

New Technologies and Prospective Development Direction of the Unmanned Underwater Vehicle

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Recently, development on unmanned systems such as unmanned aerial vehicle(UAV), unmanned ground vehicle(UGV), and unmanned underwater vehicle(UUV) are very fast. Out of these, higher technology on the UAV and UGV has been achieved than the UUV. Now, a way to expedite the development speed of the UUV technology is required.

In this presentation, key technologies of the UUV are explained and the obstacles for achieving high technology of the UUV are described. Especially, the problems of the underwater communication, energy, and accurate positioning are clearly described. A prospective development direction to solve the problems for cutting edge of the UUV technology is suggested. In addition to these, on-going high technology research of advanced research institutes with KIAL lab in Korea Maritime University is presented.

Experience:

2012~2021	Korea Ocean Engineering and Technology	Editorial Board
2015~2022	Busan Robot Industrial Association	Executive Member
2015~2016	Korea Unmanned Underwater Vehicle Research Association	Chairman
2020~2026	Int. Journal of Engineering and Technology Innovation	Associate Editor
2014~2015	Int. J. of Ocean Engineering	Associate Editor
2020~2023	Korea Unmanned Vehicle Research Association	Executive Member
2021~2023	KMOU Unmanned Ocean Vehicle Research Center	Director