

1. Record Nr.	UNINA9910299835703321
Autore	Insaurralde Carlos C
Titolo	Intelligent Autonomy for Unmanned Marine Vehicles : Robotic Control Architecture Based on Service-Oriented Agents / / by Carlos C. Insaurralde
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-18778-3
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (240 p.)
Collana	Studies in Systems, Decision and Control, , 2198-4182 ; ; 29
Disciplina	006.3 620 629.8 629.892
Soggetti	Computational intelligence Robotics Automation Automatic control Computational Intelligence Robotics and Automation Control and Systems Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction.- Existing Robotic Control Architectures -- Intelligent Control Architecture.- Architecture Design -- Architecture Realization -- Architecture Evaluation.- Conclusions and Future Work.
Sommario/riassunto	This book presents an Intelligent Control Architecture (ICA) to enable multiple collaborating marine vehicles to autonomously carry out underwater intervention missions. The presented ICA is generic in nature but aimed at a case study where a marine surface craft and an underwater vehicle are required to work cooperatively. It is shown that they are capable of cooperating autonomously towards the execution of complex activities since they have different but complementary capabilities. The ICA implementation is verified in simulation, and

validated in trials by means of a team of autonomous marine robots. This book also presents architectural details and evaluation scenarios of the ICA, results of simulations and trials from different maritime operations, and future research directions.
