

# **Abstract**

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## **Numerical Simulation for Viscous Flow past a Designed AUV Model.**

The flow pattern around a designed autonomous underwater vehicle (AUV) model has been numerically predicted. The finite volume based code "Fluent" [1] was used for simulating the flow around the model at three speeds. The grid generator of the solver has been used for meshing the AUV hull and its computational domain with the structured hexahedral grid. Complete information about the numerical simulations process will be found in the different sections in this paper. The work represents the first stage in studying the performance flow field over an AUV model. The second stage is to experimentally assess the performance the associated flow field characteristics.