

# OCEANS '08 MTS/IEEE Quebec Abstract Topics

## OCEANS '08 MTS/IEEE Quebec - Topics and Themes

### QUE.0 Quebec - Oceans, Poles, and Climate: Technological Challenges

QUE.1 An ice-free Arctic Ocean: navigational, legal, and policy issues

QUE.2 Adapting technology and instrumentation to ice-covered seas

QUE.3 Long-term observation of Polar Oceans: status and challenges for the future

QUE.4 Technological challenges in linking Ocean and Climate Sciences

QUE.5 Ocean biodiversity and molecular technologies

QUE.6 Technological challenges in biological / fisheries oceanography

QUE.7 The Saint Lawrence and its deep arctic channel

## OCEANS '08 MTS/IEEE Quebec - 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

# OCEANS '08 MTS/IEEE Quebec Abstract Topics

## 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

## 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