Daniel J Toal

List of Publications by Year
in descending order

108 papers	1,405 citations	516710 16 h-index	434195 31 g-index
111 all docs	111 docs citations	111 times ranked	1090 citing authors

#	Article	IF	Citations
1	A Simulated and Experimental Analysis of Evaporation Duct Effects on Microwave Communications in the Irish Sea. IEEE Transactions on Antennas and Propagation, 2022, 70, 4728-4737.	5.1	5
2	A Study on Directly Interconnected Offshore Wind Systems during Wind Gust Conditions. Energies, 2022, 15, 168.	3.1	0
3	A survey of state-of-the-art on visual SLAM. Expert Systems With Applications, 2022, 205, 117734.	7.6	50
4	Vector Fuzzy c-Spherical Shells (VFCSS) over Non-Crisp Numbers for Satellite Imaging. Remote Sensing, 2021, 13, 4482.	4.0	2
5	Autonomous Tracking System of a Moving Target for Underwater Operations of Work-class ROVs. , 2021, , .		2
6	Vision based autonomous docking for work class ROVs. Ocean Engineering, 2020, 196, 106840.	4.3	28
7	Integration of an MES and AIV Using a LabVIEW Middleware Scheduler Suitable for Use in Industry 4.0 Applications. Applied Sciences (Switzerland), 2020, 10, 7054.	2.5	4
8	Geometric Insight into the Control Allocation Problem for Open-Frame ROVs and Visualisation of Solution. Robotics, 2020, 9, 7.	3.5	3
9	Underwater Image Enhancement and Mosaicking System Based on A-KAZE Feature Matching. Journal of Marine Science and Engineering, 2020, 8, 449.	2.6	8
10	Vision-Based Localization System Suited to Resident Underwater Vehicles. Sensors, 2020, 20, 529.	3.8	12
11	Neuro-Fuzzy Dynamic Position Prediction for Autonomous Work-Class ROV Docking. Sensors, 2020, 20, 693.	3.8	7
12	Analysis of direct interconnection technique for offshore airborne wind energy systems under normal and fault conditions. Renewable Energy, 2019, 131, 284-296.	8.9	9
13	Real-Time Secure/Unsecure Video Latency Measurement/Analysis with FPGA-Based Bump-in-the-Wire Security. Sensors, 2019, 19, 2984.	3.8	4
14	A Low-Cost Remote Solar Energy Monitoring System for a Buoyed IoT Ocean Observation Platform. , 2019, , .		16
15	Interdisciplinary Methodology to Extend Technology Readiness Levels in SONAR Simulation from Laboratory Validation to Hydrography Demonstrator. Journal of Marine Science and Engineering, 2019, 7, 159.	2.6	7
16	Remote acoustic analysis for tool condition monitoring. Procedia Manufacturing, 2019, 38, 840-847.	1.9	9
17	Integration of autonomous intelligent vehicles into manufacturing environments: Challenges. Procedia Manufacturing, 2019, 38, 1683-1690.	1.9	4
18	An Experimental Study of the Effects of the Evaporation Duct on Microwave Propagation. , 2019, , .		2

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19	A comparitive study of Image Filters and Machine Learning for use in Machined Part Recognition. , 2019, , .		1
20	Object recognition within smart manufacturing. Procedia Manufacturing, 2019, 38, 408-414.	1.9	17
21	An Overview of Popular Digital Image Processing Filtering Operations. , 2019, , .		15
22	A New Control Algorithm for Directly Interconnected Offshore Wind Turbine Generators. , 2019, , .		0
23	Adaptive Neuro-Fuzzy Network Enhanced Automatic Visual Servoing Algorithm for ROV Manipulators. , 2019, , .		2
24	Bump in the wire (BITW) security solution for a marine ROV remote control application. Journal of Information Security and Applications, 2018, 38, 111-121.	2.5	3
25	Fully automatic visual servoing control for work-class marine intervention ROVs. Control Engineering Practice, 2018, 74, 153-167.	5.5	55
26	Voxel Map Based Collision Detection for Underwater Manipulators. , 2018, , .		0
27	Real-Time Underwater StereoFusion. Sensors, 2018, 18, 3936.	3.8	17
28	Real-Time Video Latency Measurement between a Robot and Its Remote Control Station: Causes and Mitigation. Wireless Communications and Mobile Computing, 2018, 2018, 1-19.	1.2	12
29	Long term, inspection class ROV deployment approach for remote monitoring and inspection. , 2018, , .		4
30	Stereo Vision Sensing: Review of existing systems. , 2018, , .		22
31	Automated Ground Vehicle (AGV) and Sensor Technologies- A Review. , 2018, , .		39
32	Power Control of Direct Interconnection Technique for Airborne Wind Energy Systems. Energies, 2018, 11, 3134.	3.1	2
33	Fault-Tolerant Control for ROVs Using Control Reallocation and Power Isolation. Journal of Marine Science and Engineering, 2018, 6, 40.	2.6	21
34	Collision Detection for Underwater ROV Manipulator Systems. Sensors, 2018, 18, 1117.	3.8	28
35	An efficient implementation of FPGA based high speed IPSec (AH/ESP) core. International Journal of Internet Protocol Technology, 2018, 11, 97.	0.2	4
36	Underwater manipulators: A review. Ocean Engineering, 2018, 163, 431-450.	4.3	203

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37	A secure end-to-end IoT solution. Sensors and Actuators A: Physical, 2017, 263, 291-299.	4.1	34
38	Development and Testing of a Control System for the Automatic Flight of Tethered Parafoils. Journal of Field Robotics, 2017, 34, 519-538.	6.0	4
39	Lagrangian waverider and wave filtering system for use in ROV control. , 2017, , .		0
40	Inspection-Class Remotely Operated Vehiclesâ€"A Review. Journal of Marine Science and Engineering, 2017, 5, 13.	2.6	131
41	An Optical Fibre Depth (Pressure) Sensor for Remote Operated Vehicles in Underwater Applications. Sensors, 2017, 17, 406.	3.8	27
42	Underwater Depth and Temperature Sensing Based on Fiber Optic Technology for Marine and Fresh Water Applications. Sensors, 2017, 17, 1228.	3.8	53
43	Cluster head election and rotation for medical-based wireless sensor networks. , 2017, , .		2
44	Analysis of active power control algorithms of variable speed wind generators for power system frequency stabilization. Turkish Journal of Electrical Engineering and Computer Sciences, 2016, 24, 234-246.	1.4	3
45	Secure and Efficient Key Coordination Algorithm for Line Topology Network Maintenance for Use in Maritime Wireless Sensor Networks. Sensors, 2016, 16, 2204.	3.8	6
46	Memory storage administration of security encryption keys for line topology in maritime wireless sensor networks. , 2016, , .		4
47	User interface for interaction with heterogeneous vehicles for cyber-physical systems. , 2016, , .		0
48	Real-time reconstruction of underwater environments: From 2D to 3D. , 2015, , .		4
49	Direct interconnection of offshore airborne wind energy systems. , 2015, , .		1
50	Smart inspection ROV for use in challenging conditions. , 2015, , .		2
51	Closing the gap between industrial robots and underwater manipulators. , 2015, , .		6
52	Novel miniature pressure and temperature optical fibre sensor based on an extrinsic Fabry-Perot Interferometer (EFPI) and Fibre Bragg Gratings (FBG) for the Ocean environment. , 2014, , .		7
53	Smart event triggered ocean monitoring platform: Initial design and results. , 2014, , .		0
54	Modelling of a synchronous offshore pumping mode airborne wind energy farm. Energy, 2014, 71, 569-578.	8.8	10

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55	Novel method for underwater navigation aiding using a companion underwater robot as a guiding platforms. , 2013, , .		14
56	Real-Time Adaptive Control of Multiple Colocated Acoustic Sensors for an Unmanned Underwater Vehicle. IEEE Journal of Oceanic Engineering, 2013, 38, 419-432.	3.8	4
57	Airborne wind energy: Simulation of directly interconnected synchronous generators for a novel wind energy technology. , 2013, , .		0
58	A novel self-locking mechanism to connect two ROVs. , 2013, , .		0
59	Non-Reversing Generators in a Novel Design for Pumping Mode AirborneWind Energy Farm. Green Energy and Technology, 2013, , 587-597.	0.6	5
60	OceanRINGS: System concept &amp; applications. , 2012, , .		11
61	Design & development of assistive tools for future applications in the field of renewable ocean energy. , 2011, , .		4
62	Analysis of parallel connected synchronous generators in a novel offshore wind farm model. Energy, 2011, 36, 6387-6397.	8.8	17
63	Direct interconnection of offshore electricity generators. Energy, 2011, 36, 1543-1553.	8.8	20
64	Precision navigation sensors facilitate full auto pilot control of Smart ROV for ocean energy applications. , 2011, , .		15
65	Design of control law and control allocation for B747-200 using a linear quadratic regulator and the active set method. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2010, 224, 817-830.	1.3	3
66	Assistive tools for system integration, deployment, monitoring, and maintenance of ocean energy devices. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2010, 224, 155-172.	0.5	6
67	Novel Multi-Sonar Controller and Other Advanced Features Developed and Tested on Latis, a Smart, Remotely Operated Vehicle. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2010, 224, 309-325.	0.5	2
68	Multi-mode Operations Marine Robotic Vehicle â€" a Mechatronics Case Study. , 2010, , 103-120.		4
69	Towards real time vision based UUV navigation using GPU technology. , 2009, , .		3
70	The Integrated Marine Acoustic Controller System. , 2009, , .		0
71	Investigation of Vision in near Seabed Navigation on new Smart ROVLATIS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 282-285.	0.4	1
72	Smart ROVLATIS: From Design Concepts to Test Trials. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 346-357.	0.4	4

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73	A flexible, multi-mode of operation, high-resolution survey platform for surface and underwater operations. Underwater Technology, 2009, 28, 159-174.	0.3	5
74	Centre of Gravity Movement as Redundant Pitch Attitude Control in Control Allocation. , 2008, , .		0
75	A low directivity ultrasonic sensor for collision avoidance and station keeping on inspection-class AUVs. Journal of Marine Engineering and Technology, 2008, 7, 1-11.	4.1	6
76	Approach to the Real-Time Adaptive Control of Multiple High-Frequency Sonar Survey Systems for Unmanned Underwater Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 61-66.	0.4	1
77	A Real-Time Subsea Environment Visualisation Framework for Simulation of Vision Based UUV Control Architectures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 25-30.	0.4	3
78	Experimental Setups for Vision-Based Navigation of Unmanned Underwater Vehicles in Near Intervention Operations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 149-154.	0.4	3
79	A Flexible Multi-Mode of Operation Survey Platform for Surface and Underwater Operations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 212-217.	0.4	9
80	Modelling of waves and ocean currents for real-time simulation of ocean dynamics. , 2007, , .		5
81	REAL-TIME VISION BASED AUV NAVIGATION SYSTEM USING A COMPLEMENTARY SENSOR SUITE. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 373-378.	0.4	5
82	Control Allocation with Actuator Dynamics for Aircraft Flight Controls. , 2007, , .		11
83	Automated Optimisation of Simultaneous Multibeam and Sidescan Sonar Seabed Mapping. , 2007, , .		7
84	Compensation of jammed control surface of large transport aircraft by control reconfiguration. , 2007, , .		0
85	Guidance, navigation and control system for the Tethra unmanned underwater vehicle. International Journal of Control, 2007, 80, 1050-1076.	1.9	14
86	A Control System Development for Submersible Sea Cage System. , 2007, , .		2
87	Neural network augmented identification of underwater vehicle models. Control Engineering Practice, 2007, 15, 715-725.	5.5	67
88	Experimental Investigations of Electromagnetic Wave Propagation in Seawater. , 2006, , .		66
89	Review of Machine Vision Applications in Unmanned Underwater Vehicles. , 2006, , .		25
90	Proximal object and hazard detection for autonomous underwater vehicle with optical fibre sensors. Robotics and Autonomous Systems, 2005, 53, 214-229.	5.1	16

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91	Neural network control of underwater vehicles. Engineering Applications of Artificial Intelligence, 2005, 18, 533-547.	8.1	57
92	Implementation and application of a real-time sidescan sonar simulator. , 2005, , .		7
93	Design of an advanced AUV for deployment close to the seabed and other hazards. , 2005, , .		9
94	A novel wideangle ultrasonic sensor utilizing a curved radiator developed for use in an AUV obstacle avoidance system. , 2005, , .		2
95	Neural network augmented identification of underwater vehicle models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 263-268.	0.4	15
96	Subsumption and Fuzzy-Logic, Experiments in Behavior-Based Control of Mobile Robots. International Journal of Smart Engineering System Design, 2003, 5, 161-175.	0.2	6
97	Implementing a Layered Control Architecture on an Open Framed AUV. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 61-66.	0.4	1
98	Buoyancy Control for an Autonomous Underwater Vehicle. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 199-204.	0.4	10
99	A Survey of AI Techniques for Control of Underwater Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 145-150.	0.4	1
100	â€˜Pull to positionâ€™, a different approach to the control of robot arms for mobile robots. Journal of Materials Processing Technology, 2002, 123, 393-398.	6.3	4
101	Pitfalls of simulation for mobile robot controller development. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 377-382.	0.4	0
102	Autonomous submersible robots. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 383-386.	0.4	1
103	Identification of underwater vehicle dynamics with neural networks. , 0, , .		4
104	Identification and control of underwater vehicles with the aid of neural networks. , 0, , .		1
105	Computer Vision Applications in the Navigation of Unmanned Underwater Vehicles. , 0, , .		9
106	Application of Evolutionary Computing in Control Allocation. , 0, , .		0
107	Implementing Secure Key Coordination Scheme for Line Topology Wireless Sensor Networks. , 0, , .		1
108	Multi-Sonar Integration and the Advent of Senor Intelligence. , 0, , .		1