Marine Autonomous Systems: What Lies Beneath

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ABSTRACT

In this keynote talk, we will discuss marine autonomous systems in general and why they are increasingly becoming important for maritime applications including pollutant tracking, ocean exploration including minerals and salvage hunting, seabed surveying and mines clearing to name but a few. In particular, four projects will be highlighted, including the Hammerhead autonomous underwater vehicle, Springer unmanned surface vehicle, the Roll Royce-led MAXCMAS and Artemis Technologies-led autonomous ferry which are related to guidance and control of such vehicles, as well as improving their autonomy by developing intelligent path planning and collision avoidance capabilities. Standard collision regulations or marine 'rules of the road' will be explored and the challenges discussed in codifying those rules, originally written for human consumption.

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