Abstract

The study of fish or moving objects in liquids is the subject of an interesting and challenging research in the field of biolocomotion. In this study, a Computational Fluid Dynamics (CFD) simulation of three-dimensional biomimetic shark's body is developed to see the fluid flow around the body of a fish shark. Analysis of flow visualization is presented in an effort to measure and see the effects that flow through the body surface. Starting from the stream that passes through the head, body, fins, tails and more details about the shape of the skin. In the flow through the body surface of fish sharks which incidentally has a roughness of 200μm can make a boundary layer that is greater than a form of smooth surfaces, so the faster the flow leaves the body surface of fish shark. In this unique form of skin has an important role in the breakdown of water flow through it. Ie when the collision occurred on the shape of the skin, as if the flow is deflected in accordance with the form.

Keywords: boundary layer, CFD, fish, reynold number, shark.
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