

## Nearshore dynamics: A unique five institute joint field measurement exercise along Pondicherry coastline



A team of scientists from five different institutions: National Institute of Ocean Technology (NIOT), Chennai Integrated Coastal and Marine Area Management Project Directorate (ICMAM PD), Chennai; National Institute of Oceanography (NIO), Goa; and National Central University (NCU), Taiwan led by IIT Bombay has successfully demonstrated the joint capabilities through a one-day field measurement campaign to estimate the nearshore dynamics along Pondicherry coast, located about 150 kms south of Chennai. This field measurement exercise is a mark of an end to already existing research project jointly taken up by IIT Bombay and NCU Taiwan, funded by Govt. of India and Taiwan.

### Field measurement campaign

A wide range of field equipment; directional wave rider (DWR), acoustic doppler current profiler (ADCP), acoustic doppler velocimeter (ADV), miniature buoy and surface drifters of three different types are used to measure the various oceanographic parameters.

The nearshore wave transformations are measured, throughout the day, simultaneously by two DWRs, deployed at 10 m and 5 m water depth and a miniature wave buoy deployed at 7.5 m water depth. A number of drifters of three different types, to measure the wave induced nearshore surface currents, are repeatedly deployed and collected several times within the measurement zone that span about 600 m along the coast.

The first cut results of drifter experiments reveal the dominance of wave driven nearshore currents, in this region, which may influence the sediment transport alongshore.