

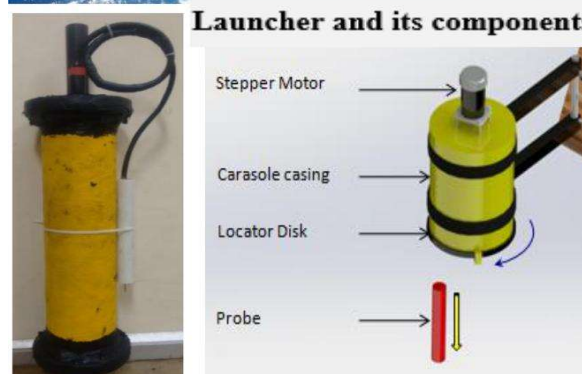
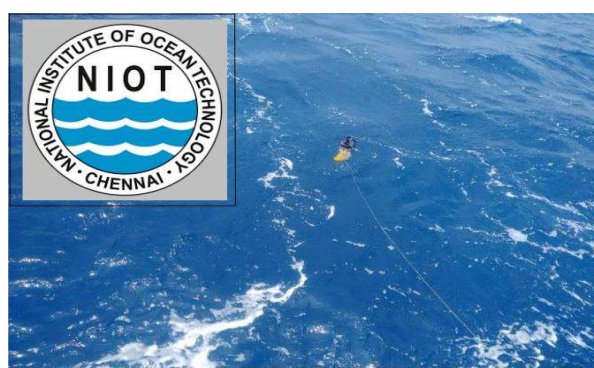


WIRELESS EXPANDABLE CONDUCTIVITY TEMPERATURE AND DEPTH (WXCTD) PROFILER SYSTEM TECHNOLOGY



The temperature and salinity are the important parameters for deriving sound velocity in the seawater which is used for vessel-based sonar's. The continuous and periodical measurements of conductivity, temperature is essential for climates mitigation. Embedding all the necessary requirements, an expendable conductivity, temperature and depth system is developed for oceanography measurements. An Expendable Bathythermograph (XBT) is a temperature probe that is dropped into the ocean from a ship, either by hand or using an automatic launching system. It can be freely dropped by hand from any ships without environmental interventions also and data is collected, transferred using wireless communication technology. The data can be collected either in descending or ascending operation which is being implemented using positive and negative buoyancy methodology.

The WXCTD is a system used to measure and store the CTD data in real time upon surfacing in Ocean. The user configurable depth profiling data is obtained and stored for transmission. It is widely used to study and understand about upper ocean thermal structures. The high accurate conductivity and temperature data is collected throughout the profile incorporating pressure-based depth sensor without any calculation or assumption. Accurate depth measurements can be attained using pressure sensors. Single float can be configured for various depth ranges. Data transfer through wireless communication and the equipment can be operated either by hand or automatic launcher. WXCTD is a low power operated system with rechargeable batteries. RTC update is possible.



This technology is developed by **National Institute of Ocean Technology**, Ministry of Earth Sciences, Govt. of India and seeks to stimulate the use of technology by commercialization under Make in India Initiative and **National Research Development Corporation** will facilitate for smooth transfer and licensing of the technology with affordable Licencing terms and conditions.

Any company or organization interested in the technical know-how and to get more details about the technology please refer the contact details below.

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