



National Symposium on

Acoustic Metrology & Acoustic Monitoring of the oceans



Venue:
**National Institute of Ocean Technology,
Velachery-Tambaram Main Road,
Narayanapuram,
Pallikaranai,
Chennai - 600100.**

Date:
April 28 - 29, 2025

NIOT

National Institute of Ocean Technology (NIOT) was established in November 1993 as an autonomous society under the Ministry of Earth Sciences (MoES), Government of India. NIOT works with a mandate to develop reliable indigenous technologies to solve various engineering challenges associated with harvesting non-living and living resources in the Indian Exclusive Economic Zone (EEZ)

Ocean Acoustics

Over the last 20 years, the Ocean Acoustics Group of NIOT has developed significant expertise in underwater acoustics. The group has successfully designed and deployed advanced underwater acoustic systems for ocean applications, conducted ambient noise measurements in deep and coastal waters as well as Polar regions, and developed underwater acoustic systems for source localization and strategic applications



A state-of-the-art Acoustic Test Facility (ATF) was established in NIOT in the year 2002 to cater to the needs of testing and calibration of underwater acoustic transducers/instruments of NIOT and external research organizations, universities, and industries. This facility was accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) for the calibration and testing of transducers. Since January 2024 NIOT has become the Designated Institute in underwater acoustics in India, under BIPM Paris, through CSIR-NPL

CSIR NPL

CSIR-National Physical Laboratory (NPL-India), established in 1947 and headquartered in New Delhi, is India's "National Metrology Institute" (NMI) and is the custodian of "National Standards" with a responsibility of the dissemination of measurements to the needs of the Country. CSIR-NPL is committed to providing apex-level calibration, testing services and dissemination of standards for maintaining the traceability of measurements to the customers, fulfilling the requirements of IS/ISO/IEC 17025: 2017



Airborne Acoustics Metrology

The Acoustic Metrology Division at the CSIR-NPL plays a crucial role in maintaining and advancing India's national measurement standards in acoustics. The division maintains a primary standard of sound pressure. The division is responsible for maintaining and continually upgrading these national measurement standards of sound and for disseminating the standard by providing high-level calibration service to the industry and institutions of India, thus ensuring the traceability of measurements. The major activities involved are the calibration of acoustical instruments, evaluation of industrial products and acoustical materials, performance characteristics of audio devices, auditorium acoustics, and noise and vibration measurements and control

About the symposium

NIOT and CSIR-NPL are delighted to announce a two-day symposium on "Acoustic Metrology and Acoustic Monitoring of the Oceans." This symposium aims to bring together researchers, industry experts, stakeholders and students to shed light on the importance of acoustic metrology for ocean as well as air and the significance of acoustic monitoring of the oceans. Join us for invited talks, presentations by eminent scientists and researchers, demonstrations in underwater acoustic test facility and laboratory visits

Key Objectives:

- ▶ To bring awareness to the stakeholders and young researchers in underwater and air acoustics, for strengthening measurement traceability
- ▶ To impart knowledge about acoustic monitoring and acoustic data analysis, testing of acoustical materials in Reverberation chambers and Noise Measurements & Analysis in Anechoic chambers
- ▶ To showcase recent advances in the acoustic measurement systems and calibration techniques
- ▶ To demonstrate the capabilities of the underwater Acoustic Test Facility (ATF) and the state-of-the-art instrumentation
- ▶ To explore innovations in the field of acoustic metrology and passive acoustic monitoring of the oceans, Environmental Noise Monitoring, Mapping and Control

Who Should Attend?

Researchers, scientists, industry professionals, students and academicians who are involved in air and underwater acoustic measurements, calibrations processes and ocean acoustics research

Registration and Participation

No Registration fee. Participants must register through the following link : <https://forms.gle/jGYUUBs4zwV8ugAY8> on or before 10 April 2025



Travel & Accommodation

- ▶ Travel and accommodations are to be arranged on their own.
- ▶ However outstation students shall receive travel reimbursement (Three-tier AC to & fro fare)
- ▶ Boarding & Lodging arrangements for students shall be arranged by NIOT on request

Contact

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