OCEANS ’09 IEEE Bremen Abstract Topics

OCEANS ’09 IEEE Bremen - Topics and Themes

BRE.0 Bremen – Balancing Technology with Future Needs
- **BRE.1 Marine Aquaculture**
- **BRE.2 Renewable Energy- offshore wind, solar and tide energy conversion**
- **BRE.3 Integrated coastal observing strategies**
- **BRE.4 Global observatory initiatives**
- **BRE.5 The ocean component for GEOSS**
- **BRE.6 Estuary systems and Wadden areas in the North and Baltic Sea**
- **BRE.7 Conservation versus economy – finding the right balance**

OCEANS ’09 IEEE Bremen – OCEANS Conference Core Topics

1.0 UNDERWATER ACOUSTICS AND ACOUSTICAL OCEANOGRAPHY
- **1.1 Sonar and transducers**
- **1.2 Calibration of acoustic systems and metrology**
- **1.3 Sound propagation and scattering**
- **1.4 Acoustical oceanography**
- **1.5 Geoacoustic inversion**
- **1.6 Bioacoustics**
- **1.7 Seismo-acoustics**
- **1.8 Ocean noise**
- **1.9 Signal coherence and fluctuation**

2.0 SONAR SIGNAL / IMAGE PROCESSING AND COMMUNICATION
- **2.1 Sonar signal processing**
- **2.2 Array signal processing and array design**
- **2.3 Model-based signal processing techniques**
- **2.4 Vector sensor processing**
- **2.5 Synthetic aperture (active and passive)**
- **2.6 Classification and pattern recognition (parametric and non-parametric)**
- **2.7 Sonar imaging**
- **2.8 Acoustic telemetry and communication**
- **2.9 Biologically inspired processing**

3.0 OCEAN OBSERVING PLATFORMS, SYSTEMS, AND INSTRUMENTATION
- **3.1 Automatic control**
- **3.2 Current measurement technology**
- **3.3 Oceanographic instrumentation and sensors**
- **3.4 Systems and observatories**
- **3.5 Buoy technology**
- **3.6 Cables and connectors**
- **3.7 Marine geodetic information systems**

4.0 REMOTE SENSING
- **4.1 Air / sea interaction**
- **4.2 Lidar**
- **4.3 Passive observing sensors**
- **4.4 Coastal radars**
- **4.5 Ocean color and hyperspectral measurements**
- **4.6 Airborne and satellite radar and SAR**
- **4.7 Operational observation**
- **4.8 Sensor synergy**
- **4.9 Space systems**

5.0 OCEAN DATA VISUALIZATION, MODELING, AND INFORMATION MANAGEMENT
- **5.1 Access, custody, and retrieval of data**
- **5.2 Data visualization**
- **5.3 Numerical modeling and simulation**
- **5.4 Marine GIS and data fusion**
- **5.5 Information management**
- **5.6 Data assimilation**

6.0 MARINE ENVIRONMENT, OCEANOGRAPHY, AND METEOROLOGY
- **6.1 Oceanography: physical, geological, chemical, biological**
- **6.2 Marine geology and geophysics**
- **6.3 Hydrography / seafloor mapping / geodesy**
- **6.4 Hydrodynamics**
- **6.5 Marine life and ecosystems**
- **6.6 Meteorology**
- **6.7 Pollution monitoring**
- **6.8 Mineral resources**

7.0 OPTICS, IMAGING, VISION, AND E-M SYSTEMS
- **7.1 Imaging and vision**
- **7.2 Beam propagation**
- **7.3 Optical sensors and adaptive optics**
- **7.4 Marine optics technology and instrumentation**
- **7.5 Holography and 3D imaging**
- **7.6 Optical communication**
- **7.7 E-M sensing**

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8.0 MARINE LAW, POLICY, MANAGEMENT, AND EDUCATION

- **8.1 Coastal zone management**
- **8.2 Ocean economic potential**
- **8.3 Marine law and policy**
- **8.4 International issues**
- **8.5 Marine safety and security**
- **8.6 Law of the Sea and UNCLOS**
- **8.7 Ocean resources**
- **8.8 Marine education and outreach**
- **8.9 Ocean economic potential**
- **8.10 Marine archaeology**

9.0 OFFSHORE STRUCTURES AND TECHNOLOGY

- **9.1 Ocean energy**
- **9.2 Ropes and tension members**
- **9.3 Offshore structures**
- **9.4 Marine materials science**
- **9.5 Marine salvage**
- **9.6 Diving**
- **9.7 Pollution clean-up and pollution remediation**
- **9.8 Deepwater development technology**
- **9.9 Seafloor engineering**
- **9.10 Ocean exploration**

10.0 OCEAN VEHICLES AND FLOATING STRUCTURES

- **10.1 Vehicle design**
- **10.2 Vehicle navigation**
- **10.3 Vehicle performance**
- **10.4 Autonomous underwater vehicles**
- **10.5 Manned underwater vehicles**
- **10.6 Remotely operated vehicles**
- **10.7 Dynamic positioning**
- **10.8 Moorings, rigging, and anchors**
- **10.9 Naval architecture**

11.0 OTHER

- **11.1 Other**