

Technical Program & Topics

(<https://www.oceans19marseille.org/technical-program-topics/>)

OCEANS conference is jointly sponsored by the IEEE Oceanic Engineering Society (IEEE/OES) and the Marine Technology Society (MTS) and is one of the most influential international conference in this field, where you can discover all the new technologies and dedicated research linked to the comprehension of oceans. OCEANS 2019 Marseille will be a fantastic place for information sharing and networking, with an Exhibition, several tutorials on special interest topics, hundreds of technical presentations and a student poster program.

SPECIAL MARSEILLE TOPICS

- 0. OCEANS : A KEYNOTE OF THE CLIMATE CHANGE ?
 - 0.1 Marine observatories
 - 0.2 Renewable energies
 - 0.3 Ocean noise evolution
 - 0.4 Marine life transformation
 - 0.5 Marine pollution

STANDARD OCEANS TECHNICAL TOPICS

- 1. 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. 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. 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. 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. 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
 - 5.7 Real-Time Data Quality Control
- 6. 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. 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. 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 Marine archaeology
- 9. 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. 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