

Diving & ROV **specialists**

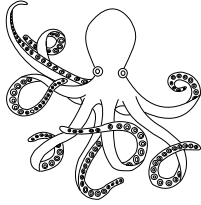


Index for document research

Studies of ROV and AUV concepts
stored in the website database

September 2024

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Diving & ROV Specialists

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Purpose

This document lists the papers on "*Studies of Remotely Operated Vehicles (ROV) and Autonomous Underwater Vehicles (AUV) concepts*" archived in the relevant section of the "Diving and ROV Specialists" website database.

Its purpose is to serve as a supplementary resource for research to the chronological list and search engine capabilities. For this reason, the various documents are categorized under the following sub-sections:

- Propulsion
- Manipulation and grabbing systems
- Sensing and visualization
- Navigation and localization
- Communication and controlling
- New general design studies

Categorizations will be refined over time. However, it is impractical to provide search engines and classifications that fully reflect researchers' preferences. Therefore, it is hoped that these three search methods will enable you to find the documents you seek.

Unlike the website's chronological index, this document does not include descriptions of the content of the various papers. However, the chronological classification number, authors' names, and publication dates are available, allowing you to locate them in the chronological lists where the descriptions and download links are provided.

This list was published on 1 September 2024. Please note that new documents added for this edition of the website are listed for each main section on the home page of the website.



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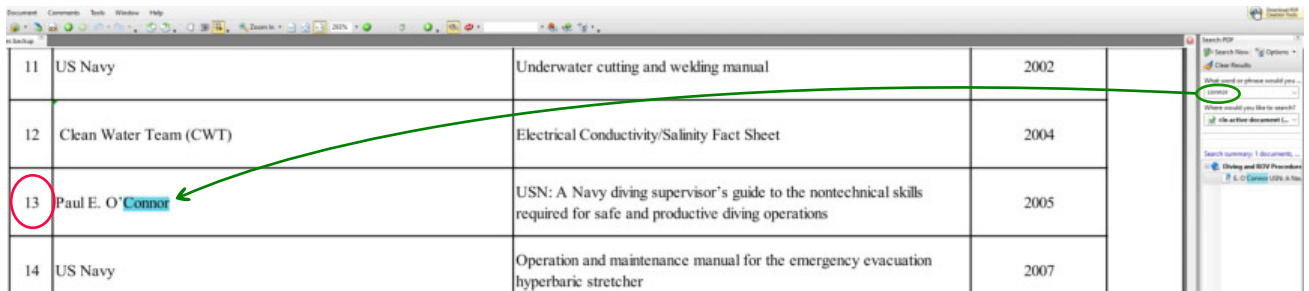
Important note:

This document is in PDF (Portable Document Format), so it can be downloaded and used independently of the website. It is also worth noting that some PDF readers come with a built-in search engine. This feature allows users to locate specific documents by entering relevant keywords, making document retrieval more efficient and convenient. It is, therefore, possible to find the desired document by browsing the list or by using the aforementioned search engine. Among the many free PDF readers available on the Internet, the four listed below include the aforementioned search engine:

- WPS Office (<https://www.wps.com/>) - works on Windows, Mac OS, and Linux
- PDF X Change Viewer (<https://pdf-xchange.eu/pdf-xchange-editor/index.htm>) - Works on Windows and Mac OS.
- Foxit Reader (<https://www.foxit.com/pdf-reader/>) - Works on Windows, Linux , and Mac OS
- Adobe Acrobat Reader (<https://get.adobe.com/reader/>) - Works on Windows and Mac Os.

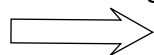
To locate a document within the chronological presentation of the database:

1. Follow the list and select the desired document, or use the search function of the PDF software by entering the keyword in the dedicated field. In this example, the author's name (Paul E. O'Connor) has been used.



11	US Navy	Underwater cutting and welding manual	2002
12	Clean Water Team (CWT)	Electrical Conductivity/Salinity Fact Sheet	2004
13	Paul E. O'Connor	USN: A Navy diving supervisor's guide to the nontechnical skills required for safe and productive diving operations	2005
14	US Navy	Operation and maintenance manual for the emergency evacuation hyperbaric stretcher	2007

2. Select the reference number (highlighted in red) and the year of publication (2005 in this example).
3. On the website, open the corresponding section and year of publication in the database (accessible via "Documents" in the navigation bar).



Diving & ROV procedures and standards

This section provides currently enforced diving standards and guidelines adopted by national bodies or published by professional organizations. It also includes procedures published by highly skilled independent authors that can serve as references. Links are provided to organizations that publish paid documents frequently used or imposed on contractors.

Note that we believe that every standard or norm imposed on contractors should be available free of charge.

Diving & ROV procedures

- Documents years 2019 to today

- Documents years 1980 to 2018

Historical

4. Scroll down to find the corresponding number, title, and author's name in the chronological list. Click on the picture or the description, and enjoy.

13 - USN: A Navy diving supervisor's guide to the nontechnical skills required for safe and productive diving operations

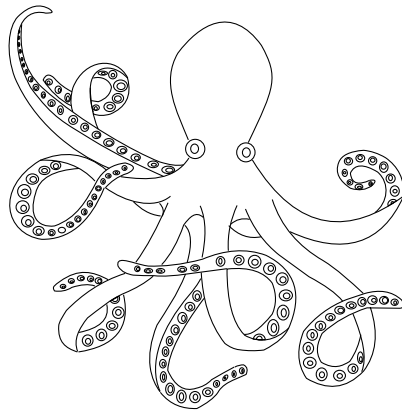


Author: Paul E O'Connor

The purposes of this guide are to provide information on the nontechnical skills required for safe and productive operations by U.S. Navy dive teams. Nontechnical skills are required for safe and effective performance in a technical context but are not directly related to technical expertise. The nontechnical skills addressed in this guide include situation awareness, decision making, team working/leadership, and mitigating the effects of stress and fatigue. Communication is not included as a separate topic since it underpins every one of these skills.

Reference USN: NEDU TR 05-09
Date: June 2005

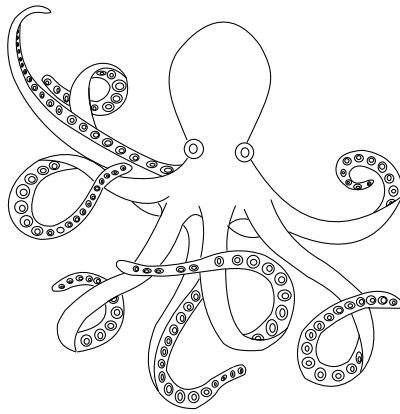
Propulsion



<i>Nb</i>	<i>Authors</i>	<i>Title</i>	<i>Year publication</i>
1950 to 2009			
1	Sir Geoffrey Taylor	Analysis of the swimming of long and narrow animals.	1952
2	Yao-tsu wu	Swimming of a waving plate	1960
3	R. W. Blake	The mechanics of labriform locomotion - An analysis of the recovery stroke and the overall fin beat cycle's propulsive efficiency in the angelfish	1979
10	Ben Allen, William S. Vorus, & Timothy Prestero	Propulsion System Performance Enhancements on REMUS AUVs	2000
20	Gry Karin HAUGEN, Finn CONRAD, & Mads GRAHL-MADSEN	Innovative new ROV technology utilizing water hydraulics	2005
2010 - 2014			
5	Yoong Hou Pin, Lin Boon Hoe, Kenneth Teo Tze Kin, & Ismail Saad	Swimming Motion Control for Biometric Fish Robot by Utilizing Turning Coefficient	2011
18	Wallace M. Bessa, Max S. Dutra, & Edwin Kreuzer	Dynamic Positioning of Underwater Robotic Vehicles with Thruster Dynamics Compensation	2013
27	Izaak D. Neveln, Rahul Bale, Amneet Pal Singh Bhalla, Oscar M. Curet, & 2 scientists	Undulating fins produce off-axis thrust and flow structures	2013
34	Frédéric Boyer, & Mathieu Porez	Multibody system dynamics for bio-inspired locomotion: from geometric structures to computational aspects	2014
36	Mathieu Porez, Frederic Boyer, & Auke Ijspeert	Improved Lighthill fish swimming model for bio-inspired robots - Modeling, computational aspects, and experimental comparisons.	2014
2015 - 2017			
14	F. Renda, F. Giorgio-Serchi, F. Boyer, C. Laschi	Modeling cephalopod-inspired pulsed-jet Locomotion for Underwater Soft Robots	2015
21	Sung-Jin Park, Mattia Gazzola, Kyung Soo Park, Shirley Park, & 15 scientists	Phototactic guidance of a tissue-engineered soft-robotic ray	2016-08
25	Ali Jebelli, M. C.E. Yagoub, & B. S. Dhillon	Design and Control of Underwater Robots with Rotating Thrusters	2016-12
29	Tiefeng Li, Guorui Li, Yiming Liang, Tingyu Cheng, & 8 scientists	Fast-moving, soft, electronic fish	2017
2018 - 2019			
11	Taavi Salumäe, Ahmed Chemori, & Maarja Kruusmaa	Motion Control of a Hovering Biomimetic Four-Fin Underwater Robot	2018
12	Ali Dogrul, Yavuz Hakan Ozdemir, Savas Sezen, & Baris Barlas	Uncertainty Assessment and Self-Propulsion Estimation of the Duisburg Test Case	2018
13	E. Kelasidi, I. A. M. Kohl, K. Y. Pettersen, B. H. Hoffmann, & J. T. Gravdahl	Experimental Investigation of Locomotion Efficiency and Path-Following for Underwater Snake Robots with and without a Caudal Fin	2018
17	Naga Sasi Devarakonda	Hydrodynamics of an Anguilliform Swimming Motion using Morison's Equation	2018-08
21	Jiawang Chen, Yongqiang Ge, Chaoling Yao, & Binghuan Zheng	Dynamic Modeling of a Wave Glider with Optimal Wing Structure	2018
27	Muhammad Ikhsan Sani, Simon Siregar, Muhammad Muchlis Kurnia, Dziki Hasbialloh	An electrical power control system for explorer-class remotely operated underwater vehicle (ROV)	2019

40	J. Zhu, C. White, D. K. Wainwright , V. Di Santo, & 2 scientists	Tuna Robotics: A high-frequency experimental platform exploring the performance space of swimming fishes	2019
43	Arobot	ROV Thruster Testing Document - Individual	2019
45	Caleb Christianson, Christopher Bayag, Guorui Li, Saurabh Jadhav + 4 scientists	Jellyfish-Inspired Soft Robot Driven by Fluid Electrode Dielectric Organic Robotic Actuators	2019
2020			
16	Guijie Liu, Shuikuan Liu, Yingchun Xie, Dingxin Leng, & Guanghao Li	The Analysis of Biomimetic Caudal Fin Propulsion Mechanism with CFD	2020-06
31	Talha Gülgün, Göksel Alankaya, Muhammet Emin Duran, Mertcan Erdoğan, & 3 other authors	Analysis of The Impact of Different Angles of Thrusters in Underwater Vehicles on Thrust Force in CAD Environment	2020-10
2021			
1	M. A. Malleswari, B. Venkata Rao, & K. Narasimha Rao	Solar powered ROV electric propulsion and control	2021
2	A Sabau	Thrust force evaluation for a ROV (Remont Operating Vehicle) propeller	2021
9	Ji-Hong Li, Mun-Jik Lee, Hyungjoo Kang, Min-Gyu Kim, & Gun Rae Cho	Design, Performance Evaluation and Field Test of a Water Jet Tool for ROV Trencher	2021
38	Mohamed Moustanir, Karim Benkirane, Adil Sayouti, & Hicham Medromi	Four propellers submarine drone modelling in a real environment	2021-12
45	Li Bian, Xiangqian Che, Liu Chengyang, Dai Jiageng, & Dai Jiageng	Parameter optimization of unmanned surface vessel propulsion motor based on BAS-PSO	2021
2022 - part A			
12	Gokhan Atali	Prototyping of a Novel Thruster for Underwater ROVs.	2022
19	Zhiwei Yu, Kai Li, Yu Ji, & Simon X. Yang	Designs, motion mechanism, motion coordination, and communication of bionic robot fishes: a survey.	2022
2022 - part B			
29	Le Yu, Han Sun, Shangwei Su, Huixuan Tang, & 2 scientists	Review of Crucial Problems of Underwater Wireless Power Transmission	2022-12
2023 - Now			
18	Qiyun Cheng, Wenyuan Mo, Long Chen, Wei Ke, Jun Hu, & Yuwei Wu	Numerical Study of Different Engineering Conditions on the Propulsive Performance of the Bionic Jellyfish Robot	2023-02
33	Xiaodong Liu, Yuli Hu, & Zhaoyong Mao	Numerical Simulation of the Hydrodynamic Performance and Self-Propulsion of a UUV near the Seabed	2023-07
40	Gongbo Li, Guijie Liu, Dingxin Leng, Xin Fang, & 2 scientists	Underwater Undulating Propulsion Biomimetic Robots: A Review	2023-07

Manipulation and grabbing systems

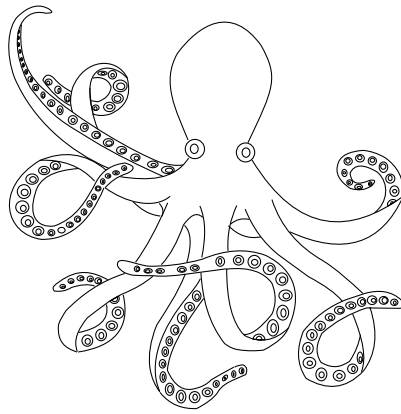


<i>Nb</i>	<i>Authors</i>	<i>Title</i>	<i>Year publication</i>
1950 to 2009			
4	Peter Bosse, Paul J. Heckman jr.	Development of an underwater manipulator for use on a Free-swimming unmanned submersible	1980-10
5	Timothy W. McLain, Stephen M. Rock	Experiments in the Coordination of Underwater Manipulator and Vehicle Control	1995
6	Timothy W. McLain, Stephen M. Rock, & Michael J. Lee	Experiments in the Coordinated Control of an Underwater Arm/Vehicle System	1996
9	D.I Mearns, & A.R.F. Hudson	Development of a controllable grab system for deep water recovery	1997
11	Zhenhua Wang, & Weicheng Cui	For safe and compliant interaction: an outlook of soft underwater manipulators	2000
12	Jee-Hwan Ryu, & ong-Soo Kwon	Control of Underwater Manipulators Mounted on an ROV Using Base Force Information	2001
2010 - 2014			
3	Marc Hildebrandt, Leif Christensen, Jochen Kerdels, Jan Albiez, & Frank Kirchner	Realtime Motion Compensation for ROV-based Tele-operated Underwater Manipulators	2010
11	Morten Haugen	Modeling and Control of ROV Manipulator	2012
17	Dylan K. Wainwright, Thomas Kleinteich, Stanislav N. Gorb, & Adam P. Summers	Stick tight: suction adhesion on irregular surfaces in the northern clingfish	2013
19	Francesca Tramacere, Lucia Beccai, Michael Kuba, Alessandro Gozzi, & 2 scientists	The Morphology and Adhesion Mechanisms of Octopus vulgaris Suckers	2013
28	Petra Ditsche, Dylan K. Wainwright, & Adam P. Summers	Attachment to challenging substrates – fouling, roughness, and limits of adhesion in the northern clingfish (<i>Gobiesox macandricus</i>)	2013
29	Francesca Tramacere, Alexander Kovalev, Thomas Kleinteich, Stanislav N. Gorb, & Barbara Mazzolai	Structure and mechanical properties of Octopus vulgaris suckers	2013
33	Francesca Tramacere, Esther Appel, Barbara Mazzolai, & Stanislav N. Gorb	Hairy suckers: the surface microstructure and its possible functional significance in the Octopus vulgaris sucker	2014
2015 - 2017			
2	Francesca Tramacere, Nicola M. Pugno, Michael J. Kuba, & Barbara Mazzolai	Unveiling the morphology of the acetabulum in octopus suckers and its role in attachment	2015
3	Houssam Albitar, Kinan Dandan, Anani Ananiev, & Ivan Kalaykov	Underwater Robotics: Surface Cleaning Technics, Adhesion and Locomotion Systems	2015
8	M Sfakiotakis, A Kazakidi, & D P Tsakiris	Octopus-inspired Multi-arm Robotic Swimming	2015
12	Michael Beckert, Brooke E. Flammang, & Jason H. Nadler	The suction pad attachment is enhanced by spinule friction	2015
15	Satja Sivčev, Joseph Coleman, David Adley, Gerard Dooly, & 2 scientists	Closing the gap between industrial robots and underwater manipulators.	2015
18	Kevin C. Galloway, Kaitlyn P. Becker, Brennan Phillips, Jordan Kirby, & 4 scientists	Soft Robotic Grippers for Biological Sampling on Deep Reefs	2016
23	Josie Hughes, Utku Culha, Fabio Giardina, Fabian Guenther, Andre Rosendo, and Fumiya Iida	Soft Manipulators and Grippers: A Review	2016-11
32	Yaoyao Wang, Surong Jiang, Fei Yan, Linyi Gu, & Bai Chen	A new redundancy resolution for underwater vehicle–manipulator system considering payload	2017

38	Yueping Wang, Xingbang Yang, Yufeng Chen, Dylan K. Wainwright, & 8 scientists	A biorobotic adhesive disc for underwater hitchhiking inspired by the remora suckerfish	2017
2018 - 2019			
1	Thomas George Thuruthel, Yasmin Ansari, Egidio Falotico, & Cecilia Laschi	Control Strategies for Soft Robotic Manipulators: A Survey	2018-01
3	Kun Xie, Wei Pan, Suxia Xu	An Underwater Image Enhancement Algorithm for Environment Recognition and Robot Navigation	2018-03
10	Satja Sivčev, Matija Rossi, Joseph Coleman, Gerard Dooly, & 2 scientists	Fully automatic visual servoing control for work-class marine intervention ROVs	2018
16	Satja Sivčev, Joseph Coleman, Edin Omerdić, Gerard Dooly, & Daniel Toal	Underwater manipulators: A review	2018
23	Thomas George Thuruthel, Egidio Falotico, Federico Renda, & Cecilia Laschi	Model-Based Reinforcement Learning for Closed-Loop Dynamic Control of Soft Robotic Manipulators	2018-11
28	Zheyuan Gong, Bohan Chen, Jiaqi Liu, Xi Fang, & 3 scientists	An Opposite-Bending-and-Extension Soft Robotic Manipulator for Delicate Grasping in Shallow Water	2019
29	Yue Wang, Victor Kang, Eduard Arzt, Walter Federle, and René Hense	Strong Wet and Dry Adhesion through Cupped Microstructures	2019
30	Aude Billard, Danica Kragic	Trends and challenges in robot manipulation	2019
31	Petra Ditsche, & Adam Summers	Learning from Northern clingfish (<i>Gobiesox macandricus</i>): bioinspired suction cups attach to rough surfaces	2019
34	Nina R. Sinatra, Clark B. Teeple, Daniel M. Vogt, Kevin, Kit Parker, & 2 scientists	Ultra-gentle manipulation of delicate structures using a soft robotic gripper	2019
2020			
2	Francesca Negrello, Hannah S. Stuart, & Manuel G. Catalano	Hands in the Real World	2020-01
15	Yue Wang, Victor Kang, Walter Federle, Eduard Arzt, & René Hensel	Switchable Underwater Adhesion by Deformable Cupped Microstructures	2020-10
19	Zheyuan Gong, Xi Fang, Xingyu Chen, Jiahui Cheng, & 8 scientists	A soft manipulator for efficient and delicate grasping in shallow water: Modeling, Control, and real-world experiments	2020-03
28	Wenjun Xu, Jianfeng Wei, Renyou Yang, & Aidong Zhang	Eye Gaze Map as an Efficient State Encoder for Underwater Task Automation	2020-08
30	Songlin Nie, Xiaopeng Liu, Hui Ji, Zonghai Ma, & Fanglong Yin	Simulation and Experimental Study on Deformation Characteristics of the Water Hydraulic Flexible Actuator Used for the Underwater Gripper	2020-10
2021			
7	Junli Wang, Shitong Wang, & Wenhao Leng	Vision Positioning-Based Estimation Method and Its Simulation Studies on State of Underwater Manipulator	2021
16	Zhong Shen, Yafei Zhao, Hua Zhong, Kailuan Tang, & 4 scientists	Soft Origami Optical Sensing Actuator for Underwater Manipulation	2021
18	Shadab Zaidi, Martina Maselli, Cecilia Laschi, & Matteo Cianchetti	Actuation Technologies for Soft Robot Grippers and Manipulators: A Review	2021-05
19	Minsu Kang, Kahyun Sun, Minho Seong, Insol Hwang, & 6 scientists	Applications of Bio-inspired Reversible Dry and Wet Adhesives: A Review	2021-05
23	Kamil Cetin, Carlos Suarez Zapico, Harun Tugal, Yvan Petillot, & 2 other scientists	Application of Adaptive and Switching Control for Contact Maintenance of a Robotic Vehicle-Manipulator System for Underwater Asset Inspection	2021-07
25	Yue Wang, René Hensel	Bioinspired Underwater Adhesion to Rough Substrates through Cavity Collapse of Cupped Microstructures	2021-05

27	Alexander Konoplin, Vladimir Filaretov, & Alexander Yurmanov	A Method for Supervisory Control of Manipulator of Underwater Vehicle	2021-06
52	Haiyang Jiang, Xudong Han, Yonglin Jing, Ning Guo, & 2 scientists	Rigid-Soft Interactive Design of a Lobster-Inspired Finger Surface for Enhanced Grasping Underwater	2021
2022 - part A			
4	Sara Aldhaheri, Giulia De Masi, Eric Pairet, & Paola Ardon	Underwater Robot Manipulation: Advances, Challenges and Prospective Ventures	2022-01
5	Angela Mazzeo, Jacopo Aguzzi, Marcello Calisti, Simonepietro Canese, & 3 scientists	Marine Robotics for Deep-Sea Specimen Collection: A Systematic Review of Underwater Grippers	2022-01
15	Mingxin Wu, Xingwen Zheng, Ruosi Liu, Ningzhe Hou, & 5 scientists	Glowing Sucker Octopus (<i>Stauroteuthis syrtensis</i>)-Inspired Soft Robotic Gripper for Underwater Self-Adaptive Grasping and Sensing	2022
24	Zhong Shen, Hua Zhong, Erchao Xu, Runzhi Zhang, & 6 scientists	An Underwater Robotic Manipulator with Soft Bladders and Compact Depth-Independent Actuation	2022
2022 - part B			
2	Sean T. Frey, A. B. M. Tahidul Haque, Ravi Tutika, Elizabeth V. Krotz, & 4 scientists	Octopus-inspired adhesive skins for intelligent and rapidly switchable underwater adhesion	2022-07
19	David Herrero-Pérez, & Humberto Martínez-Barberá	Soft Gripper Design and Fabrication for Underwater Grasping	2022-10
2023 - Now			
2	Artur Babiarz, Robert Bieda, Tomasz Borowik, Tomasz Grzejszczak, Tomasz Hartwig, Krzysztof Jaskot, Andrzej Kozyra, & Piotr Sciegienka	Underwater manipulator that imitates the movements of the human arm	2023-01
13	Shinsuke Kawagucci, Yohei Matsui, Hidetaka Nomaki, & Chong Chen	Deep-sea freezer	2023-04
15	Xinhui Zheng, Qiyan Tian, Qifeng Zhang	Development and Control of an Innovative Underwater Vehicle Manipulator System	2023-03
39	Yeming Zhang, Demin Kong, Yan Shi, Maolin Cai, Qihui Yu, & 3 scientists	Recent progress on underwater soft robots: adhesion, grabbing, actuating, and sensing	2023-08
42	Tianlei Wang, Fei Ding, & Zhenxing Sun	Visual-Aided Shared Control of Semi-Autonomous Underwater Vehicle for Efficient Underwater Grasping	2023-08

Sensing and visualization



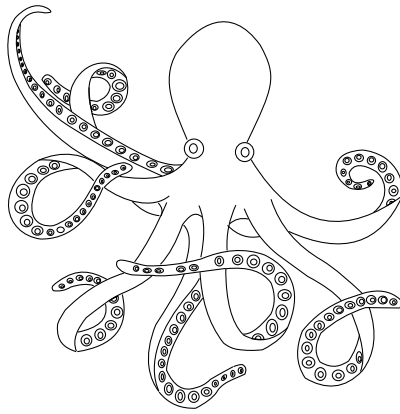
<i>Nb</i>	<i>Authors</i>	<i>Title</i>	<i>Year publication</i>
1950 to 2009			
7	Primo Zingaretti, & Silvia Maria Zanoli	Robust real-time detection of an underwater pipeline	1997
8	A. Alessandri, M. Caccia, & G. Veruggio	Fault detection of actuator faults in unmanned underwater vehicles	1997
16	Shahriar Negahdaripour, Pezhman Firoozfam	An ROV Stereovision System for Ship Hull Inspection	2005
19	Chua Kia, & Mohd Rizal Arshad	Robotics Vision-based Heuristic Reasoning for Underwater Target Tracking and Navigation	2005
21	M. Caccia	Vision-based ROV horizontal motion control: Near-seafloor experimental results	2006
2010 - 2014			
7	Mathieu Porez, Vincent Lebastard, Auke Jan Ijspeert, & Frederic Boyer	Multi-physics model of an electric fish-like robot: numerical aspects and application to obstacle avoidance	2011
24	Jillian Chalke, Paul O'Brien, Christopher Conley, Victor Puksta, & Mustapha S. Fofana	Dangerous Inspection & Versatile Exploration Robot (DIVER): Tracking, Monitoring and Assisting Human Divers in Commercial, environmental and Military Applications	2013
2015 - 2017			
1	Mohd Shahrieel Mohd Aras, Fadilah Abdul Azis, Syed Mohamad, & 3 other scientists	Simulating underwater depth environment condition using lighting system design	2015
21	Sung-Jin Park, Mattia Gazzola, Kyung Soo Park, Shirley Park, & 15 scientists	Phototactic guidance of a tissue-engineered soft-robotic ray	2016-08
22	Josep Bosch, Pere Ridaó, Rafael Garcia, & Nuno Gracias	Towards omnidirectional immersion for ROV teleoperation.	2016-02
24	Guijie Liu, Anyi Wang, Xinbao Wang, & Peng Liu	A Review of Artificial Lateral Line in Sensor Fabrication and Bionic Applications for Robot Fish	2016-12
30	Yonggang Jiang, Zhiqiang Ma, Jianchao Fu, Deyuan Zhang	Development of a Flexible Artificial Lateral Line Canal System for Hydrodynamic Pressure Detection	2017
34	Shuming Wang, Pin Chieh Wu, Vin-Cent Su, Yi-Chieh Lai, & 7 scientists	Broadband achromatic optical metasurface devices	2017
35	Thomas George Thuruthel, Egidio Falotico, Federico Renda, & Cecilia Laschi	Learning Dynamics and Trajectory optimization for Octopus Inspired Soft Robotic Manipulators	2016-11
39	Christian Katlein, Martin Schiller, Hans J. Belter, & Veronica Coppolaro	A New Remotely Operated Sensor Platform for Interdisciplinary Observations under Sea Ice	2017
41	Mohd Shahrieel Mohd Aras, Muhammad Nizam Kamarudin, Iktisyam Zainal Mohd Khairi Mohd Zambri, & Marizan Sulaiman	Analysis of integrated sensor for unmanned underwater vehicle application	2017
42	MD Moniruzzaman, Syed Mohammed Shamsul Islam, Mohammed Bennamoun, Paul Lavery	Deep Learning on Underwater Marine Object Detection: A Survey	2017-11
2018 - 2019			
4	Satja Siveev, Matija Rossi, Joseph Coleman, Edin Omerdi, & Gerard Dooly, & Daniel Toal	Collision Detection for Underwater ROV Manipulator Systems	2018
22	Thomas George Thuruthel	Machine Learning Approaches for Control of Soft Robots	2018-11
24	Claudio Abels, Antonio Quattieri, Toni Lober, Alessandro Mariotti, & 4 scientists	Bidirectional biomimetic flow sensing with antiparallel and curved artificial hair sensors	2019

32	Eleni Kelasidi, Signe Moe, Kristin Y. Pettersen, Anna m. Kohl & 2 scientists	Path Following, Obstacle Detection and Obstacle Avoidance for Thrusted Underwater Snake Robots	2019
36	Ved Chirayath, Alan Li	Next-Generation Optical Sensing Technologies for Exploring Ocean Worlds-NASA FluidCam, MiDAR, and NeMO-Net	2019
41	Muhammad Syukron, Nuralif Mardiyah, Wahono Ahmad Rosikhin, & Zamah Sari	The Application of ROV (Remotely Operated Vehicle) of the Microcontroller Submarine as a Tool to Take Sample of Water and Soil Contaminated by Waste	2019
47	MD Moniruzzaman, Syed Mohammed Shamsul Islam, Paul Lavery, & Mohammed Bennamoun	Faster R-CNN Based Deep Learning for Seagrass Detection from Underwater Digital Images	2019-12
2020			
1	Dipta Gome, & Dip Nandi	Robust Underwater Object Detection with Autonomous Underwater Vehicle: A Comprehensive Study	2020-01
3	Yonggang Jiang, Peng Zhao, Zhiqiang Ma, Dawei Shen, & 2 scientists	Enhanced flow sensing with interfacial microstructures	2020-02
5	Jian Cao, Yushan Sun, Guocheng Zhang, Wenlong Jiao, & 2 Scientists	Target tracking control of underactuated autonomous underwater vehicle based on adaptive nonsingular terminal sliding mode control	2020-04
8	Dewei Li, Ye Li, Zhongjun Ding, Xiangxin Wang, & Baohua Liu	Development and application of a temperature gradient detector for manned underwater robot	2020-08
14	Di Wu, Fei Yuan, & En Cheng	Underwater No-Reference Image Quality Assessment for Display Module of ROV	2020-08
21	Robin Rofalski, Patrick Westfield, Jean-Guy Nistad, Annette Buttner & Thomas Luhmann	Fusing ROV-based photogrammetric underwater imagery with multibeam soundings for reconstructing wrecks in turbid waters	2020-03
34	Michael Stein, & Henri Parviainen	Remote Vessel Inspections with an ROV using Livestreaming	2020-08
37	Christopher Whitt, Jay Pearlman, Brian Polagye, Frank Caimi, & 21 Scientists	Future Vision for Autonomous Ocean Observations	2020-09
41	Bowen Teng, & Hongjian Zhao	Underwater target recognition methods based on the framework of deep learning: A survey	2020-09
2021			
8	Zhengliang Hu, Jinxing Huang, Pan Xu, Mingxing Nan, & 2 scientists	Underwater Acoustic Source Localization via Kernel Extreme Learning Machine	2021
15	Yufan Zhai, Xingwen Zheng, & Guangming Xie	Fish Lateral Line-Inspired Flow Sensors and Flow-Aided Control: A Review	2021
22	Dipta Gomes, & A.F.M. Saifuddin Saif	Robust Underwater Fish Detection Using an Enhanced Convolutional Neural Network	2021-06
28	Chenyu Zhao, Philipp R Thies, & Lars Johanning	Offshore inspection mission modelling for an ASV/ROV system	2021
29	Christoph Tholen, Iain Parnum, Robin Rofalski, Lars Nolle, & Oliver Zielinski	Investigation of the Spatio-Temporal Behaviour of Submarine Groundwater Discharge Using a Low-Cost Multi-Sensor-Platform	2021-07
30	Junjun Chen, Zhengzhong Gao, Chen Huang, & Lixing Yang	Underwater image enhancement algorithm based on Retinex and wavelet fusion	2021-08
31	Alexander Miller, Boris Miller, & Gregory Miller	Navigation of Underwater Drones and Integration of Acoustic Sensing with Onboard Inertial Navigation System.	2021-08
43	Donatas Bagočius, & Aleksas Naršėius	Development of the autonomous underwater noise recorder	2021
44	Vinicio Rosas-Cervantes, Quoc-Dong Hoang, Sooho Woo, & Soon-Geul Lee	Mobile robot 3D trajectory estimation on a multilevel surface with multimodal fusion of 2D camera features and a 3D light detection and ranging point cloud	2021

50	Stanisław Hożyń, & Bogdan Żak	Stereo Vision System for Vision-Based Control of Inspection-Class ROVs	2021
51	Christos C. Constantinou, George P. Georgiades, & Savvas G. Loizou	A Laser Vision System for Relative 3-D Posture Estimation of an Underwater Vehicle with Hemispherical Optics	2021
2022 - part A			
2	Vishnu Kandimalla, Matt Richard, Frank Smith, Jean Quirion, Luis Torgo, and Chris Whidden	Automated Detection, Classification and Counting of Fish in Fish Passages With Deep Learning	2022-01
3	Andre Jesus, Claudio Zito, Claudio Tortorici, Eloy Roura, & Giulia De Masi	Underwater Object Classification and Detection: first results and open challenges.	2022-01
7	Mingyue Cheng, Quansheng Guan, Fei Ji, Julian Cheng, & Yankun Chen	Dynamic Detection Based Trajectory Planning for Autonomous Underwater Vehicle to Collect Data From Underwater Sensors	2022-01
8	Josep Bosch, Pere Ridaó, Rafael Garcia, & Nuno Gracias	Towards omnidirectional immersion for ROV teleoperation.	2022-02
9	Kai Hu, Chenghang Weng, Yanwen Zhang, Junlan Jin, and Qingfeng Xia	An Overview of Underwater Vision Enhancement: From Traditional Methods to Recent Deep Learning	2022-02
14	Waseem Akram, Alessandro Casavola, Nadir Kapetanovi, & Nikola Miškovic	A Visual Servoing Scheme for Autonomous Aquaculture Net Pens Inspection Using ROV	2022-05
26	Rafsan Al Shafatul Islam Subad, Md Mahmud Hasan Saikot, Kihan Park	Soft Multi-Directional Force Sensor for Underwater Robotic Application	2022-05
32	Adnan Elahi Khan Khalil, Shahzad Anwar, Ghassan Husnain, Atif Elahi, & Zhang Dong	A Novel Bio-Inspired Path Planning for Autonomous Underwater Vehicle for Search and Tracing of Underwater Target	2022-02
2022 - part B			
11	Chin-Chun Chang, Naomi A. Ubina, Shyi-Chyi Cheng, Hsun-Yu Lan, Kuan-Chu Chen, and Chin-Chao Huang	A Two-Mode Underwater Smart Sensor Object for Precision Aquaculture Based on AIoT Technology	2022-10
22	Zhenjing Zhu, Ning Hu, Junyi Wu, Wenxin Li, & 5 scientists	A review of underwater acoustic metamaterials for underwater acoustic equipment.	2022-12
2023 - Now			
6	Zhiyong Duan, Yurui Zhang, Jiaqi Hu, Bohao He, & Canjun Yang	Research on non-contact wet mateable connector for optical communication and power transmission	2023-02
11	Vanesa Lopez-Vazquez, Jose Manuel Lopez-Guede, Damianos Chatzievangelou, Jacopo Aguzzi	Deep learning based deep-sea automatic image enhancement and animal species classification	2023-03
12	Astrid Marie Skålvik, Camilla Saetre, Kjell-Eivind Frøysa, Ranveig N. Bjørk, & Anders Tengberg	Challenges, limitations, and measurement strategies to ensure data quality in deep-sea sensors	2023-04
16	Kaveripakam Sathish, Ravikumar Chinthaginjala Venkata, Rajesh Anbazhagan, Giovanni Pau	Review of Localization and Clustering in USV and AUV for Underwater Wireless Sensor Networks	2023-01
24	Alberto Monterroso Muñoz, María-Jose Moron-Fernández, Daniel Cascado-Caballero, Fernando Diaz-del-Rio, and Pedro Real	Autonomous Underwater Vehicles: Identifying Critical Issues and Future Perspectives in Image Acquisition	2023-03
25	Gaoferi Xu, Daoxian Zhou, Libiao Yuan, Wei Guo, & 2 scientists	Vision-based underwater target real-time detection for autonomous underwater vehicle subsea exploration	2023-05
34	Mengzhuo Liu, Jifeng Zhu, Xiaohe Pan, Guolin Wang, & 3 scientists	A Distributed Intelligent Buoy System for Tracking Underwater Vehicle	2023-08
35	Mahfuzul Huda, Kumar Rohit, Bikramjit Sarkar, & Souvik Pal	An Image Enhancement Algorithm for Autonomous Underwater Vehicles: A Novel Approach	2023-08
42	Tianlei Wang, Fei Ding, & Zhenxing Sun	Visual-Aided Shared Control of Semi-Autonomous Underwater Vehicle for Efficient Underwater Grasping	2023-08
43	Zhaorui Gu, Xiuhan Liu, Zhiqiang Hu, Guoyu Wang, & 3 scientists	Underwater computational imaging: a survey	2023-09

45	Hongbo Li, Aijun Liu, Qiang Yang, Changjun Yu, & Xuguang Yang	Biologically inspired virtual aperture extension method for small aperture HFSWR multielement array	2023-10
54	Wenwei Zhang, Kun Zhu, Zhichun Yang, Yunling Ye, Junfeng Ding, and Jin Gan	Development of an Underwater Detection Robot for the Structures with Pile Foundation	2024-06
56	Shuangquan Li, Zhichen Zhang, Qixian Zhang, Haiyang Yao, Xudong Li, Jianjun Mi, & Haiyan Wang	Breakthrough Underwater Physical Environment Limitations on Optical Information Representations: An Overview and Suggestions	2024-06

Navigation and localization

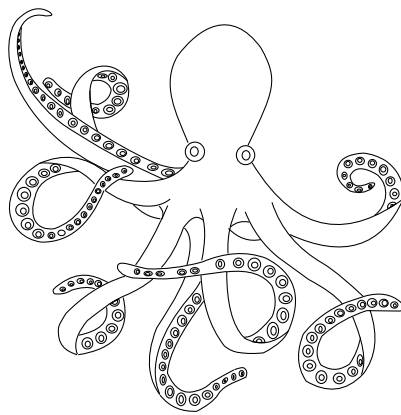


<i>Nb</i>	<i>Authors</i>	<i>Title</i>	<i>Year publication</i>
1950 to 2009			
13	G. Conte, M. Zanolì, D. Scaradozzi	An automatic guidance system for a small work class ROV	2002
19	Chua Kia, & Mohd Rizal Arshad	Robotics Vision-based Heuristic Reasoning for Underwater Target Tracking and Navigation	2005
29	Kristi A. Morgansen, Benjamin I. Triplett, & Daniel J. Klein	Geometric Methods for Modeling and Control of Free-Swimming Fin-Actuated Underwater Vehicles	2008
2010 - 2014			
2	Bo Zhao, Mogens Blanke, & Roger Skjetne	Particle Filter ROV Navigation using Hydroacoustic Position and Speed Log Measurements	2010
4	Daniel Toal, Edin Omerdic, & Gerard Dooly	Precision Navigation Sensors Facilitate Full Auto Pilot Control of Smart ROV for Ocean Energy Applications	2010
7	Mathieu Porez, Vincent Lebastard, Auke Jan Ijspeert, & Frederic Boyer	Multi-physics model of an electric fish-like robot: numerical aspects and application to obstacle avoidance	2011
15	Harris O. Hinnant	Autonomous underwater navigation	2013
2015 - 2017			
5	Margarida Pedro, David Moreno-Salinas, N. Crasta, Antonio Pascoal	Underwater Single-Beacon Localization: Optimal Trajectory Planning and Minimum-Energy Estimation	2015-04
17	Supun A. T. Randeni, Alexander L. Forrest, Remo Cossu, & Zhi Quan Leong	Autonomous Underwater Vehicle Motion Response: A Nonacoustic Tool for Blue Water Navigation	2016
21	Sung-Jin Park, Mattia Gazzola, Kyung Soo Park, Shirley Park, & 15 scientists	Phototactic guidance of a tissue-engineered soft-robotic ray	2016-08
22	Josep Bosch, Pere Ridao, Rafael Garcia, & Nuno Gracias	Towards omnidirectional immersion for ROV teleoperation.	2016-02
24	Gujie Liu, Anyi Wang, Xinbao Wang, & Peng Liu	A Review of Artificial Lateral Line in Sensor Fabrication and Bionic Applications for Robot Fish	2016-12
27	D. Moreno-Salinas, N. Crasta, M. Ribeiro, B. Bayat, A. M. Pascoal, J. Aranda	Integrated Motion Planning, Control, and Estimation for Range-Based Marine Vehicle Positioning and Target Localization	2016-12
35	Thomas George Thuruthel, Egidio Falotico, Federico Renda, & Cecilia Laschi	Learning Dynamics and Trajectory optimization for Octopus Inspired Soft Robotic Manipulators	2016-11
40	Yang Luo, Jianguo Tao, Hao Sun, Zhuang Hao, & 5 scientists	A novel localization approach for underwater welding vehicles in spent fuel pools via attitude heading reference system and altimeters	2017
43	Supun Anuradhitha Tilakeratne Randeni Pathiranachchilage	Improving the localization accuracy of AUVs operating in highly variable environmental conditions	2017
2018 - 2019			
6	Hongde Qin, Zheyuan Wu, Yanchao Sun, & Yushan Sun	Prescribed performance adaptive fault-tolerant trajectory tracking control for an ocean bottom flying node	2018
9	Robert K. Katzschmann, Joseph DelPreto, Robert MacCurdy, & Daniela Rus	Exploration of underwater life with an acoustically-controlled soft robotic fish	2018
25	Arturo Gomez Chavez, Christian A Mueller, Tobias Doernbach, & Andreas Birk	Underwater navigation using visual markers in the context of intervention missions	2019
46	Petar Trslic, Matija Rossi, Luke Robinson, Cathal W. O'Donnel, & 6 other scientists	Vision based autonomous docking for work class ROVs	2019

2020			
5	Jian Cao, Yushan Sun, Guocheng Zhang, Wenlong Jiao, & 2 Scientists	Target tracking control of underactuated autonomous underwater vehicle based on adaptive nonsingular terminal sliding mode control	2020-04
38	Simon Watson, Daniel A. Duecker, & Keir Groves	Localisation of Unmanned Underwater Vehicles (UUVs) in Complex and Confined Environments: A Review	2020-10
42	Chinonso Okereke, Nur Haliza Abdul Wahab, & Mohd Murtadha Mohamad	A Review of Machine Learning Path Planning Algorithms for Autonomous Underwater Vehicles (AUV) in Internet of Underwater Things (IoUT)	2020-09
2021			
3	Magnus Bjerkeng, Trine Kirkhus, Walter Caharija, Jens T. Thielemann, & 3 other scientists	ROV Navigation in a Fish Cage with Laser-Camera Triangulation	2021
5	Brian R. Page, Reeve Lambert, Jalil Chavez-Galaviz, Nina Mahmoudian	Underwater Docking Approach and Homing to Enable Persistent Operation	2021
14	Auguste Bourgois	Safe & collaborative autonomous underwater docking	2021
31	Alexander Miller, Boris Miller, & Gregory Miller	Navigation of Underwater Drones and Integration of Acoustic Sensing with Onboard Inertial Navigation System.	2021-08
36	Weilei Mu, Yuxue Wang, Hailiang Sun, & Guijie Liu	Double-Loop Sliding Mode Controller with an Ocean Current Observer for the Trajectory Tracking of ROV	2021-08
37	Hui Ma, Xiaokai Mu, & Bo He	Adaptive Navigation Algorithm with Deep Learning for Autonomous Underwater Vehicle	2021-09
42	Ruochen An, Shuxiang Guo, Yuanhua Yu, Chunying Li, & Tendeng Awa	Multiple Bio-Inspired Father-Son Underwater Robot for Underwater Target Object Acquisition and Identification	2021
47	Chengqi Long, Xiaohui Qin, Yougang Bian, & Manjiang Hu	Trajectory tracking control of ROVs considering external disturbances and measurement noises using ESKF-based MPC	2021
2022 - part A			
16	Bolun Huang, & Qi Yang	Disturbance Observer-Based Double-Loop Sliding-Mode Control for Trajectory Tracking of Work-Class ROVs	2022-04
18	Naifeng Wen, Lingling Zhao, Ru-Bo Zhang, Shuai Wang & 3 scientists	Online paths planning method for unmanned surface vehicles based on rapidly exploring random tree and a cooperative potential field	2022
23	Jiachen Yang, Meng Xi, Jiabao Wen, Yang Li, Houbing, & Herbert Song	A digital twins enabled underwater intelligent internet vehicle path planning system via reinforcement learning and edge computing.	2022-05
31	Ri Lin, Yucheng Zhao, Dejun Li, Mingwei Lin, and Canjun Yang	Underwater Electromagnetic Guidance Based on the Magnetic Dipole Model Applied in AUV Terminal Docking.	2022-07
32	Adnan Elahi Khan Khalil, Shahzad Anwar, Ghassan Husnain, Atif Elahi, & Zhang Dong	A Novel Bio-Inspired Path Planning for Autonomous Underwater Vehicle for Search and Tracing of Underwater Target	2022-02
2022 - part B			
3	Leif Christensen, José de Gea Fernández, Marc Hildebrandt, Christian Ernst, Siegfried Koch, & Bilal Wehbe	Recent Advances in AI for Navigation and Control of Underwater Robots	2022-08
9	Tingjun Lei, Guoming Li, Chaomin Luo, Li Zhang, & 2 scientists	An informative planning-based multi-layer robot navigation system as applied in a poultry barn.	2022-10
10	Ruiheng Liao, Wei Su, Xiurong Wu, En Cheng	Reinforcement Learning Based Mobile Underwater Localization for Silent UUV in Underwater Acoustic Sensor Networks.	2022-10
12	Antoni Burguera, & Francisco Bonin-Font	Advances in Autonomous Underwater Robotics Based on Machine Learning	2022-10
13	Dianyu Yang, Chensheng Cheng, Can Wang, Guang Pan, & Feihu Zhang	Side-Scan Sonar Image Segmentation Based on Multi-Channel CNN for AUV Navigation	2022-07

15	Chao-Lin Kuo, Yu-Chi Pu, & Qi-An Chen	Position Tracking of an Underwater Robot Based on Floating-Downing PI Control	2022-11
18	EeShan C. Bhatt, Bradley Howard, & Henrik Schmidt	An Embedded Tactical Decision Aid Framework for Environmentally Adaptive Autonomous Underwater Vehicle Communication and Navigation	2022-06
28	Xiaofei Du, Chaoyong Zong, Bo Zhang, & Maolin Shi	Design, Simulation, and Experimental Study on the Hydraulic Drive System of an AUV Docking Device with Multi-Degree Freedom	2022-11
2023 - Now			
1	Christophe Viel, Juliette Drupt, Claire Dune, & Vincent Hugel	ROV localization based on umbilical angle measurement	2023-01
10	Chinonso E. Okereke, Mohd Murtadha Mohamad, Nur Haliza Abdul Wahab, Olakunle Elijah, Abdulaziz Al-Nahari, and S.Zaleha	An Overview of Machine Learning Techniques in Local Path Planning for Autonomous Underwater Vehicles	2023-02
19	Thierry Soriano, Hoang Anh Pham, & Valentin Gies	Experimental Investigation of Relative Localization Estimation in a Coordinated Formation Control of Low-Cost Underwater Drones.	2023-03
21	Krzysztof Naus	Accuracy Assessment of the Positioning of a Swarm of Underwater Vehicles in Relation to Four Surface Vehicles Using the TDOA Method	2023-04
23	Shuangshuang Fan, Xinyu Zhang, Guangxian Zeng, & Xiao Cheng	Underwater ice adaptive mapping and reconstruction using autonomous underwater vehicles	2023-03
26	Dan Zou, & Fei Zhao	Convert path planning for underwater vehicle based on sonar detection probability	2023-05
27	Ping Hu, Dawen Jiao, Jiahui Qi, Sidi Chen	Influence and remedial measures of missing test data on magnetic field source location of underwater vehicle	2023-05
28	Pengyun Chen, Ying Liu, Xiaolong Chen, Teng Ma, Lei Zhang	Underwater terrain positioning method based on Markov random field for unmanned underwater vehicles	2023-05
38	Yong Zhang, Feihu Zhang, Zhiliang Wang, & Xiaofang Zhang	Localization Uncertainty Estimation for Autonomous Underwater Vehicle Navigation	2023-08
48	Rafał Kot	Multimodal Global Trajectory Planner for Autonomous Underwater Vehicles	2023-11
52	Fomekong Fomekong Rachel Merveille, Baozhu Jia, and Zhizun Xu	advancements in Underwater Navigation: Integrating Deep Learning and Sensor Technologies for Unmanned Underwater Vehicles	2024-04

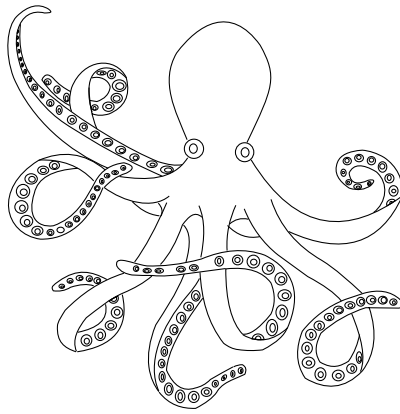
Communication and controlling



<i>Nb</i>	<i>Authors</i>	<i>Title</i>	<i>Year publication</i>
1950 to 2009			
22	Mario Alberto Jordan, & Jorge Luis Bustamante	Numerical stability analysis and control of umbilical-ROV systems in one-degree-of-freedom taut-slack condition	2006
25	Marin Stipanov, Nikola Miskovic, Zoran Vukic, & Matko Barisic	ROV automatization - Yaw identification and automarine module architecture	2007
28	Daniel J. Klein, Patrick K. Bettale, Benjamin I. Triplett, & Kristi A. Morgansen	Autonomous Underwater Multivehicle Control with Limited Communication. Theory and Experiment	2008
35	Kyle N. Winfree, Jamie E. Gewirtz, Thomas Mather, Jonathan Fiene, & Katherine J. Kuchenbecker	A high fidelity ungrounded torque feedback device: The iTorQU 2.0 A h	2009
2010 - 2014			
20	Daniel J. Brooksrov, Michael Lunderville, & Holly A. Yanco	Design of a 2D Joystick for Robot Control Based on a 6 DOF Haptic Device	2013
23	Mohd Shahrriel Mohd Aras, Anuar Mohamed, Kassim Alias Khamis, Shahrum Shah Abdullah & Muhammad Azhar , & Abd Aziz	Tuning Factor the Single Input Fuzzy Logic Controller to Improve the Performances of Depth Control for Underwater Remotely Operated Vehicle	2013
2015 - 2017			
28	Syed Mohamad Shazali	Development of Handheld Haptics Device for Driving System of Unmanned Underwater Vehicles	2017
37	Alin Ghilezan, & Mihaela Hnatiuc	The ROV communication and control	2017
2018 - 2019			
7	Charles Ramey, Matthew Meister, Anthony Spears, Josh Lutz, & 6 other scientists	Modular Controls and Instrumentation Software for Icefin ROV	2018
26	A Yu Konoplin, N Yu Konoplin, & V F Filaretov	Development of Intellectual Support System for ROV Operators	2019
2020			
9	Syed Mohamad Shazali Bin Syed Abdul Hamid, Muhamad Addeen Bin Zailec	Rendering ROV Rolling Motion on a Handheld Haptic Device	2020-06
12	Kyle L. Walker, Adam A. Stokes, Aristides Kiprakis, & Francesco Giorgio-Serchi	Investigating PID Control for Station Keeping ROVs	2020-05
18	Gyunam Kim, & Katsuhiro Hirata	Motion Control of a Two-Degree-of-Freedom Linear Resonant Actuator without a Mechanical Spring	2020-03
22	Syed Mohamad Shazali Bin Syed Abdul Hamid, & Muhamad Addeen Bin Zailec	Rendering ROV Rolling Motion on a Handheld Haptic Device	2020-06
35	Marcos de la Cruz, Gustavo Casañ, & Pedro Sanz	Preliminary Work on a Virtual Reality Interface for the Guidance of Underwater Robots.	2020-07
2021			
48	Sadiq Ur Rehman, Hala Mustafa, & Huzaifa Bin Saleem	Prototyping and Stabilizing of Under-Actuated Remotely Operated Vehicle (ROV) using Fuzzy PID Control Algorithm	2021
2022 - part A			
8	Josep Bosch, Pere Ridao, Rafael Garcia, & Nuno Gracias	Towards omnidirectional immersion for ROV teleoperation.	2022-02
13	Christophe Viel	Self-management of the umbilical of a ROV for underwater exploration	2022
20	Shijun Shen, Chaofan Wang, Zhiqiang Qiu, Zhiwu Ke, and Dawei Gong	Multi-Energy Acquisition Modeling and Control Strategy of Underwater Vehicles	2022

30	Xiong Wu, Du Jiang, Juntong Yun, Xin Liu, & 8 other scientists	Attitude Stabilization Control of Autonomous Underwater Vehicle Based on Decoupling Algorithm and PSO-ADRC	2022-02
2022 - part B			
23	Yongji Zhang, Yu Jiang, Hong Qi, Minghao Zhao, & 3 scientists	An Underwater Human–Robot Interaction Using a Visual–Textual Model for Autonomous Underwater Vehicles	2022-12
24	Miao Zhang, Haibao Hu, Peng Du, Xiaopeng Chen, & 4 Scientists	Detection of an internal solitary wave by the underwater vehicle based on machine learning	2022-11
26	Yağın Ata, Hanaa Abumarshoud, Lina Bariah, Sami Muhaidat, & Muhammad Ali Imran	Intelligent Reflecting Surfaces for Underwater Visible Light Communications	2022-02
27	Ali F.Kaeib, Omar .A. Alshawish, Suhayl Ali Altayf, & Mohammed A. Gamoudi	Designing and Analysis of Underwater Optical Wireless communication system.	2022-12
2023 - Now			
8	Ya Xie, Afei Zhu, Zhonghua Huang	Research on the Control Performance of Depth-Fixed Motion of Underwater Vehicle Based on Fuzzy-PID	2023-02
37	Fushen Ren, Qing Hu	ROV Sliding Mode Controller Design and Simulation	2023-07
47	Edosa Osa, & Daniel Chinemelem Samuels	Design of a Control System for an Autonomous Underwater Vehicle EDYSYS1	2023-10
53	Changho Yun	Underwater Multi-Channel MAC with Cognitive Acoustics for Distributed Underwater Acoustic Networks	2024-05
55	Angelo Mari C. Paredes, & Edwin R. Arboleda	Antennas for Underwater Wireless Sensor Networks (UWSNs): Reviewing the challenges of underwater communication	2024-06

New general design studies



<i>Nb</i>	<i>Authors</i>	<i>Title</i>	<i>Year publication</i>
1950 to 2009			
14	Pepijn van de Ven, Colin Flanagan, & Daniel Toal	A survey of AI techniques for control of underwater vehicles	2003-04
15	Pierre Marty	ALIVE: An Autonomous Light Intervention Vehicle	2004
17	A.Alvarez, A. Caffaz, A. Caiti, G. Casalino, E. Clerici, & 4 scientists	Folaga: A very low-cost autonomous underwater vehicle for coastal oceanography	2005
18	E.A. De Barros, A. Pascoal, E. de Sa	Progress towards a method for predicting AUV derivatives	2005
23	Gwyn Griffith, & Art Trembanis	Towards a risk management process for autonomous underwater vehicles	2007
24	Tadahiro Hyakudome	Design of Autonomous Underwater Vehicle	2007
26	Wisama Khalil, Guillaume Gallot, & Frederic Boyer	Dynamic Modeling and Simulation of a 3D Serial Eel-Like Robot	2007
27	Zoran Fabeković, Zdravko Eškinja, & Zoran Vukić	Micro ROV simulator	2007
30	Raul A. Valencia, Juan A. Ramirez, Luis B. Gutierrez, & Manuel J. Garcia	Modeling and simulation of an underwater remotely operated vehicle (ROV) for surveillance and inspection of port facilities using CFD tools.	2008
31	Steve Cohan	Trends in ROV Development	2008
32	E.A. De Barros, & A. Pascoal, E. de Sa	Investigation of a method for predicting AUV derivatives.	2008
33	Gerardo Gabriel Acosta, Hugo Curti, Oscar Calvo Ibáñez, & Silvano Rossi	Some Issues on the Design of a Low-Cost Autonomous Underwater Vehicle with an Intelligent Dynamic Mission Planner for Pipeline and Cable Tracking	2008
34	Shigeo Hirose, & Hiroya Yamada	Snake-like Robots - Machine Design of Biologically Inspired Robots	2009
2010 - 2014			
1	Pedro J. Sanz, Pere Ridao, Gabriel Oliver, Claudio Melchiorri, & 4 scientists	TRIDENT: A Framework for Autonomous Underwater Intervention Missions with Dexterous Manipulation Capabilities	2010
6	Alireza Marzbanrad, Jalil Sharafi, Mohammad Eghtesad, & Reza Kamali	design-construction & control of a remotely operated vehicle (ROV)	2011
8	D. Obreja, L. Domnisoru	Theoretical and experimental investigation on the total resistance of an underwater ROV remotely operating vehicle.	2011
9	Franco Andaloro, Maria Ferraro, Edoardo Mostarda, Teresa Romeo & Pierpaolo Consoli	Assessing the suitability of a remotely operated vehicle (ROV) to study the fish community associated with offshore gas platforms in the Ionian Sea: a comparative analysis with underwater visual censuses (UVCs)	2012
10	Pedro J. Sanz, Pere Ridao, Gabriel Oliver, Giuseppe Casalino, & 4 scientists	TRIDENT: Recent Improvements about Autonomous Underwater intervention Missions	2012
12	D. Obreja, & L. Domnisoru	Theoretical and experimental investigation on the total resistance of an underwater ROV remotely operating vehicle	2012
13	O. Sulaiman, & A.H. Saharuddin	Power integrity requirement of new generation of ROV for deep sea operation	2012
14	Pedro J. Sanz, Pere Ridao, Gabriel Oliver, Giuseppe Casalino, & 4 scientists	TRIDENT - An European Project Targeted to Increase the Autonomy Levels for Underwater Intervention Missions	2013

21	Curran Associates	Grand Challenges in Modeling and Simulation Symposium - Proceedings: Summer Simulation Multiconference 2013	2013
22	Saeed Akram Malik, Pan Guang, & Liu Yanan	Numerical Simulations for the Prediction of Wave Forces on Underwater Vehicle using 3D Panel Method Code	2013
25	Afolayan Matthew Olatunde	Stability of the Control Scheme of the Design of a Robotic Fish	2013
26	Andrea Arienti, Marcello Calisti, Francesco Giorgio-Serchi, & Cecilia Laschi	PoseiDRONE: Design of a soft-bodied ROV with crawling, swimming and manipulation ability	2013
30	Andrew D. Marchese, Cagdas D. Onal, & Daniela Rus	Autonomous Soft Robotic Fish Capable of Escape Maneuvers Using Fluidic Elastomer Actuators	2014
31	Wisama Khalil, & François Rongère	Dynamic Modeling of Floating Systems: Application to Eel-like Robot and Rowing system	2014
32	Mathieu Porez, Frederic Boyer, Ayman Belkhiri	A hybrid dynamic model for bio-inspired soft robots - Application to a flapping-wing micro air vehicle	2014
35	Pere Ridao, Marc Carreras, David Ribas, Pedro J. Sanz, & Gabriel Oliver	Intervention AUVs: The Next Challenge	2014
2015 - 2017			
4	Auke Jan Ijspeert, Alessandro Crespi, Dimitri Ryczko, & Jean-Marie Cabelguen	From Swimming to Walking with a Salamander Robot Driven by a Spinal Cord Model	2015
6	Mehdi Zare Ernani, Mohammad Bozorg, & Saeed Ebrahimi	Identification of an Autonomous Underwater Vehicle Dynamic Using Extended Kalman Filter with ARMA Noise Model	2015
7	S.A.T. Randeni, Z.Q. Leong, A. D. Ranmuthugala, A.L. Forrest, & J. Duffy	Numerical investigation of the hydrodynamic interaction between two underwater bodies in relative motion	2015
9	DNV	DNV-GL: Part 5 Types of UWT systems Chapter 7 Remotely operated vehicles	2015
10	Wei Peng Lin, Cheng Siong Chin, Leonard Chin Wai Looi, Jun Jie Lim, & Elvin Min Ee Teh	Robust Design of Docking Hoop for Recovery of Autonomous Underwater Vehicle with Experimental Results	2015
11	Francesco Giorgio-Serchi, Federico Renda, & Cecilia Laschi	Cephalopod-inspired soft robots: design criteria and modelling frameworks	2015
16	John B. Potts	Developing and Testing an Anguilliform Robot Swimming with Theoretical High Hydrodynamic Efficiency.	2015
19	Anil Antony Sequeira, Afeef Usman, Oommen Philip Tharakan, & Mir Zeshan Ali	Biologically Inspired Robots in a New Dimension - A Review	2016
20	E. Zereik, M. Bibuli, A. Pascoal, P. Ridao, and N. Miskovic	IFAC World Congress 2017 Invited Open Track Proposal: Marine and Maritime Robotics: Innovation and Challenges	2016
26	Ramos García, Néstor Sarlak Chivavee, Hamid Andersen, Søren Juhl Sørensen, Jens Nørkær	Simulation of the flow past a Circular Cylinder Using an Unsteady Panel Method	2016-12
31	Angelo Odetti, Giorgio Bruzzone, Massimo Caccia, Edoardo Spirandelli, & Gabriele Bruzzone	P2-ROV a Portable/Polar ROV	2017
33	Asimina Kazakidi, Dimitris P. Tsakiris, & John A. Ekaterinaris	Impact of arm morphology on the hydrodynamic behavior of a two-armed robotic marine vehicle	2017
36	Jun Shintake, Vito Cacucciolo, Herbert Shea, & Dario Floreano	Soft Biomimetic Fish Robot Made of Dielectric Elastomer Actuators	2017
44	J. Sverdrup-Thygeson, E. Kelasidi, K. Y. Pettersen, & J. T. Gravdahl	The Underwater Swimming Manipulator - A Bio-Inspired Solution for Subsea Operations	2017
2018 - 2019			

2	Thomas Thuesen Enevoldsen, Emil Mar Einarsson, Simon Pedersen, & Zhenyu Yang	Simplified Modelling and Identification of an Inspection ROV	2018-06
5	Simon Pedersen, Thomas Thuesen Enevoldsen, & Emil Mar Einarsson	Model comparison of a VideoRay Pro 4 Underwater ROV	2018
8	Muhammad Ikhsan Sani, Simon Siregar, Aris Pujud Kurniawan, & M. Abid Irwan	Wireless Controlled Remotely-operated Underwater Vehicle (ROV) for Shallow Water Exploration	2018
14	Eleni Kelasidi, Gard Elgenes, Henrik Kilvaer	Fluid parameter identification for an underwater snake robot.	2018
15	Roberta Ingresso, Daniela De Palma, Giovanni Indiveri, & Giulio Avanzini	Preliminary results of a dynamic modeling approach for underwater multi-hull vehicles	2018
18	Daniel M. Vogt, Kaitlyn P. Becker, Brennan T. Phillips, Moritz A. Graule, & 5 scientists	Shipboard design and fabrication of customized 3D-printed soft robotic manipulators for the investigation of delicate deep-sea organisms	2018
20	Chengshi Wang, John Wagner, Chase G. Frazelle, Ian D. Walker	Continuum Robot Control Based on Virtual Discrete-Jointed Robot Models	2018-10
21	Jiawang Chen, Yongqiang Ge, Chaoling Yao, & Binghuan Zheng	Dynamic Modeling of a Wave Glider with Optimal Wing Structure	2018
27	Muhammad Ikhsan Sani, Simon Siregar, Muhammad Muchlis Kurnia, Dzikri Hasbialloh	An electrical power control system for explorer-class remotely operated underwater vehicle (ROV)	2019
33	Ali Dogrul,	Hydrodynamic Investigation of a Submarine Moving Under Free Surface	2019
35	Hao Pan, Fei Li, Yao Liu, Qinghua Zhang, Meng Wang, & 8 scientists	Ultrahigh – energy density lead-free dielectric films via polymorphic nanodomain design	2019
37	Darryn Sward, Jacquomo Monk, & Neville Barret	A Systematic Review of Remotely Operated Vehicle Surveys for Visually Assessing Fish Assemblages	2019
38	Dhimas Satria, Romi Wiryadinata, DPAL Esiswitoyo, Muhamad Haykal Fasya, & 3 other engineers	Front surface geometry modeling of remotely operated vehicle (ROV) body observation class	2019
39	Charalampos P. Bechlioulis, Fotis Giagkas, Georges C. Karras, & Kostas j. Kyriakopoulos	Robust Formation Control for Multiple Underwater Vehicles	2019
42	Oscar Adrian Aguirre-Castro, Everardo Inzunza-González, Enrique Efrén García-Guerrero, Esteban Tlelo-Cuautle, & 3 other authors	Design and Construction of an ROV for Underwater Exploration	2019
44	Dianne L. McLean, Miles J. G. Parsons, Andrew R. Gates, Mark C. Benfield, & 13 scientists	Enhancing the Scientific Value of Industry Remotely Operated Vehicles (ROVs) in Our Oceans	2019
45	Caleb Christianson, Christopher Bayag, Guorui Li, Saurabh Jadhav + 4 scientists	Jellyfish-Inspired Soft Robot Driven by Fluid Electrode Dielectric Organic Robotic Actuators	2019
2020			
4	Edin Omerdic, Petar Trsljic, Admir Kaknjo, Anthony Weir, + 3 engineers	Geometric Insight into the Control Allocation Problem for Open-Frame ROVs and Visualisation of Solution	2020-01
6	Fabian Plum, Susanna Labisch, & Jan-Henning Dirks	SAUV—A Bio-Inspired Soft-Robotic Autonomous Underwater Vehicle	2020-02
7	Matteo Franchi, Francesco Fanelli, Mattei Bianchi, Alessandro Ridolfi, & Benedetto Allotta	Underwater Robotics Competitions: The European Robotics League Emergency Robots Experience With FeelHippo AUV	2020-01
10	Dianne L. McLean, Miles J. G. Parsons, Andrew R. Gates, Mark C. Benfield, & 12 other scientists	Enhancing the Scientific Value of Industry Remotely Operated Vehicles (ROVs) in Our Oceans	2020-04
11	Zhenzhong Chu, Bo Sun, Daqi Zhu, Mingjun Zhang, & Chaomin Luo	Motion control of unmanned underwater vehicles via deep imitation reinforcement learning algorithm	2020-05
13	Chengshi Wang, Chase G. Frazelle, John R. Wagner, & Ian D. Walker	Dynamic Control of Multi-Section Three-Dimensional Continuum manipulators Based on Virtual Discrete-Jointed Robot Models	2020-06

17	Roman Gabl, Thomas Davey, Yu Cao, Qian Li , & 8 scientists	Experimental Force Data of a Restrained ROV under Waves and Current	2020-06
20	Zach J. Patterson, Andrew P. Sabelhaus, Keene Chin, Tess Hellebrekers, and Carmel Majidi.	An Untethered Brittle Star-Inspired Soft Robot for closed-Loop Underwater Locomotion	2020-10
23	Iis Hamsir Ayub Wahab, Rintania Elliyati Nuryaningsih, Achmad Pradjudin Sardju	Proposed Mathematical Modeling of Small Remotely Operated Vehicle (ROV) Movement	2020-07
24	Lu Zongxing, Li Wanxin, Zhang Liping	Research development of soft manipulator: A review	2020-07
25	Elena Buscher, Darcy L. Mathews, Cheryl Bryce, Kathleen Bryce, & 2 scientists	Applying a Low Cost, Mini Remotely Operated Vehicle (ROV) to Assess an Ecological Baseline of an Indigenous Seascape in Canada	2020-08
26	Thomas George Thuruthe, Federico Renda, & Fumiya Iida	First-Order Dynamic Modeling and Control of Soft Robots	2020-07
27	Rodney Rountree	A better ROV/AUV for behavioral ecology	2020-07
29	Okunlola Babatunde Abraham, Okogbue Emmanuel Chilekwu, Olabanji Olayinka Mohammed, Ewetumo Theophilus, Adeboye Ademola Olumide Christopher	Design, Construction and Control of a Wireless Mobile Underwater and Surface Vehicle for Hydro-Meteorological Parameters Monitoring	2020-10
33	Han-Sol Jin, Hyunjoon Cho, Ji-Hyeong Lee, Huang Jiafeng, & 3 scientists	Study on Unmanned Hybrid Unmanned Surface Vehicle and Unmanned Underwater Vehicle System	2020-11
39	Cierra Braga, Kelli Hunsucker, Caglar Erdogan, Harrison Gardner, & Geoffrey Swain	The Use of a UVC Lamp Incorporated With an ROV to Prevent Biofouling: A Proof-of-Concept Study	2020-09
40	S Manullang, A Pusaka, & A Setiawan	The preliminary of Design and Movement of Remotely Operated Vehicle (ROV)	2020-09
43	Reynaldo Morillo, Justin Furness, Cameron Morris, & James Breslin	Improved Deployable Defense against BGP Hijacking	2020-12
2021			
4	A Yu Tolstonogov, A E Kozhushko, I A Chemezov, D A Skalskii, & A Yu Kolomeitsev	The Concept of the Unmanned Surface Vehicle for the Observation-class ROV	2021
6	Kyle L. Walker, Roman Gabl, Simona Aracri, Yu Cao, & 4 other scientists	Experimental Validation of Wave Induced Disturbances for Predictive Station Keeping of a Remotely Operated Vehicle	2021
10	Chenyu Zhao, Philipp Thies, Johanning Lars, & James Cowles	ROV launch and recovery from an unmanned autonomous surface vessel – Hydrodynamic modelling and system integration	2021
11	Kun Seng Vu	Unity Underwater ROV Simulator	2021
12	Javier Neira, Cristhel Sequeiros, Richard Huamani, Elfer Machaca, & 2 other authors	Review on Unmanned Underwater Robotics, Structure Designs, Materials, Sensors, Actuators, and Navigation Control	2021
20	O.W. Zulkarnain, A.A. M. Redhwan, N. Bahiyah Baba, M.N. Fadhil, & S. Rosni	Design and Development of SelamDrone Underwater ROV Manoeuvring Control	2021-05
21	Zhengrui Huang, & Shujie Wang	Multi-Link and AUV-Assisted Energy-Efficient Underwater Emergency Communications.	2021-05
24	Goffredo Giordano, Marco Carloti, & Barbara Mazzolai	A Perspective on Cephalopod Mimicry and Bioinspired Technologies toward Proprioceptive Autonomous Soft Robots	2021-08
26	Gong Shao-feng, Zhang Jian-bin, Cheng Dong, Xiao Hai-Yan, & 2 scientists	The conception and exploration of the underwater vehicle simulator	2021-07
33	Chenyu Zhao, Philipp R. Thies, & Lars Johanning	Investigating the winch performance in an ASV/ROV autonomous inspection system	2021-10
34	Faryar Shamshiri Amirkolai, & Reza Hasanzadeh Ghasemi	Investigation of a New Hovering Autonomous Underwater Vehicle for Underwater Missions	2021

35	Jonatan Scharff Willners, Ignacio Carlucho, Tomasz Luczynski, Sean Katagiri, & 9 scientists	From market-ready ROVs to low-cost AUVs	2021
39	Qinlin Tan, Yishan Chen, Jianhui Liu, Kehan Zou, & 3 scientists	Underwater Crawling Robot With Hydraulic Soft Actuators	2021-08
40	Aviv Elor, Tiffany Thang, Benjamin P. Hughes, Alison Crosby, & 5 Scientists	Catching jellies in immersive virtual reality: A comparative teleoperation study of ROVs in underwater capture tasks	2021-12
41	Zachari Smolder, & Jingang Yi	Cost-effective Remote Operated Vehicle	2021-10
46	Peter Danielis, Helge Parzyjegl, Mostafa Assem Mohamed Ali, & Frank Sill Torres	Simulation model for energy consumption and acoustic underwater communication of autonomous underwater vehicles	2021
49	Samson Nitonye, Sidum Adumene, Charles Ugochukwu Orji, & Anietie Effiong Udo	Operational failure assessment of Remotely Operated Vehicle (ROV) in harsh offshore environments	2021
53	Chinonso Okereke, Nur Haliza Abdul Wahab, Mohd Murtadha Mohamad S H Zaleha	Autonomous Underwater Vehicle in Internet of Underwater Things: A Survey	2021
2022 - part A			
1	Jielun Fang, Yanfeng Zhuang, Kailang Liu, Zhuo Chen, & 4 scientists	A Shift from Efficiency to Adaptability: Recent Progress in Biomimetic Interactive Soft Robotics in Wet Environments	2022-01
6	Samuel M. Youssef, Menna Allah, Mahmood A. Saleh, Mostafa A. Mousa, & 2 scientists	Underwater Soft Robotics: A Review of Bioinspired Design, Actuation, Modeling, and Control	2022-01
10	Lin Zhao, Mingxi Zhou, Brice Loose, Virginia Cousens, & Raymond Turrisi	Modifying an Affordable ROV for Under-ice Sensing	2022
17	Teresa Ramos, Antonio Córdoba, Amalia Luque, & Ana de las Heras	Total Design in the Design and Development Process of a Remotely Operated Vehicle (ROV) with Particular Consideration of Sensorization.	2022-04
21	Zuhayr Rymansaib, Benjamin Thomas, Alfred Anthony Treloar, Benjamin Metcalfe, Peter Wilson, & Alan Hunter	A Prototype Autonomous Robot for Underwater Crime Scene Investigation and Emergency Response	2022
22	Lei Li, Siqi Wang, Yiyuan Zhang, Shanyuan Song, & 12 scientists	Aerial-aquatic robots are capable of crossing the air-water boundary and hitchhiking on surfaces	2022-05
25	Bo Huang, Zhongyan Liu, Yujing Xu, Qiaochu Ding, & 3 scientists	Numerical Simulation of Wake Flow Field in Pitch Motion of Underwater Vehicle	2022
27	Sander C. Van den Berg, Rob B.N. Scharff, Zoltán Rusák, & Jun Wu	OpenFish: Biomimetic design of a soft robotic fish for high-speed locomotion	2022-05
28	Boai Sun, Weikun Li, Zhangyuan Wang, Yunpeng Zhu, & 7 scientists	Recent Progress in Modeling and Control of Bio-inspired Fish Robots	2022-06
33	Pedro Daniel de Cerqueira Gava, Cairo Lúcio Nascimento Júnior, Juan R. B. F. Silva, & Geraldo José Adabo	Simu2VITA: A general purpose underwater vehicle simulator	2022-04
2022 - part B			
4	Bing Sun, Wen Pang, Mingzhi Chen, & Daqi Zhu	Development and experimental verification of search and rescue ROV	2022-10
5	Ioannis Polymenis, Maryam Haroutunian, Rose Norman, & David Trodden	Virtual Underwater Datasets for Autonomous Inspections	2022-09
6	Alexander Konoplin, Nikita Konoplin, & Alexander Yurmanov	Development and Field Testing of a Smart Support System for ROV Operators	2022-10
7	Alexander Konoplin, Nikita Konoplin, & Alexander Yurmanov	Development and Field Testing of a Smart Support System for ROV Operators	2022-10
8	D. Ross Robertson, Luke Tornabene, Claudia C. Lardizabal, & Carole C. Baldwin	Submersibles Greatly Enhance Research on the Diversity of Deep-Reef Fishes in the Greater Caribbean	2022-01

14	Xiaonan Huang, Zach J. Patterson, Andrew P. Sabelhaus, Weicheng Huang, & 4 scientists	Design and Closed-Loop Motion Planning of an Untethered Swimming Soft Robot Using 2D Discrete Elastic Rods Simulations	2022-09
16	Qianrong Li, & Baoji Zhang	Hydrodynamic Performance of Open-frame Deep Sea Remotely Operated Vehicles Based on Computational Fluid Dynamics Method	2022-01
17	Malte von Benzon, Jesper Liniger, Fredrik Fogh Sørensen, & Simon Pedersen	Investigation of Operating Range of Marine Growth Removing ROV under Off shore Disturbances	2022-01
20	Bing Sun, Wen Pang, Mingzhi Chen, Daqi Zhu	Development and experimental verification of search and rescue ROV	2022-10
21	Samuel M. Youssef, MennaAllah Soliman, Mahmood A. Saleh, Mostafa A. Mousa, Mahmoud Elsamanty, & Ahmed G. Radwan	Underwater Soft Robotics: A Review of Bioinspiration in Design, Actuation, Modeling, and Control	2022-01
25	Chang Shi, Xide Cheng, Zuyuan Liu, Kunyu Han, & 2 scientists	Numerical Simulation of the Maneuvering Motion Wake of an Underwater Vehicle in Stratified Fluid	2022-10
30	Tao Yan, Zhe Xu, Simon X. Yang, & S. Andrew Gadsden	Formation control of multiple autonomous underwater vehicles: a review	2022-12
31	Hao Cao, & Lihua Wen	High-Precision Numerical Research on Flow and Structure Noise of Underwater Vehicle	2022-12
2023 - Now			
4	Jiafeng Huang, Hyeung-Sik Choi, Dong-Wook Jung, Ki-Beom Choo, & 6 scientists	Analysis of a New Twin Hybrid Autonomous Underwater Vehicle	2023-01
5	Simon Sirega, Bambang Riyanto Trilaksono, Egi Muhammad Idris Hidayat, Muljowidodo Kartidjo, & 3 scientists	Design and Construction of Hybrid Autonomous Underwater Glider for Underwater Research.	2023-01
7	Yuhang Tang, Xueren Wang, Xuhong Miao, Shengyao Gao, & 2 scientists	Optimum design of acoustic stealth shape of underwater vehicle model with conning tower	2023-02
14	Shohei Hotta, Yusuke Mitsui, Mizuki Suka, Norimitsu Sakagami, and Sadao Kawamura	Lightweight underwater robot developed for archaeological surveys and excavations.	2023-01
17	Celine Tran, Ivan Gushkov, Kristoffer Nordvik, Simen T. Røang, & 6 scientists	Operability analysis of control system for ROV launch-and-recovery from autonomous surface vessel	2023-06
22	Stefano Brizzolara, Alan Brown, Craig Woolsey, & Daniel J. Stilwell	Dynamics of an Autonomous Underwater Vehicle (AUV) towing another AUV	2023-04
29	Uday Chandrakant Patkar, Megha Patil, Aditya Chandhoke, Abhijeet Jain, & 4 scientists	Design of an ROV to find Dead Bodies Underwater	2023-06
30	Yangfan Cui, Peibin Zhu, Guowei Lei, Peng Chen, & Guangsong Yang	Energy-Efficient Multiple Autonomous Underwater Vehicle Path Planning Scheme in Underwater Sensor Networks	2023-08
31	Yuzhe Wang, Pengpeng Zhang, Hui Huang, & Jian Zhu	Bio-Inspired Transparent Soft Jellyfish Robot	2023-06
32	Yulin Deng, Xiudi Ren, Martin Nuernberg, & Longbin Tao	Dynamic analysis of launching and recovering ROV	2023-09
36	Hasnain Munir, Shababat Hasnain Qamar, Sara Khan, Adrian David Cheok, & 2 scientists	Design and Fabrication of a Low-Cost Multi-Purpose Underwater Remotely Operated Vehicle	2023-08
41	Zexin Zhao	Application Field and Development Trend of Small Autonomous Underwater Vehicle	2023-09
46	Jimin Hwang, Neil Bose, Gina Millar, Craig Bulger, & Ginelle Nazareth	Bubble Plume Tracking Using a Backseat Driver on an Autonomous Underwater Vehicle	2023-10
49	Fernando Gómez-Bravo, Alejandro Garrocho-Cruz, Olga Marín-Cañas, Inmaculada Pulido-Calvo, & 2 scientists	A Control Architecture for Developing Reactive Hybrid Remotely Operated Underwater Vehicles	2023-12
51	Aryan Anand, M. Yuva Bharath, Prabha Sundaravadeivel, J. Preetha Roselyn, and R. Annie Uthra	On-Device Intelligence for AI-Enabled Bio-Inspired Autonomous Underwater Vehicles (AUVs)	2024-04

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