of the Coastal Structures Conferences.

This successful 5th edition gives more energy for organizing future Coastal Structures Conferences so that researchers and engineers from all countries will be able to participate in an exciting field with numerous intriguing problems to be solved.

See You in Japan in 2011.

The Coastal Structures '07 Local Organizing Committee