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PRESENTATION

by

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Sea water has played a fundamental role in the lives, history, and culture of mankind and civilization since pre-history. Coastal areas represent the natural interface for production of goods and food, exchange of people and trading. Given the public's enjoyment of the coast as residents or visitors and nowadays the related production of an additional income for the Nation, we must all use care and restraint to preserve and enhance our waterfront for future generations. In addition, under a Global change mitigation policy, offshore turbines for wind energy production represent a new challenge.

All this goes through a continuous evolving interaction between mankind and Nature, the impact of human activities on the coastal areas is gradually manifesting and is reflected by pollution of marine sites, increasing incidence of floods, water level, wave storminess and related changes in wave induced hydrodynamics, coastal erosion, and lowered groundwater tables.

In order to manage the Coastal zone, a truly resilient community requires correct pathway design and the active input of scientists, engineers, geologists, and oceanographers in conjunction with community planners and managers, social scientists, policy makers, and the community itself.

Based on the Short Course/Conference on Applied Coastal Research 2019, one publication was planned with 15 peer-reviewed articles: namely a special issue (IJEGE, 2020) entitled, "Coastal mitigation of Global change impact by innovative and resilient measures". The Short Conference/Course on Applied Coastal Research (www.scacr.eu) is a technical conference series focusing on research issues related to Ocean & Coastal dynamics, Climate change impact & adaptation, Coastal engineering, Oceanography, Geology & Ecology, Water quality & remedial actions, Coastal hydrodynamics & marine pollution, Extreme events assessment & mitigation, and bringing together students and top level researchers and practitioners.

It is, therefore, of interest for PhD students, field and laboratory experimentalists, theoreticians and modellers, all of them with an interest on the physical processes in the coastal zone and their interactions with the structures and ecosystems.

SCACR2019 was hosted by Polytechnic of Bari (DICATECh) and University of Salento (DII) located in the Region Puglia (Italy) which is characterized by a nearly 900 km long coastline, presenting visible impacts from anthropic activities and Global change, like increasing dune erosion, flooding risk, outbreak of alien species, marine pollution. Polytechnic of Bari is a research unit of the project STIMARE (granted by the Ministry for Environment); University of Salento is scientific coordinator for the research project INNODUNECOST (granted by Regione Puglia). STIMARE (Innovative strategies, monitoring and analysis of the coastal erosion risk) aims at defining strategies for coastal management, based on a strong involvement of the stakeholders, and on the use of innovative or low-costs technologies for coastal monitoring. INNODUNECOST studies and verifies with a pilot case the remediation of dunes eroded under wind/wave action by a not toxic mineral grout colloidal silica based. This grout is a transparent suspension of nanometric colloidal silica particles, like liquid sand, activated by water with NaCl diluted inside it.

In SCACR2019, we were fortunate to have invited speakers such as Prof. Waleed Hamza (UAEU, Al Ain), Prof. John Paul Latham (Imperial College of London, UK), Prof. Nobuhisa Kobayashi (University of Delaware, USA), Dr. Marcel van Gent (Deltares, NL), Prof. Yalcin Yuksel (Yildiz Teknik University, TK), Prof. Gregorio Iglesias (University College Cork, IR), together with specialists and engineers.

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