

SUB BOTTOM PROFILER SYSTEM

BRIEF DESCRIPTION:

Shallow water Chirp sub bottom profiler was developed that can profile sea bed with penetration up to 1m in fine sand/clay operable up to 30m depth. It is a tow body-based sonar system which can be towed behind a vessel even in very shallow waters where small fishing vessels can operate. The sub bottom profiler operates in the low frequency range in 2-24 kHz and is user friendly. The sub systems like Signal generator, Power amplifier, Transmitter, Hydrophone arrays, Preamplifiers, Data Acquisition systems (DAQ), signal processing software etc are fully Indigenous and Patent applications are also filed for the individual systems.

ADVANTAGE:

An umbilical tow cable having conductors for power and Ethernet is used to establish the link between these dry and wet end systems. The deck system consists of only an industrial laptop with MATLAB (for real time signal processing and image generation) and all other sub systems like AC-DC converter (230VAC- 220 VDC) to power up the are housed inside the tow body. The system has user friendly GUI which is installed in the deck side industrial laptop. Operational parameters of the system like frequency of operation, pulse length, transmitting signal power, data acquisition duration, gain of programmable gain amplifiers, etc. are configurable in the GUI.

Scale of development: Ready for licensing of Technology.

