

OE2023: ARINE INSTRUMENTATION LAB

Course Content::

Basics of instrumentation systems; Working principles of different transducers and their calibration : Strain gauges, Potentiometers, LVDT, Velocity probes, Inclometers, Accelerometers, Pressure transducers, Wave probes, Load cells. Introduction to signal conditioning and data acquisition, and sources of errors in instrumentation systems

Text Books:

1. Instrumentation lab manual

Reference Books:

1. **Beckwith,T.G., Marangoni, R.D. and Lienhard, J.H.**, Mechanical Measurements, Addison Wesley, USA, 1993.
2. **Collacot, R.A.**, Structural Integrity Monitoring, Chapman and Hall, London, 1985.

Prerequisite: