WINNER

Mehmet Atlar

University of Strathclyde

Category: **Waterborne**

Country: **United Kingdom**

Mehmet Atlar is an expert in experimental and computational naval hydrodynamics, and he has carried out a wide range of projects funded by industry, the UK Ministry of Defence and EU (FP4, 5, 6, 7, H2020 and Horizon-Europe). He played a significant role in the development of podded propulsors and was the coordinator of The EU FP5-funded project FASTPOD (Fast ship applications for pod drives, 2002-05). He also led to the design and commissioning of the novel semi-displacement type Deep-V catamarans, including Port of London Authority's four harbour patrol vessels (*"Lambeth", "Kew", "Southwark", "Barnes"*) and Newcastle University's research vessel *"The Princess Royal"*

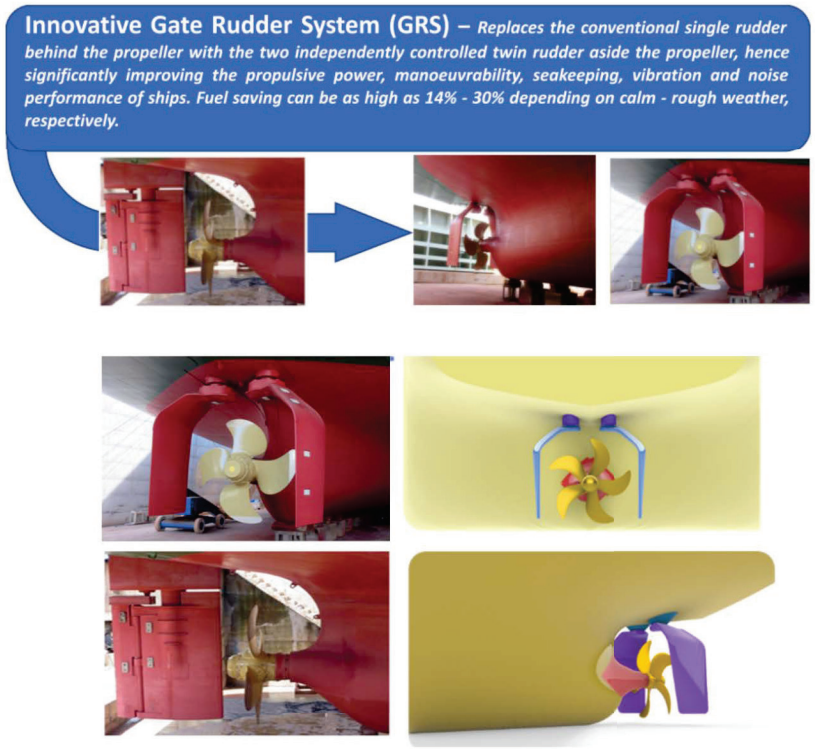
Prof Atlar is the project coordinator for the current H2020 project GATERS (GATE Rudder System as a Retrofit for the Next Generation Propulsion and Steering of Ships, 2021-24), which builds on earlier research work conducted as part of the Emerson Cavitation Tunnel research activities when he was the director of this facility and in collaboration with the major patent holder of the Gate Rudder concept, Dr Noriyuki Sasaki of Japan.

The GATERS project has already impacted and will significantly impact the shipping and maritime world at the national, EU and global levels. The Gate Rudder System (GRS) was proven as the most beneficial "sole" energy-saving and greenhouse gas-reducing propulsion and steering device for purpose-built new ships (14% fuel saving in calm weather and over 20% saving in rough weather). In addition, the GRS improves the manoeuvrability in harbours and hence the safety of ships, as well as reducing the underwater radiated noise (about 15dB). The new rudder system was demonstrated on four new-built Japanese ships. However, there has been no application of the gate rudder system as a "retrofit". The GATERS project aims to develop and demonstrate the first retrofit application of the Gate Rudder System to enable greener, safer and cost-effective propulsion for the existing global shipping fleet. Such a cost-effective retrofit solution will have a significant beneficial impact on the global shipping fleet.

Key research themes

Hydrodynamics, Ship powering, Energy saving

WINNER



Mehmet Atlar is the Professor of Naval Hydrodynamics at the Department of Naval Architecture, Ocean and Marine Engineering, University of Strathclyde. His main interests include experimental and computational hydrodynamics with a bias on ships and offshore systems-based design applications. He has won several awards for his research and publications and was a member of six consecutive ITTC committees.