1. Record Nr. UNINA990002568970403321

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| Autore | Clavel, Gilles |
| Titolo | Introduzione alla programmazione / Gilles Clavel, Joelle Biondi |
| Pubbl/distr/stampa | Milano : Masson, 1985 |
| ISBN | 882140585 |
| Descrizione fisica | x, 259 p. ; 24 cm |
| Disciplina | 001 |
| Locazione | MAS |
| Collocazione | MXXI-A-43 |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |

2. Record Nr. UNINA9910416086603321

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| Autore | Chin Cheng Siong |
| Titolo | Benchmark Models of Control System Design for Remotely Operated Vehicles / / by Cheng Siong Chin, Michael Wai Shing Lau |
| Pubbl/distr/stampa | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2020 |
| ISBN | 981-15-6511-2 |
| Edizione | [1st ed. 2020.] |
| Descrizione fisica | 1 online resource (XII, 140 p. 141 illus., 61 illus. in color.) |
| Disciplina | 623.82 |
| Soggetti | Control engineering<br>Robotics<br>Automation<br>Oceanography<br>Control, Robotics, Automation<br>Ocean Sciences |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |

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| Nota di contenuto | Introduction -- Added Mass Computation for Control of An Open-Frame Remotely-Operated Vehicle: Application using WAMIT and MATLAB -- Modeling and Testing of Hydrodynamic Damping Model for a Complex-Shaped Remotely-Operated Vehicle for Control -- Robust and Decoupled Cascaded Control System of Underwater Robotic Vehicle for Stabilization and Pipeline Tracking -- Supervisory Cascaded Controllers Design: Experiment Test on a Remotely-Operated Vehicle -- Systematic Modeling and Model-based Simulation of a Remotely-Operated Vehicle using MATLAB and Simulink -- Experimental Validation of Open-Frame ROV model for Virtual Reality Simulation and Control -- Robust Genetic Algorithm and Fuzzy Inference Mechanism Embedded in Sliding-Mode Controller for Uncertain Underwater Robot. |
| Sommario/riassunto | This book is intended to meet the needs of those who seek to develop control systems for ROVs when there is no model available during the initial design stage. The modeling, simulation and application of marine vehicles like underwater robotic vehicles (URVs) are multidisciplinary, and combine mathematical aspects from various engineering disciplines. URVs such as remotely operated vehicle (ROVs) are used for a wide range of applications such as exploring the extreme depths of our ocean, where a hard-wired link is still required. Most ROVs operate in extreme environments with uncertainties in the model prior to control system design. However, the method involved extensive testing before the system model could be used for any control actions. It has been found that the range of error can be extensive and uncertain in actual, continuously varying conditions. Hence, it is important to address the problem of reliance on model testing using different modeling approaches. In this book, approaches such as WAMIT, ANSYS-CFX, STAR CCM+, MATLAB and Simulink are used to model parameters for ROVs. A few benchmark models are provided, allowing researchers and students to explore and test different control schemes. Given its scope, the book offers a valuable reference guide for postgraduate and undergraduate students engaged in modeling and simulation for ROV control. . |