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# Coastal Zones

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## Very low underwater background noise test bed

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Since late 70's CNR-INSEAN is technically and scientifically focused on radiated hydrodynamic noise measurements on any typology of seagoing bodies (surface and/or underwater). During long years of activities a number of indoor facilities and both experimental and theoretical EFD (Experimental Fluid Dynamics) techniques have been used and developed in order to investigate, understand and prevent topics such as: both inner and radiated propeller noise evaluation and reduction, propeller-rudder-wake "noisy" interactions, sonar dome housing, cavitation noise evaluation and reduction, noise signature and mapping, etc.

The aim of the author is to present the technical and scientific activities on going at CNR-INSEAN'S Outdoor Maneuvering Basin in order to use it as very low underwater background noise test bed for a number of research activities as: - point-to-point and/or broadcast underwater data transmission

- underwater very low-noise lab for radiated noise measurements produced by surface small-sized full scale bodies, underwater full scale AUV's, ROV's and/or any other platform - qualified test bed for electronic noise quantification on underwater technologies (sensors, data transmission equipment, complete autonomous/tethered platforms, etc.).

### Biography

Salvatore Mauro is working as a Scientist Researcher at CNR-INSEAN since 1995 – Present(21 years) from the Manoeuvrability Dept. under Unmanned free running self-propelled model tests. previously his working experiences under 7th EU FP Project "HYMAR" since 2009 – 2011 (2 years) and HYPERLINK who have worked at this company" 6th FP EU during 2008 – 2010 (2 years).And 10years with Ricercatore , INSEAN for 2000 – 2010.

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