Department of Ocean and Resources Engineering

Seminar

BIOMIMETIC DESIGN OF UNDERWATER VEHICLES

by

Michael Triantafyllou
Professor of Mechanical and Ocean Engineering
Director, Center for Ocean Engineering
Massachusetts Institute of Technology

Wednesday, February 2, 2005, 3:30 PM, MSB 114

Abstract

Biomimetics is the scientific method of extracting principles and processes based on systematic study, observation and experimentation with live animals and organisms, in order to design and construct man-made systems capable of emulating the performance of live organisms.

Over the last fifteen years, several biomimetic robots have been built at MIT to operate underwater, including the RoboTuna, the RoboPike and the RoboTurtle.

In this talk an outline will be given of the methodology employed to study and emulate the outstanding agility of fish and marine mammals, and experimental results will be shown establishing the new capabilities offered by biomimetic autonomous underwater vehicles.