



## RINA/IMarEST Technical Presentation

## **Recent Studies of the Hydrodynamics of River Vessels**

**Speaker:** Lawrence Doctors

Professor Emeritus UNSW Sydney

**Date** Wednesday 13 February 2019

**Venue:** Harricks Auditorium

Engineers Australia

8 Thomas St Chatswood

**Refreshments:** 6:00 pm

**Presentation:** 6:30 pm

The author will present some of his recent work in progress on the question of resistance minimisation of river vessels and other marine craft. An early and very successful example is the fleet of RiverCats launched in 1991 and which still serve Sydney Harbour. Improvements to computer software allow very accurate prediction of the resistance, which comprises components due to wave generation, the presence of the transom stern, and the frictional resistance.

A second aspect of this work is the collection of towing-tank data for a large number of well-known series of ship models, as well as more recent ship-model series. These results have been extrapolated to the full-size prototype case, from which the author will discuss the significance of hull slenderness, wetted-surface coefficient, and the hardness of the chine.

**Note** The date of 13 February is the second Wednesday of the month, due to the Harricks Auditorium being unavailable on the first Wednesday. Subsequent technical presentations in 2019 will generally be held on the first Wednesday of the month in the Harricks Auditorium except for June, when the presentation will be held on Wednesday 29 May in a CBD venue.