**Modern ESM System - Varuna**

Varuna is a ship-borne Modern ESM System for installation on major class of naval ships of Indian Navy. It is capable to intercept, detect, analyze and identify LPI radars along with conventional radars. The system has got Wide Open Reception capability in 0.4-18 GHz frequency range and LPI Reception capability in 2.2-18 GHz frequency range with instantaneous bandwidth of 1000 MHz. Both Wide Open & LPI interception modes have 360° azimuth coverage. The system has high end FPGA and high speed Processor based ESM Processor to build, update and monitor activity of 500 Radar emitters in dense environment and to automatically identify all emitters by instant signature match with an in-built library. It has also got built-in Radar Finger Printing System (RFPS) with high speed Data Acquisition and multiple Digital Signal Processors to carry out inter/intra-pulse analysis and unique radar identification of selected emitter. The system provides Man-Machine interface for system operation and presentation of ESM data and RFPS data to ES Operator on ES Operator Console with dual monitors facilitating single operator to carry out control and operation of the system.

