**NICOP Lab**

**(Naval International Cooperation Laboratory)**

This Laboratory was established from the grant received from Office of Naval Research Global (ONRG), Singapore on Hetero mental Oxides Nanostructures for Marine Coatings: Synthesis and Characterization. The total funding for this laboratory was approximately Rs. 1.5 Crore. And it is utilized by B.Tech., M.Tech & Ph.D Students for R&D Projects and dissertations. This lab has Holmarc HO-TH-04 Spray Pyrolysis equipment has been used for various oxide coating. The system automates various parameters such as flow rate, air pressure, etc. Moreover, ergonomically designed chamber provides clean and healthy atmosphere suitable for lab conditions. It has a Dip Coating Machine (Apex Xdip-SV1) and used whrtr coating is done by dipping a substrate into a coating material under controlled parameters to create a thin film of the coating material on the substrate. The sophisticated mechanism and precise controlling by the onboard microcontroller ensures accurate results every time.

A Potentiostat (BioLogic SP-150), with EIS and ultra low current option (measure upto pico ampere) is used for evaluation of corrosion protection behaviour of coating using EC-Lab® software package. Apart for these machinery, this lab also has Salt Spray Chamber, Slow Strain rate testing machine, Elctrospinning, Microscope, Oven etc.

Major Equipment:

* Spray Pyrolysis
* Tensometer
* Potentiostate
* Dip Coating System
* Optical microscope
* Nano-fabrication system
* Static load machine



