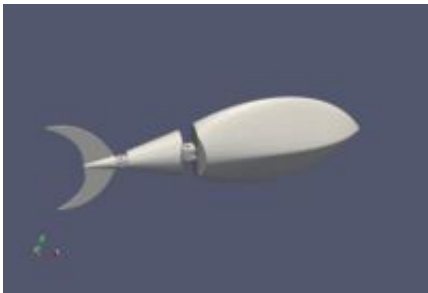


Innovative idea could help underwater exploration

October 3 2011



A PhD student's innovative design for a robotic fish that could aid underwater exploration has earned him the chance to showcase his idea to industry experts around the world.

Plymouth University Marine and Engineering researcher, Daniel Roper, has devised a new method to make robotic fish more efficient when performing tasks in the water.

His research involved looking at the tail movements of fish and applying the same concept to robots. In doing this he discovered an alternative method for generating a more efficient swimming [robot](#) which could be used for underwater surveys.

Daniel's desire for delving into marine movements comes from his

previous career as a Merchant Navy Seaman.

He said: “The prototypes are of significant interest especially in shallow water or cluttered environments where conventional torpedo unmanned vehicles don’t perform as well due to limited manoeuvrability or propeller snarling.”

Daniel gained welcome recognition for his work to date when he addressed the annual UK Marine Technology Postgraduate Conference on his research. Daniel beat off competition from other universities to receive the prize for best presentation, which has won him subscription to three further prestigious conferences in the marine world.

Daniel’s mentor at the University and Lecturer in Intelligent Autonomous Control Systems, Sanjay Sharma, said: “The annual event aims to highlight the work postgraduates and early career researchers are doing and provide a network for their future. To achieve this level will give Daniel the boost he needs to get his idea off the ground.”

Daniel is hoping his design prototype will become a reality in the next year so he can pitch it to industry experts.

Meantime, he is working on a paper which he will deliver at a conference in France on climbing and walking robots.

Provided by University of Plymouth

Citation: Innovative idea could help underwater exploration (2011, October 3) retrieved 20 April 2024 from <https://phys.org/news/2011-10-idea-underwater-exploration.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is

provided for information purposes only.