K H Low

List of Publications by Year in Descending Order

163 papers	2,012 citations	22 h-index	36 g-index
206 ext. papers	2,685 ext. citations	3.3 avg, IF	5.51 L-index

#	Paper	IF	Citations
163	UAV path optimization with an integrated cost assessment model considering third-party risks in metropolitan environments. *Reliability Engineering and System Safety*, **2022**, 222, 108399	6.3	2
162	Adaptive conflict resolution for multi-UAV 4D routes optimization using stochastic fractal search algorithm. *Transportation Research Part C: Emerging Technologies*, **2022**, 139, 103666	8.4	0
161	Route coordination of UAV fleet to track a ground moving target in search and lock (SAL) task over urban airspace. *IEEE Internet of Things Journal*, **2022**, 1-1	10.7	0
160	Homography-based Visual Servoing for Underactuated VTOL UAVs Tracking a 6-DOF Moving Ship. *IEEE Transactions on Vehicular Technology*, **2021**, 1-1	6.8	0
159	Investigation and Modeling of Flight Technical Error (FTE) Associated With UAS Operating With and Without Pilot Guidance. *IEEE Transactions on Vehicular Technology*, **2021**, 1-1	6.8	1
158	Conflict-free four-dimensional path planning for urban air mobility considering airspace occupancy. *Aerospace Science and Technology*, **2021**, 107154	4.9	7
157	UAV airborne collision to manned aircraft engine: Damage of fan blades and resultant thrust loss. *Aerospace Science and Technology*, **2021**, 113, 106645	4.9	8
156	Multiple air route crossing waypoints optimization via artificial potential field method. *Chinese Journal of Aeronautics*, **2021**, 34, 279-292	3.7	4
155	An Adaptive Path Replanning Method for Coordinated Operations of Drone in Dynamic Urban Environments. *IEEE Systems Journal*, **2021**, 15, 4600-4611	4.3	11
154	Framework for the Estimation of Safe Wake Separation Distance between Same-Track Multi-Rotor UAS **2021**,		1
153	Linear Velocity-Free Visual Servoing Control for Unmanned Helicopter Landing on a Ship With Visibility Constraint. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 1-15	7.3	5
152	Public acceptance of drone applications in a highly urbanized environment. *Technology in Society*, **2021**, 64, 101462	6.3	9
151	Swarm-Based 4D Path Planning For Drone Operations in Urban Environments. *IEEE Transactions on Vehicular Technology*, **2021**, 70, 7464-7479	6.8	9
150	3D path planning and real-time collision resolution of multirotor drone operations in complex urban low-altitude airspace. *Transportation Research Part C: Emerging Technologies*, **2021**, 129, 103123	8.4	2
149	Software-in-the-loop investigation of wake-vortex-encounter-response of identical multirotor pair with PX4 attitude controller. *Aerospace Science and Technology*, **2021**, 117, 106967	4.9	0
148	Trajectory-based flight scheduling for AirMetro in urban environments by conflict resolution. *Transportation Research Part C: Emerging Technologies*, **2021**, 131, 103355	8.4	3
147	Image-Based Visual Servoing of Rotorcrafts to Planar Visual Targets of Arbitrary Orientation. *IEEE Robotics and Automation Letters*, **2021**, 6, 7861-7868	4.2	3

146	Structure-Controlled Variable Stiffness Robotic Joint Based on Multiple Rotary Flexure Hinges. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 12452-12461	8.9	2
145	Preliminary Investigation of Wake Vortex Generated by Spinning Quadrotor Propellers Using Overset Mesh **2021**,		1
144	Airborne collision severity study on engine ingestion caused by harmless-categorized drones **2021**,		1
143	Feasibility of mercury (II) ion removal by nitrated polycarbonate derived from waste optical discs. *International Journal of Environmental Science and Technology*, **2020**, 17, 4161-4170	3.3	0
142	A Risk-based UAS Traffic Network Model for Adaptive Urban Airspace Management **2020**,		3
141	Airborne Collision Evaluation between Drone and Aircraft Engine: Effects of Position and Posture on Damage of Fan Blades **2020**,		5
140	Data Analysis on Track Deviation of UAS Operating under Visual Line of Sight (VLoS) Condition **2020**,		2
139	UAV Trajectory Estimation and Deviation Analysis for Contingency Management in Urban Environments **2020**,		3
138	Transition Optimization for a VTOL Tail-Sitter UAV. *IEEE/ASME Transactions on Mechatronics*, **2020**, 25, 2534-2545	5.5	16
137	Cooperative Path Planning for Heterogeneous Unmanned Vehicles in a Search-and-Track Mission Aiming at an Underwater Target. *IEEE Transactions on Vehicular Technology*, **2020**, 69, 6782-6787	6.8	45
136	Preliminary Evaluation of Thrust Loss in Commercial Aircraft Engine due to Airborne Collision with Unmanned Aerial Vehicles (UAVs) **2020**,		1
135	Three-dimensional (3D) Monte-Carlo modeling for UAS collision risk management in restricted airport airspace. *Aerospace Science and Technology*, **2020**, 105, 105964	4.9	9
134	Risk Assessment Model for UAV Cost-Effective Path Planning in Urban Environments. *IEEE Access*, **2020**, 8, 150162-150173	3.5	14
133	Collision probability between intruding drone and commercial aircraft in airport restricted area based on collision-course trajectory planning. *Transportation Research Part C: Emerging Technologies*, **2020**, 120, 102736	8.4	5
132	A Concept of Airspace Configuration and Operational Rules for UAS in Current Airspace **2020**,		3
131	Adaptive Output-Feedback Image-Based Visual Servoing for Quadrotor Unmanned Aerial Vehicles. *IEEE Transactions on Control Systems Technology*, **2020**, 28, 1034-1041	4.8	14
130	Three-dimensional (3D) Dynamic Obstacle Perception in a Detect-and-Avoid Framework for Unmanned Aerial Vehicles **2019**,		4
129	Evolutionary Optimization-based Mission Planning for UAS Traffic Management (UTM) **2019**,		15

128	Collision Risk Assessment between UAS and Landing Aircraft in Restricted Airspace Surrounding an Airport using 3D Monte-Carlo Simulation **2019**,		2
127	Collision risk management for non-cooperative UAS traffic in airport-restricted airspace with alert zones based on probabilistic conflict map. *Transportation Research Part C: Emerging Technologies*, **2019**, 109, 19-39	8.4	13
126	Output Feedback Image-Based Visual Servoing of Rotorcrafts. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2019**, 93, 277-287	2.9	5
125	A Variable Stiffness Robotic Gripper Based on Structure-Controlled Principle. *IEEE Transactions on Automation Science and Engineering*, **2018**, 15, 1104-1113	4.9	16
124	Preliminary Concept of Adaptive Urban Airspace Management for Unmanned Aircraft Operations **2018**,		10
123	RESEARCH AND DEVELOPMENT TRENDS IN ROBOT-ASSISTED WALKING REHABILITATION INCORPORATING POSTURAL BALANCING **2018**, 43-67		
122	Mechanism design and kinematic analysis of a robotic manipulator driven by joints with two degrees of freedom (DOF). *Industrial Robot*, **2018**, 45, 34-43	1.4	4
121	Design and Evaluation of an Underactuated Adaptive Finger for Parallel Grippers **2018**,		1
120	A Path Planning Algorithm for Smooth Trajectories of Unmanned Aerial Vehicles via Potential Fields **2018**,		3
119	Impact of Sensors on Collision Risk Prediction for Non-Cooperative Traffic in Terminal Airspace **2018**,		4
118	Preliminary 4.5G Cellular Network Assessment with Calibrated Standard Propagation Model (SPM) for uTM-UAS Operations in Singapore Airspace **2018**,		3
117	Dynamic Visual Servoing of a Rotary-wing Unmanned Aerial Vehicle Without Velocity Measurement **2017**,		3
116	Concept of Operations (ConOps) for Traffic Management of Unmanned Aircraft Systems (TM-UAS) in Urban Environment **2017**,		7
115	. *IEEE/ASME Transactions on Mechatronics*, **2017**, 22, 2554-2563	5.5	25
114	**2017**,		2
113	A starfish robot based on soft and smart modular structure (SMS) actuated by SMA wires. *Bioinspiration and Biomimetics*, **2016**, 11, 056012	2.6	39
112	Ground Stereo Vision-Based Navigation for Autonomous Take-off and Landing of UAVs: A Chan-Vese Model Approach. *International Journal of Advanced Robotic Systems*, **2016**, 13, 67	1.4	21
111	Autonomous Formation Flight of Indoor UAVs Based on Model Predictive Control **2016**,		4

110	Innovations in Infrastructure Service Robots. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2016**, 3-16	0.6	4
109	Strategy-based robotic item picking from shelves **2016**,		11
108	Locomotion and gait analysis of multi-limb soft robots driven by smart actuators **2016**,		4
107	Bio-inspired flow sensing and prediction for fish-like undulating locomotion: A CFD-aided approach. *Journal of Bionic Engineering*, **2015**, 12, 406-417	2.7	19
106	DESIGN AND GAIT ANALYSIS OF A TORTOISE-LIKE ROBOT WITH SOFT LIMBS **2015**,		1
105	Perspectives on biologically inspired hybrid and multi-modal locomotion. *Bioinspiration and Biomimetics*, **2015**, 10, 020301	2.6	46
104	A flexible fixtureless assembly of T-joint frame structures **2015**,		1
103	Biorobotics with Hybrid and Multimodal Locomotion [TC Spotlight]. *IEEE Robotics and Automation Magazine*, **2015**, 22, 29-181	3.4	1
102	Design and control of robotic exoskeleton with balance stabilizer mechanism **2015**,		12
101	Recent Development and Trends of Clinical-Based Gait Rehabilitation Robots. *Springer Tracts in Advanced Robotics*, **2015**, 41-75	0.5	8
100	Gait study and pattern generation of a starfish-like soft robot with flexible rays actuated by SMAs. *Journal of Bionic Engineering*, **2014**, 11, 400-411	2.7	65
99	Design and Implementation of a Lightweight Bioinspired Pectoral Fin Driven by SMA. *IEEE/ASME Transactions on Mechatronics*, **2014**, 19, 1773-1785	5.5	34
98	An optimized perching mechanism for autonomous perching with a quadrotor **2014**,		14
97	Effective Phase Tracking for Bioinspired Undulations of Robotic Fish Models: A Learning Control Approach. *IEEE/ASME Transactions on Mechatronics*, **2014**, 19, 191-200	5.5	53
96	An individual-specific gait pattern prediction model based on generalized regression neural networks. *Gait and Posture*, **2014**, 39, 443-8	2.6	40
95	On-line Optimization of Biomimetic Undulatory Swimming by an Experiment-based Approach. *Journal of Bionic Engineering*, **2014**, 11, 213-225	2.7	18
94	Detection of abnormal muscle activations during walking following spinal cord injury (SCI). *Research in Developmental Disabilities*, **2013**, 34, 1226-35	2.7	17
93	A Three-Dimensional Kinematics Analysis of a Koi Carp Pectoral Fin by Digital Image Processing. *Journal of Bionic Engineering*, **2013**, 10, 210-221	2.7	10

92	Design of Control Strategy for Autonomous Perching with a Quadrotor. *Applied Mechanics and Materials*, **2013**, 461, 506-512	0.3	1
91	Survey and Introduction to the Focused Section on Bio-Inspired Mechatronics. *IEEE/ASME Transactions on Mechatronics*, **2013**, 18, 409-418	5.5	31
90	Parametric Study of an Underwater Finned Propulsor Inspired by Bluespotted Ray. *Journal of Bionic Engineering*, **2012**, 9, 166-176	2.7	20
89	Design and Locomotion Control of a Biomimetic Underwater Vehicle With Fin Propulsion. *IEEE/ASME Transactions on Mechatronics*, **2012**, 17, 25-35	5.5	180
88	Review and Fin Structure Design for Robotic Manta Ray (RoMan IV). *Journal of Robotics and Mechatronics*, **2012**, 24, 620-628	0.7	8
87	A Bio-Inspired Adaptive Perching Mechanism for Unmanned Aerial Vehicles. *Journal of Robotics and Mechatronics*, **2012**, 24, 642-648	0.7	10
86	Current and future trends of biologically inspired underwater vehicles **2011**,		13
85	Robot-assisted gait rehabilitation: From exoskeletons to gait systems **2011**,		47
84	Improvement and testing of a robotic manta ray (RoMan-III) **2011**,		8
83	Subject-specific gait parameters prediction for robotic gait rehabilitation via generalized regression neural network **2011**,		3
82	Synchronized walking coordination for impact-less footpad contact of an overground gait rehabilitation system: NaTUre-gaits. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975353	1.3	4
81	Optimization of swimming locomotion for fish robots with multi-actuation **2011**,		1
80	Posture analysis and application of a bionic pectoral foil **2011**,		1
79	Subject-oriented overground walking pattern generation on a rehabilitation robot based on foot and pelvic trajectories. *Procedia IUTAM*, **2011**, 2, 109-127		3
78	Initial System Evaluation of an Overground Rehabilitation Gait Training Robot (NaTUre-gaits). *Advanced Robotics*, **2011**, 25, 1927-1948	1.7	21
77	Subject-specific lower limb waveforms planning via artificial neural network. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975491	1.3	5
76	Effects of ground contact for overground walking on a robotic gait trainer **2011**,		2
75	Clinical-Based Engineering Assessment and Data Interpretation of Hand Strength for Task-Oriented Robotic Rehabilitation. *Advanced Robotics*, **2011**, 25, 1991-2018	1.7	3

74	Modulation of weight off-loading level over body-weight supported locomotion training. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975354	1.3	3
73	Clinical-Based, Task-Specific and Subject-Oriented Approaches Essential to Effective Robotics Rehabilitation. *Advanced Robotics*, **2011**, 25, 1851-1855	1.7	
72	A subject-based motion generation model with adjustable walking pattern for a gait robotic trainer: NaTUre-gaits **2011**,		11
71	A PERFORMANCE PREDICTIVE MODEL FOR STEADY SWIMMING OF A FISH ROBOT. *International Journal of Humanoid Robotics*, **2011**, 08, 185-203	1.2	1
70	Natural gait parameters prediction for gait rehabilitation via artificial neural network **2010**,		14
69	Performance study of a fish robot propelled by a flexible caudal fin **2010**,		13
68	Kinematic modeling framework for biomimetic undulatory fin motion based on coupled nonlinear oscillators **2010**,		5
67	INITIAL STUDY ON A HOME-BASED FLOOR-MAT SYSTEM FOR FALL PREVENTION OF ELDERLY BASED ON GAIT ANALYSIS. *International Journal of Information Acquisition*, **2010**, 07, 135-149		1
66	An improved semi-empirical model for a body and/or caudal fin (BCF) fish robot **2010**,		3
65	Parametric study of the swimming performance of a fish robot propelled by a flexible caudal fin. *Bioinspiration and Biomimetics*, **2010**, 5, 046002	2.6	67
64	Effects of body-weight support locomotion training (BWSLT) on EMG activation in healthy and spinal cord injury (SCI) subjects **2010**,		2
63	Comprehensive planning of robotic therapy and assessment of task-oriented functions via improved QFD applicable to hand rehabilitation **2010**,		5
62	Pelvic control and over-ground walking methodology for impaired gait recovery **2009**,		7
61	Effective Gait planning for robotic rehabilitation - From normal gait study to application in clinical rehabilitation **2009**,		4
60	Electromyography analysis for pre-clinical trials of hand rehabilitation tasks using design of experiments **2009**,		3
59	Comprehensive signal interpretation of functional hand strength for activities of daily living (ADL) rehabilitation via multivariate data analysis (MVA) **2009**,		1
58	Rehabilitation control strategies for a gait robot via EMG evaluation **2009**,		12
57	An analytical approach for better swimming efficiency of slender fish robots based on Lighthill's model **2009**,		4

56	Non-jamming conditions in multi-contact rigid-body dynamics. *Multibody System Dynamics*, **2009**, 22, 269-295	2.8	11
55	Bionic asymmetry: from amiiform fish to undulating robotic fins. *Science Bulletin*, **2009**, 54, 562-568		13
54	Gait Planning for Steady Swimming Control of Biomimetic Fish Robots. *Advanced Robotics*, **2009**, 23, 805-829		32
53	Initial home-based foot-mat design & analysis of bio-gait characteristics to prevent fall in elderly people **2009**,		4
52	Gait planning for effective rehabilitation - From gait study to application in clinical rehabilitation **2009**,		9
51	Locomotion planning of biomimetic robotic fish with multi-joint actuation **2009**,		2
50	Qualitative evaluations of gait rehabilitation via EMG muscle activation pattern: Repetition, symmetry, and smoothness **2009**,		11
49	Initial analysis of EMG signals of hand functions associated to rehabilitation tasks **2009**,		10
48	A multi-disciplinary approach for effective hand rehabilitation with clinical-based assessment outcomes **2009**,		3
47	Objective and quantitative assessment methodology of hand functions for rehabilitation **2009**,		8
46	Performance predict model for a body and caudal fin (BCF) biomimetics fish robot **2009**,		3
45	Robust gait control for steady swimming of a carangiform fish robot **2009**,		5
44	LEARNING FROM GYMNOTIFORM SWIMMERS DESIGN AND IMPLEMENTATION OF ROBOTIC KNIFEFISH NKF-II. *International Journal of Information Acquisition*, **2008**, 05, 137-147		3
43	Initial analysis and design of an assistive rehabilitation hand device with free loading and fingers motion visible to subjects. *Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics*, **2008**,	2	12
42	A bilateral teleoperation controller considering the transition between the free space motion and the constrained motion. *Robotica*, **2008**, 26, 781-790	2.1	6
41	Numerical and Experimental Research on Modular Oscillating Fin. *Journal of Bionic Engineering*, **2008**, 5, 13-23	2.7	11
40	Modular design and initial gait study of an amphibian robotic turtle **2007**,		16
39	Development of modular and reconfigurable biomimetic robotic fish with undulating fin **2007**,		5

38	Design and Initial Testing of a Single-Motor-Driven Spatial Pectoral Fin Mechanism **2007**,		4
37	Computational research on modular undulating fin for biorobotic underwater propulsor. *Journal of Bionic Engineering*, **2007**, 4, 25-32	2.7	29
36	Biomimetic Design and Workspace Study of Compact and Modular Undulating Fin Body Segments **2007**,		8
35	MANEUVERING OF BIOMIMETIC FISH BY INTEGRATING A BUOYANCY BODY WITH MODULAR UNDULATING FINS. *International Journal of Humanoid Robotics*, **2007**, 04, 671-695	1.2	6
34	Virtual circle mapping for master–slave hand systems. *Advanced Robotics*, **2007**, 21, 183-208	1.7	0
33	Parametric Study of Modular and Reconfigurable Robotic Fish with Oscillating Caudal Fin Mechanisms **2007**,		2
32	Mechatronics and buoyancy implementation of robotic fish swimming with modular fin mechanisms. *Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering*, **2007**, 221, 295-309	1	9
31	Thermosensitive splicing of a clock gene and seasonal adaptation. *Cold Spring Harbor Symposia on Quantitative Biology*, **2007**, 72, 599-606	3.9	18
30	Morphologic Optimal Design of Bionic Undulating Fin Based on Computational Fluid Dynamics **2007** ,		2
29	Locomotion and depth control of robotic fish with modular undulating fins. *International Journal of Automation and Computing*, **2006**, 3, 348-357	3.5	32
28	A Computational Fluid Dynamics (CFD) analysis of an undulatory mechanical fin driven by shape memory alloy. *International Journal of Automation and Computing*, **2006**, 3, 374-381	3.5	21
27	Locomotion Consideration and Implementation of Robotic Fish with Modular Undulating Fins: Analysis and Experimental Study **2006**,		7
26	Initial Prototype Design and Investigation of an Undulating Body by SMA **2006**,		14
25	Maneuvering and Buoyancy Control of Robotic Fish Integrating with Modular Undulating Fins **2006**,		3
24	Biomimetic Motion Planning of an Undulating Robotic Fish Fin. *JVC/Journal of Vibration and Control* , **2006**, 12, 1337-1359	2	106
23	Initial Research on Development of a Flexible Pectoral Fin Using Shape Memory Alloy **2006**,		3
22	Locomotive Control of a Wearable Lower Exoskeleton for Walking Enhancement. *JVC/Journal of Vibration and Control*, **2006**, 12, 1311-1336	2	41
21	Reference Trajectory Generation for Force Tracking Impedance Control by Using Neural Network-based Environment Estimation **2006**,		5

20	Design and Implementation of NTU Wearable Exoskeleton as an Enhancement and Assistive Device. *Applied Bionics and Biomechanics*, **2006**, 3, 209-225	1.6	6
19	Kinematic modeling, mobility analysis and design of wheeled mobile robots. *Advanced Robotics*, **2005**, 19, 73-99	1.7	15
18	MODELING AND MOTION CONTROL OF ROBOTIC HAND FOR TELEMANIPULATION APPLICATION. *International Journal of Software Engineering and Knowledge Engineering*, **2005**, 15, 147-152	1	2
17	A virtual boundary model for a quick drop-impact analysis of electronic components in TV model. *Advances in Engineering Software*, **2004**, 35, 537-551	3.6	4
16	Frequencies of beams carrying multiple masses: Rayleigh estimation versus eigenanalysis solutions. *Journal of Sound and Vibration*, **2003**, 268, 843-853	3.9	14
15	Terrain-evaluation-based motion planning for legged locomotion on irregular terrain. *Advanced Robotics*, **2003**, 17, 761-778	1.7	4
14	On the methods to derive frequency equations of beams carrying multiple masses. *International Journal of Mechanical Sciences*, **2001**, 43, 871-881	5.5	29
13	A comparative study of the eigenvalue solutions for mass-loaded beams under classical boundary conditions. *International Journal of Mechanical Sciences*, **2001**, 43, 237-244	5.5	13
12	Terrain evaluation and its application to path planning for walking machines. *Advanced Robotics*, **2001**, 15, 729-748	1.7	21
11	An efficient foot-force distribution algorithm for quadruped walking robots. *Robotica*, **2000**, 18, 403-413	2.1	27
10	Combined use of equivalent center mass and stiffness factors to better estimate frequencies of mass loaded plates. *Advances in Engineering Software*, **2000**, 31, 295-302	3.6	2
9	Quadruped Free Gait Generation Based on the Primary/Secondary Gait. *Robotica*, **1999**, 17, 405-412	2.1	23
8	Experimental and Analytical Study of the Frequencies of an S-C-S-C Plate Carrying a Concentrated Mass. *Journal of Vibration and Acoustics, Transactions of the ASME*, **1993**, 115, 391-396	1.6	4
7	Comparative Study of Frequencies for Plates Carrying Mass. *Journal of Engineering Mechanics - ASCE*, **1993**, 119, 917-937	2.4	4
6	Eigen-Analysis of a Tip-Loaded Beam Attached to a Rotating Joint. *Journal of Vibration and Acoustics, Transactions of the ASME*, **1990**, 112, 497-500	1.6	17
5	Solution schemes for the system equations of flexible robots. *Journal of Field Robotics*, **1989**, 6, 383-405		22
4	A Lagrangian Formulation of the Dynamic Model for Flexible Manipulator Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1988**, 110, 175-181	1.6	64
3	Numerical studies on modeling the near- and far-field wake vortex of a quadrotor in forward flight. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*,09544100211029	0.9	1

2	Modeling and control on hysteresis nonlinearity in biomimetic undulating fins		2
1	Severity assessment of aircraft engine fan blades under airborne collision of unmanned aerial vehicles comparable to bird strike certification standards. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*,095441002110449	0.9	0