

# Shuxiang Guo

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

346  
papers

3,322  
citations

27  
h-index

40  
g-index

505  
ext. papers

5,492  
ext. citations

3  
avg, IF

5.86  
L-index

#	Paper	IF	Citations
346	Multilevel Operation Strategy of a Vascular Interventional Robot System for Surgical Safety in Teleoperation. <i>IEEE Transactions on Robotics</i> , <b>2022</b> , 1-13	6.5	2
345	Uncertain moving obstacles avoiding method in 3D arbitrary path planning for a spherical underwater robot. <i>Robotics and Autonomous Systems</i> , <b>2022</b> , 151, 104011	3.5	3
344	Magnetically Controlled Multifunctional Capsule Robot for Dual-Drug Delivery. <i>IEEE Systems Journal</i> , <b>2022</b> , 1-12	4.3	0
343	Cloud Communication-based Sensing Performance Evaluation of a Vascular Interventional Robot System. <i>IEEE Sensors Journal</i> , <b>2022</b> , 1-1	4	1
342	Task Planning and Collaboration of Jellyfish-inspired Multiple Spherical Underwater Robots. <i>Journal of Bionic Engineering</i> , <b>2022</b> , 19, 643	2.7	3
341	Machine Learning-Based Surgical State Perception and Collaborative Control for a Vascular Interventional Robot. <i>IEEE Sensors Journal</i> , <b>2022</b> , 22, 7106-7118	4	2
340	A Surgeon's Habits-based Novel Master Manipulator for the Vascular Interventional Surgical Master-Slave Robotic System. <i>IEEE Sensors Journal</i> , <b>2022</b> , 1-1	4	3
339	Active Suppression Method of Dangerous Behaviors for Robot-Assisted Vascular Interventional Surgery. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2022</b> , 71, 1-9	5.2	2
338	A Virtual Linkage-based Dual Event-triggered Formation Control Strategy for Multiple Amphibious Spherical Robots in Constrained Space with Limited Communication. <i>IEEE Sensors Journal</i> , <b>2022</b> , 1-1	4	1
337	Performance Evaluation of a Hybrid Thruster for Spherical Underwater Robots. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2022</b> , 1-1	5.2	2
336	ADRC-Based Control Method for the Vascular Intervention Master-Slave Surgical Robotic System.. <i>Micromachines</i> , <b>2021</b> , 12,	3.3	3
335	A Mirror Bilateral Neuro-Rehabilitation Robot System with the sEMG-Based Real-Time Patient Active Participant Assessment.. <i>Life</i> , <b>2021</b> , 11,	3	3
334	A Compensation Method for Magnetic Localization on Capsule Robot in Medical Application. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 26690-26698	4	0
333	Characteristic Analysis of a Magnetically Actuated Capsule Microrobot in Medical Applications. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2021</b> , 1-1	5.2	3
332	A Multi-Sensor Fusion Self-Localization System of a Miniature Underwater Robot in Structured and GPS-denied Environments. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	5
331	Performance Evaluation of a Magnetically Driven Microrobot for Targeted Drug Delivery. <i>Micromachines</i> , <b>2021</b> , 12,	3.3	2
330	A Magnetorheological Fluids-Based Robot-Assisted Catheter/Guidewire Surgery System for Endovascular Catheterization. <i>Micromachines</i> , <b>2021</b> , 12,	3.3	2

329	A Multi-Functional Module-Based Capsule Robot. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 12057-12067	4	2
328	An intention-based online bilateral training system for upper limb motor rehabilitation. <i>Microsystem Technologies</i> , <b>2021</b> , 27, 211-222	1.7	7
327	A Home-Based Bilateral Rehabilitation System With sEMG-based Real-Time Variable Stiffness. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2021</b> , 25, 1529-1541	7.2	4
326	Selective Motion Control of a Novel Magnetic Driven Minirobot with Targeted Drug Sustained-release Function. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2021</b> , 1-1	5.5	2
325	Total Force Analysis and Safety Enhancing for Operating Both Guidewire and Catheter in Endovascular Surgery. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	8
324	Design, modeling and control of a miniature bio-inspired amphibious spherical robot. <i>Mechatronics</i> , <b>2021</b> , 77, 102574	3	6
323	. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 20807-20816	4	6
322	Design of Intelligent Human-Computer Interaction System for Hard of Hearing and Non-disabled People. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	3
321	Development of a Tactile Sensing Robot-Assisted System for Vascular Interventional Surgery. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	9
320	Study on Decentralization of Spherical Amphibious Multi-robot Control System Based on Smart Contract and Blockchain. <i>Journal of Bionic Engineering</i> , <b>2021</b> , 18, 1317-1330	2.7	3
319	Multiple Bio-Inspired Father-Son Underwater Robot for Underwater Target Object Acquisition and Identification.. <i>Micromachines</i> , <b>2021</b> , 13,	3.3	1
318	Machine learning-based operation skills assessment with vascular difficulty index for vascular intervention surgery. <i>Medical and Biological Engineering and Computing</i> , <b>2020</b> , 58, 1707-1721	3.1	10
317	A novel noncontact detection method of surgeon's operation for a master-slave endovascular surgery robot. <i>Medical and Biological Engineering and Computing</i> , <b>2020</b> , 58, 871-885	3.1	9
316	Collaboration and Task Planning of Turtle-Inspired Multiple Amphibious Spherical Robots. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	10
315	A Surgeon's Operating Skills-Based Non-Interference Operation Detection Method for Novel Vascular Interventional Surgery Robot Systems. <i>IEEE Sensors Journal</i> , <b>2020</b> , 20, 3879-3891	4	8
314	A Two-channel Haptic Force Interface for Endovascular Robotic Systems <b>2020</b> ,		1
313	A Multi-Binocular Camera-based Localization Method for Amphibious Spherical Robots <b>2020</b> ,		1
312	Evaluation Performance of the Magnetic Rotational Field for Magnetically Actuated Microrobot System <b>2020</b> ,		1

311	Study on Force Feedback Control of the Vascular Interventional Surgical Robot based on Fuzzy PID <b>2020,</b>		1
310	Underwater Obstacle Avoiding Trajectory Tracking Approach for Amphibious Spherical Robots <b>2020,</b>		1
309	A Novel Step Optimal Path Planning Algorithm for the Spherical Mobile Robot Based on Fuzzy Control. <i>IEEE Access</i> , <b>2020</b> , 8, 1394-1405	3.5	12
308	A highly stable and efficient spherical underwater robot with hybrid propulsion devices. <i>Autonomous Robots</i> , <b>2020</b> , 44, 759-771	3	13
307	Improved Model Predictive-Based Underwater Trajectory Tracking Control for the Biomimetic Spherical Robot under Constraints. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 8106	2.6	4
306	Design and implementation of a novel wireless modular capsule robotic system in pipe. <i>Medical and Biological Engineering and Computing</i> , <b>2020</b> , 58, 2305-2324	3.1	6
305	Study on the Autonomous Multirobot Collaborative Control System Based on Spherical Amphibious Robots. <i>IEEE Systems Journal</i> , <b>2020</b> , 1-8	4.3	5
304	Path Optimization Method for the Spherical Underwater Robot in Unknown Environment. <i>Journal of Bionic Engineering</i> , <b>2020</b> , 17, 944-958	2.7	3
303	A Fuzzy PID Algorithm for a Novel Miniature Spherical Robots with Three-dimensional Underwater Motion Control. <i>Journal of Bionic Engineering</i> , <b>2020</b> , 17, 959-969	2.7	8
302	Modeling and Experimental Verification of a New Spherical Underwater Robot <b>2020,</b>		1
301	A Novel Clamping Mechanism for Circumferential Force Feedback Device of the Vascular Interventional Surgical Robot <b>2020,</b>		3
300	A Novel Fuzzy Neural Network-based Rehabilitation Stage Classifying Method for the Upper Limb Rehabilitation Robotic System <b>2020,</b>		1
299	Design, modeling and experimental evaluation of a legged, multi-vectorized water-jet composite driving mechanism for an amphibious spherical robot. <i>Microsystem Technologies</i> , <b>2020</b> , 26, 475-487	1.7	4
298	Continuous Estimation of a sEMG-Based Upper Limb Joint <b>2019,</b>		3
297	Guidewire Tracking based on Visual Algorithm for Endovascular Interventional Robotic System <b>2019,</b>		1
296	Design and Evaluation of A New Push-type Targeted Drug Delivery Capsule Robot <b>2019,</b>		1
295	<b>2019,</b>		1
294	Study on Motion Recognition for a Hand Rehabilitation Robot Based on sEMG Signals <b>2019,</b>		1

293	Design and Evaluation of a Novel Slave Manipulator for the Vascular Interventional Robotic System <b>2019</b> ,		1
292	Study on Cooperative Control Algorithm of Two Spherical Amphibious Robots <b>2019</b> ,		1
291	Study on the Path Planning of the Spherical Mobile Robot based on Fuzzy Control <b>2019</b> ,		2
290	Study on Horizontal Path Tracking Control Method for the Spherical Amphibious Robot <b>2019</b> ,		1
289	Development of a Grasper for Vascular Interventional Surgery Robotic System <b>2019</b> ,		2
288	Study on Collaborative Algorithm for a Spherical Multi-robot System based on Micro-blockchain <b>2019</b> ,		1
287	Hydrodynamic Analysis-Based Modeling and Experimental Verification of a New Water-Jet Thruster for an Amphibious Spherical Robot. <i>Sensors</i> , <b>2019</b> , 19,	3.8	24
286	A CNN-based prototype method of unstructured surgical state perception and navigation for an endovascular surgery robot. <i>Medical and Biological Engineering and Computing</i> , <b>2019</b> , 57, 1875-1887	3.1	22
285	A Telepresence System for Therapist-in-the-Loop Training for Elbow Joint Rehabilitation. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 1710	2.6	6
284	Robust RGB-D Camera and IMU Fusion-based Cooperative and Relative Close-range Localization for Multiple Turtle-inspired Amphibious Spherical Robots. <i>Journal of Bionic Engineering</i> , <b>2019</b> , 16, 442-454	2.7	22
283	A Novel Robot-Assisted Endovascular Catheterization System With Haptic Force Feedback. <i>IEEE Transactions on Robotics</i> , <b>2019</b> , 35, 685-696	6.5	41
282	Underwater motion characteristics evaluation of multi amphibious spherical robots. <i>Microsystem Technologies</i> , <b>2019</b> , 25, 499-508	1.7	18
281	Characteristic evaluation of a magnetic-actuated microrobot in pipe with screw jet motion. <i>Microsystem Technologies</i> , <b>2019</b> , 25, 719-727	1.7	8
280	A Vascular Interventional Surgical Robotic System Based on Force-Visual Feedback. <i>IEEE Sensors Journal</i> , <b>2019</b> , 19, 11081-11089	4	14
279	A vascular interventional surgical robot based on surgeon's operating skills. <i>Medical and Biological Engineering and Computing</i> , <b>2019</b> , 57, 1999-2010	3.1	16
278	Quadrotor Vision-based Localization for Amphibious Robots in Amphibious Area <b>2019</b> ,		3
277	Study on Robust Control for the Vascular Interventional Surgical Robot <b>2019</b> ,		3
276	Improvement and Evaluation for the Stability of Mobile Spherical Underwater Robots (SUR III) <b>2019</b> ,		3

275	A Novel Small-scale Turtle-inspired Amphibious Spherical Robot <b>2019</b> ,		7
274	A CNNs-based of Force and Torque Identification Model for Vascular Interventional Surgery Robot <b>2019</b> ,		1
273	Radial Basis Function Neural Network-based Control Method for a Upper Limb Rehabilitation Robot <b>2019</b> ,		1
272	A Method of Evaluating Rehabilitation Stage by sEMG Signals for the Upper Limb Rehabilitation Robot <b>2019</b> ,		2
271	Design and evaluation of sensorized robot for minimally vascular interventional surgery. <i>Microsystem Technologies</i> , <b>2019</b> , 25, 2759-2766	1.7	10
270	Surgeons' Operation Skill-Based Control Strategy and Preliminary Evaluation for a Vascular Interventional Surgical Robot. <i>Journal of Medical and Biological Engineering</i> , <b>2019</b> , 39, 653-664	2.2	1
269	The communication and stability evaluation of amphibious spherical robots. <i>Microsystem Technologies</i> , <b>2019</b> , 25, 2625-2636	1.7	5
268	A cooperation of catheters and guidewires-based novel remote-controlled vascular interventional robot. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 20	3.7	40
267	Design and performance evaluation of collision protection-based safety operation for a haptic robot-assisted catheter operating system. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 22	3.7	32
266	Study on real-time force feedback for a master-slave interventional surgical robotic system. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 37	3.7	23
265	Operating force information on-line acquisition of a novel slave manipulator for vascular interventional surgery. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 33	3.7	28
264	Operation evaluation in-human of a novel remote-controlled vascular interventional robot. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 34	3.7	36
263	Online measuring and evaluation of guidewire inserting resistance for robotic interventional surgery systems. <i>Microsystem Technologies</i> , <b>2018</b> , 24, 3467-3477	1.7	6
262	Design and performance evaluation of a haptic interface based on MR fluids for endovascular tele-surgery. <i>Microsystem Technologies</i> , <b>2018</b> , 24, 909-918	1.7	25
261	Design and evaluation of safety operation VR training system for robotic catheter surgery. <i>Medical and Biological Engineering and Computing</i> , <b>2018</b> , 56, 25-35	3.1	14
260	Development of a powered variable-stiffness exoskeleton device for elbow rehabilitation. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 64	3.7	24
259	Hybrid Locomotion Evaluation for a Novel Amphibious Spherical Robot. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 156	2.6	32
258	Study of the Operational Safety of a Vascular Interventional Surgical Robotic System. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	20

257	Development of Multiple Capsule Robots in Pipe. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	18
256	A marker-based contactless catheter-sensing method to detect surgeons' operations for catheterization training systems. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 76	3.7	8
255	Transverse microvibrations-based guide wires drag reduction evaluation for endovascular interventional application. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 69	3.7	5
254	Compensatory force measurement and multimodal force feedback for remote-controlled vascular interventional robot. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 74	3.7	25
253	A Real-Time Compressive Tracking System for Amphibious Spherical Robots. <i>Advances in Computational Intelligence and Robotics Book Series</i> , <b>2018</b> , 390-409	0.4	
252	Coordinative Motion-Based Bilateral Rehabilitation Training System with Exoskeleton and Haptic Devices for Biomedical Application. <i>Micromachines</i> , <b>2018</b> , 10,	3.3	10
251	Modeling and experimental evaluation of an improved amphibious robot with compact structure. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2018</b> , 51, 37-52	9.2	36
250	A Novel Bilateral Control Strategy for Master-slave Vascular Interventional Robots <b>2018</b> ,		1
249	Design of the Speech Control System for a Upper Limb Rehabilitation Robot Based on Wavelet De-noising <b>2018</b> ,		5
248	A novel VR-based simulator for the interventional surgical catheter and guidewire cooperation <b>2018</b> ,		2
247	Design of a Novel Wearable Power-assist Exoskeleton Device <b>2018</b> ,		1
246	Application of the Hybrid Algorithm in Path Planning of the Spherical Mobile Robot <b>2018</b> ,		1
245	Characteristic Evaluation of a Master-Slave Interventional Surgical Robot Control System <b>2018</b> ,		1
244	Adaptive Clamping Mechanism-based a Novel Slave Manipulator for Endovascular Catheterization <b>2018</b> ,		1
243	Rotary Encoder-based Position Transmission and Feedback of a Novel Robotic Catheter System for Endovascular Catheterization <b>2018</b> ,		1
242	Design of Wireless Mobile Environment Monitoring System Based on Spherical Amphibious Robots <b>2018</b> ,		1
241	Hydrodynamic Analysis of a Novel Thruster for Amphibious Sphere Robots <b>2018</b> ,		2
240	Platform Design for a Natatores-like Amphibious Robot <b>2018</b> ,		3

239	Design of A Novel Drug-delivery Module for Active Locomotive Intestinal Capsule Endoscopy <b>2018</b> ,		3
238	Structure Improvement and Stability for an Amphibious Spherical Robot <b>2018</b> ,		2
237	Development of a Chair Preventing Low Back Pain with Sitting Person Doing Hand Working at the Same Time <b>2018</b> ,		2
236	Performance Evaluation of a Magnetically Actuated Capsule Microrobotic System for Medical Applications. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	18
235	Characteristic Evaluation of the Mobile Acoustic Communication for Spherical Underwater Robots (SUR III) <b>2018</b> ,		1
234	A Novel Master-slave Robotic System with Close Loop Control for Vascular Interventional Surgery <b>2018</b> ,		1
233	Magnetorheological Fluids Actuated Haptic-Based Teleoperated Catheter Operating System. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	21
232	A tensor-mass method-based vascular model and its performance evaluation for interventional surgery virtual reality simulator. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2018</b> , 14, e1946	2.9	8
231	Performance evaluation of a robot-assisted catheter operating system with haptic feedback. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 50	3.7	23
230	Development of a biomimetic underwater microrobot for a fatherBon robot system. <i>Microsystem Technologies</i> , <b>2017</b> , 23, 849-861	1.7	10
229	Integrating Compliant Actuator and Torque Limiter Mechanism for Safe Home-Based Upper-Limb Rehabilitation Device Design. <i>Journal of Medical and Biological Engineering</i> , <b>2017</b> , 37, 357-364	2.2	11
228	Design and characteristics evaluation of a novel spherical underwater robot. <i>Robotics and Autonomous Systems</i> , <b>2017</b> , 94, 61-74	3.5	40
227	Performance evaluation of a strain-gauge force sensor for a haptic robot-assisted catheter operating system. <i>Microsystem Technologies</i> , <b>2017</b> , 23, 5041-5050	1.7	35
226	Development of a novel wireless spiral capsule robot with modular structure <b>2017</b> ,		3
225	A hybrid propulsion device for the spherical underwater robot (SUR III) <b>2017</b> ,		3
224	A novel design of grasper for the interventional surgical robot <b>2017</b> ,		1
223	Conceptual design of a novel magnetically actuated hybrid microrobot <b>2017</b> ,		4
222	Haptic feedback in robot-assisted endovascular catheterization <b>2017</b> ,		4



221	Hydrodynamic analysis of water-jet thrusters for the spherical underwater robot (SUR III) <b>2017,</b>			1
220	Electromagnetic braking-based collision protection of a novel catheter manipulator <b>2017,</b>			6
219	Binocular vision-based underwater ranging methods <b>2017,</b>			3
218	Vision locating method based RGB-D camera for amphibious spherical robots <b>2017,</b>			2
217	A LabVIEW-based human-computer interaction system for the exoskeleton hand rehabilitation robot <b>2017,</b>			5
216	Kalman Filter-based navigation system for the Amphibious Spherical Robot <b>2017,</b>			6
215	<b>2017,</b>			3
214	Tensor-mass Model based real-time simulation of vessel deformation and force feedback for the interventional surgery training system <b>2017,</b>			3
213	Study on the tracking performance of the vascular interventional surgical robotic system based on the fuzzy-PID controller <b>2017,</b>			1
212	Design of Wireless Power Transmission System based on magnetic coupling resonant for the capsule endoscopy <b>2017,</b>			3
211	Design and implementation of self-tuning control method for the underwater spherical robot <b>2017,</b>			1
210	A system on chip-based real-time tracking system for amphibious spherical robots. <i>International Journal of Advanced Robotic Systems</i> , <b>2017</b> , 14, 172988141771655	1.4		10
209	Design and characteristics evaluation of a novel VR-based robot-assisted catheterization training system with force feedback for vascular interventional surgery. <i>Microsystem Technologies</i> , <b>2017</b> , 23, 3107-3116	1.7		7
208	Modal and fatigue analysis of critical components of an amphibious spherical robot. <i>Microsystem Technologies</i> , <b>2017</b> , 23, 2233-2247	1.7		15
207	A roller-skating/walking mode-based amphibious robot. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2017</b> , 44, 17-29	9.2		29
206	Design and characteristic evaluation of a novel amphibious spherical robot. <i>Microsystem Technologies</i> , <b>2017</b> , 23, 1999-2012	1.7		9
205	A virtual-reality simulator and force sensation combined catheter operation training system and its preliminary evaluation. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2017</b> , 13, e1769	2.9		29
204	Analysis of the elastic stress for the bifurcated region of blood vessel <b>2017,</b>			4

203	Toward cooperation of catheter and guidewire for remote-controlled vascular interventional robot <b>2017</b> ,			6
202	An underwater pipeline tracking system for amphibious spherical robots <b>2017</b> ,			2
201	A novel sEMG control-based variable stiffness exoskeleton <b>2017</b> ,			5
200	Cable-driven interventional operation robot with Stribeck friction feedforward compensation <b>2017</b> ,			2
199	A novel path planning algorithm for the vascular interventional surgical robotic doctor training system <b>2017</b> ,			2
198	A novel vibrating device for the interventional surgical Robotic System <b>2017</b> ,			2
197	<b>2017</b> ,			2
196	Visual Detection and Tracking System for a Spherical Amphibious Robot. <i>Sensors</i> , <b>2017</b> , 17,	3.8		27
195	Performance Evaluation of a Novel Propulsion System for the Spherical Underwater Robot (SURIII). <i>Applied Sciences (Switzerland)</i> , <b>2017</b> , 7, 1196	2.6		27
194	Preliminary mechanical analysis of an improved amphibious spherical father robot. <i>Microsystem Technologies</i> , <b>2016</b> , 22, 2051-2066	1.7		20
193	Development and Evaluation of Novel Magnetic Actuated Microrobot with Spiral Motion Using Electromagnetic Actuation System. <i>Journal of Medical and Biological Engineering</i> , <b>2016</b> , 36, 506-514	2.2		18
192	Communication between Spherical Underwater Robots based on the acoustic communication methods <b>2016</b> ,			8
191	Study on a multi-robot cooperative wireless communication control system for the spherical amphibious robot <b>2016</b> ,			2
190	A novel variable stiffness actuator-based exoskeleton device for home rehabilitation <b>2016</b> ,			5
189	Dynamic gait analysis of a multi-functional robot with bionic springy legs <b>2016</b> ,			1
188	Design and principle analysis for electromagnetic brake clamping mechanism of a novel slave manipulator <b>2016</b> ,			5
187	Movement characteristics evaluation of the spherical robot actuated by the magnetic field for medical applications <b>2016</b> ,			2
186	Design and evaluation of a novel guidewire navigation robot <b>2016</b> ,			17

185	MR fluid interface of endovascular catheterization based on haptic sensation <b>2016,</b>		5
184	Design and performance evaluation of a novel master manipulator for the robot-assist catheter system <b>2016,</b>		4
183	An adaptive compressive tracking algorithm for amphibious spherical robots <b>2016,</b>		4
182	Design and performance evaluation of a biomimetic microrobot for the fatherEon underwater intervention robotic system. <i>Microsystem Technologies</i> , <b>2016</b> , 22, 831-840	1.7	18
181	Muscle Strength Assessment System Using sEMG-Based Force Prediction Method for Wrist Joint. <i>Journal of Medical and Biological Engineering</i> , <b>2016</b> , 36, 121-131	2.2	30
180	Design and experimental evaluation of a teleoperated haptic robotEassisted catheter operating system. <i>Journal of Intelligent Material Systems and Structures</i> , <b>2016</b> , 27, 3-16	2.3	55
179	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2016</b> , 21, 1043-1054	5.5	65
178	A Novel tele-operation controller for wireless microrobots in-pipe with hybrid motion. <i>Robotics and Autonomous Systems</i> , <b>2016</b> , 76, 68-79	3.5	11
177	Design and performance evaluation of a master controller for endovascular catheterization. <i>International Journal of Computer Assisted Radiology and Surgery</i> , <b>2016</b> , 11, 119-31	3.9	7
176	Design and evaluation of quadruped gaits for amphibious spherical robots <b>2016,</b>		2
175	An improved VR training system for vascular interventional surgery <b>2016,</b>		2
174	Study on motion following with feedback force disturbance in interventional surgical robot system <b>2016,</b>		4
173	Kinematic analysis of the catheter used in the robot-assisted catheter operating system for Vascular Interventional Surgery <b>2016,</b>		3
172	High precise haptic device for the robotic catheter navigation system <b>2016,</b>		8
171	Design and performance evaluation of a novel robotic catheter system for vascular interventional surgery. <i>Microsystem Technologies</i> , <b>2016</b> , 22, 2167-2176	1.7	21
170	Leader-follower cooperative movement method for multiple amphibious spherical robots <b>2016,</b>		1
169	An EMG-based muscle force evaluation method using approximate entropy <b>2016,</b>		1
168	Design and kinematic simulation of a novel exoskeleton rehabilitation hand robot <b>2016,</b>		4

167	Force feedback-based robotic catheter training system for the vascular interventional surgery <b>2016</b>		2
166	Design and characteristics evaluation of a novel teleoperated robotic catheterization system with force feedback for vascular interventional surgery. <i>Biomedical Microdevices</i> , <b>2016</b> , 18, 76	3.7	36
165	A virtual reality-based method of decreasing transmission time of visual feedback for a tele-operative robotic catheter operating system. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2016</b> , 12, 32-45	2.9	21
164	A novel hybrid microrobot using rotational magnetic field for medical applications. <i>Biomedical Microdevices</i> , <b>2015</b> , 17, 31	3.7	28
163	A Kinect-based real-time compressive tracking prototype system for amphibious spherical robots. <i>Sensors</i> , <b>2015</b> , 15, 8232-52	3.8	59
162	A Multifunctional Underwater Biomimetic Microrobot. <i>Springer Tracts in Mechanical Engineering</i> , <b>2015</b> , 285-313	0.3	1
161	Comparison of sEMG-Based Feature Extraction and Motion Classification Methods for Upper-Limb Movement. <i>Sensors</i> , <b>2015</b> , 15, 9022-38	3.8	45
160	Virtual prototyping technology-based dynamics analysis for an amphibious spherical robot <b>2015</b> ,		3
159	Electromyography-Based Quantitative Representation Method for Upper-Limb Elbow Joint Angle in Sagittal Plane. <i>Journal of Medical and Biological Engineering</i> , <b>2015</b> , 35, 165-177	2.2	26
158	<b>2015</b> ,		1
157	A low-power SoC-based moving target detection system for amphibious spherical robots <b>2015</b> ,		7
156	Fuzzy PID algorithm-based motion control for the spherical amphibious robot <b>2015</b> ,		10
155	Performance evaluation of a magnetic microrobot driven by rotational magnetic field <b>2015</b> ,		3
154	Design and performance evaluation of an amphibious spherical robot. <i>Robotics and Autonomous Systems</i> , <b>2015</b> , 64, 21-34	3.5	49
153	Performance evaluation of force feedback for the improved vascular interventional robotic system <b>2015</b> ,		1
152	Prediction of interaction force using EMG for characteristic evaluation of touch and push motions <b>2015</b> ,		2
151	Push force feedback for a kind of robotic catheter navigation system <b>2015</b> ,		4
150	Force model-based haptic master console design for teleoperated minimally invasive surgery application <b>2015</b> ,		5

149	A multidimensional information monitoring method for a novel robotic vascular interventional system <b>2015,</b>		6
148	<b>2015,</b>		2
147	Characteristic Evaluation of a Shrouded Propeller Mechanism for a Magnetic Actuated Microrobot. <i>Micromachines</i> , <b>2015</b> , 6, 1272-1288	3.3	20
146	Design of a novel telerehabilitation system with a force-sensing mechanism. <i>Sensors</i> , <b>2015</b> , 15, 11511-273.8		39
145	Laser mouse-based master-slave catheter operating system for minimally invasive surgery <b>2015,</b>		4
144	Performance evaluation of the wireless micro robot in the fluid <b>2015,</b>		3
143	Vascular elasticity determined mass-spring model for virtual reality simulators. <i>International Journal of Mechatronics and Automation</i> , <b>2015</b> , 5, 1	0.2	30
142	Soft actuator for hand rehabilitation <b>2015,</b>		4
141	Study on haptic feedback functions for an interventional surgical robot system <b>2015,</b>		5
140	A proximal push force-based force feedback algorithm for robot-assisted vascular intervention surgery <b>2015,</b>		1
139	Characteristic analysis in water for an amphibious spherical robot <b>2015,</b>		1
138	Preliminary concept of a novel spherical underwater robot. <i>International Journal of Mechatronics and Automation</i> , <b>2015</b> , 5, 11	0.2	28
137	Kinematic analysis on land of an amphibious spherical robot system <b>2015,</b>		3
136	Characteristics evaluation of a biomimetic microrobot for a Father-son Underwater Intervention Robotic system <b>2015,</b>		4
135	A novel force feedback interventional surgery robotic system <b>2015,</b>		12
134	OFDM-based micro-signal communication method for the spherical amphibious underwater vehicle <b>2015,</b>		2
133	Numerical simulation and hydrodynamic analysis of an amphibious spherical robot <b>2015,</b>		2
132	Mechatronic System and Experiments of a Spherical Underwater Robot: SUR-II. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , <b>2015</b> , 80, 325-340	2.9	25

131	Kinematics analysis of the catheter for a novel VR robotic catheter system <b>2014</b> ,		2
130	Feedback force evaluation for a novel robotic catheter navigation system <b>2014</b> ,		8
129	A haptic interface design for a VR-based unskilled doctor training system in Vascular Interventional Surgery <b>2014</b> ,		3
128	The underwater motion simulation of a spherical amphibious robot <b>2014</b> ,		2
127	Preliminary concept and kinematics simulation of a novel Spherical Underwater Robot <b>2014</b> ,		14
126	Development of Wireless Endoscope with Symmetrical Motion Characteristics. <i>International Journal of Advanced Robotic Systems</i> , <b>2014</b> , 11, 148	1.4	7
125	A kinematic modeling of an amphibious spherical robot system <b>2014</b> ,		3
124	Bio-inspired robot launching system for a mother-son underwater manipulation task <b>2014</b> ,		9
123	Development of a symmetrical spiral wireless microrobot in pipe for biomedical applications <b>2014</b> ,		4
122	A roller skating mode-based amphibious spherical robot <b>2014</b> ,		2
121	Performance evaluation of the novel grasper for a robotic catheter navigation system <b>2014</b> ,		6
120	A haptic catheter operating system using magnetorheological fluids <b>2014</b> ,		2
119	Characteristic analysis on land for an amphibious spherical robot <b>2014</b> ,		5
118	A control system of the wireless microrobots in pipe <b>2014</b> ,		5
117	Elasticity analysis of Mass-spring model-based virtual reality vascular simulator <b>2014</b> ,		3
116	Study on the comparison of three different upper limb motion recognition methods <b>2014</b> ,		4
115	Development of a novel wireless microrobot in-pipe with hybrid motion <b>2014</b> ,		3
114	Evaluating performance of a novel developed robotic catheter manipulating system. <i>Journal of Micro-Bio Robotics</i> , <b>2013</b> , 8, 133-143	1.4	20

113	Development of an Amphibious Turtle-Inspired Spherical Mother Robot. <i>Journal of Bionic Engineering</i> , <b>2013</b> , 10, 446-455	2.7	51
112	Underwater performance evaluation of an amphibious spherical mother robot <b>2013</b> ,		6
111	sEMG signal and hill model based continuous prediction for hand grasping motion <b>2013</b> ,		2
110	Characteristics evaluation of a pressure sensitive rubber-based tactile sensor <b>2013</b> ,		1
109	IPMC actuator-based a movable robotic venus flytrap <b>2013</b> ,		6
108	Characteristic evaluation of a wireless capsule microrobotic system <b>2013</b> ,		8
107	ANSYS FLUENT-based modeling and hydrodynamic analysis for a spherical underwater robot <b>2013</b> ,		19
106	Electrical system design of a spherical underwater robot (SUR-II) <b>2013</b> ,		9
105	A novel type of catheter sidewall tactile sensor array for vascular interventional surgery <b>2013</b> ,		5
104	Passive and active attitude stabilization method for the spherical underwater robot (SUR-II) <b>2013</b> ,		9
103	Development of a new kind of magnetic field model for wireless microrobots <b>2013</b> ,		3
102	A multifunctional underwater microrobot for mother-son underwater robot system <b>2013</b> ,		6
101	Motion characteristic evaluation of a catheter operating system using an optical mouse sensor <b>2013</b> ,		5
100	Performance evaluation on land of an amphibious spherical mother robot in different terrains <b>2013</b> ,		8
99	Performance evaluation on land of an amphibious spherical mother robot <b>2013</b> ,		2
98	Finger joint continuous interpretation based on sEMG signals and muscular model <b>2013</b> ,		4
97	Development of a doctor's finger motion measurement device for a remote catheter operating system <b>2013</b> ,		1
96	Performance evaluation of the wireless microrobot in pipe with symmetrical spiral structure <b>2013</b> ,		1

95	A novel master-slave robotic catheter system for Vascular Interventional Surgery <b>2013</b> ,		4
94	Modeling of muscle forces around the elbow in the RITS <b>2013</b> ,		1
93	Skating motion analysis of the amphibious quadruped mother robot <b>2013</b> ,		9
92	A force acquisition method in a catheter navigation system <b>2013</b> ,		4
91	3D Modelling of a Vectored Water Jet-Based Multi-Propeller Propulsion System for a Spherical Underwater Robot. <i>International Journal of Advanced Robotic Systems</i> , <b>2013</b> , 10, 80	1.4	19
90	Development of a Lobster-Inspired Underwater Microrobot. <i>International Journal of Advanced Robotic Systems</i> , <b>2013</b> , 10, 44	1.4	27
89	A Novel Robot-Assisted Catheter Surgery System with Force Feedback <b>2013</b> , 175-190		3
88	A neural network-based self-tuning PID controller of an autonomous underwater vehicle <b>2012</b> ,		9
87	Development of an amphibious mother spherical robot used as the carrier for underwater microrobots <b>2012</b> ,		26
86	Development of a Spherical Underwater Robot Equipped with Multiple Vectored Water-Jet-Based Thrusters. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , <b>2012</b> , 67, 307-321	2.9	77
85	A smart actuator-based underwater microrobot with two motion attitudes <b>2012</b> ,		11
84	Controller design for a robotic catheter teleoperation system <b>2012</b> ,		6
83	Study on impedance generation using an exoskeleton device for upper-limb rehabilitation <b>2012</b> ,		2
82	Construction of 3D vessel model of the VR Robotic Catheter System <b>2012</b> ,		1
81	Development of a Venus flytrap-inspired robotic flytrap <b>2012</b> ,		9
80	Modeling and experiments of IPMC actuators for the position precision of underwater legged microrobots <b>2012</b> ,		9
79	Internet-based robotic catheter surgery system System design and performance evaluation <b>2012</b> ,		4
78	A biomimetic underwater microrobot with multifunctional locomotion. <i>Robotics and Autonomous Systems</i> , <b>2012</b> , 60, 1472-1483	3.5	47



77	Design of a master-slave rehabilitation system using self-tuning fuzzy PI controller <b>2012,</b>	6
76	Development of a Novel Robotic Catheter Manipulating System with Fuzzy PID Control. <i>International Journal of Intelligent Mechatronics and Robotics</i> , <b>2012</b> , 2, 58-77	17
75	An electromyography-driven central pattern generator model for robotic control application <b>2012,</b>	1
74	Modeling and position control of IPMC actuators for the underwater biomimetic microrobot <b>2012,</b>	2
73	Internet based remote control for a robotic catheter manipulating system <b>2012,</b>	5
72	Development of a 3D blood vessel model for the simulation of the minimally invasive surgery <b>2012,</b>	2
71	A method of decreasing time delay for a tele-surgery system <b>2012,</b>	6
70	ULERD-based active training for upper limb rehabilitation <b>2012,</b>	7
69	Study on recognition of upper limb motion pattern using surface EMG signals for bilateral rehabilitation <b>2012,</b>	3
68	Development of a novel underwater biomimetic microrobot with two motion attitudes <b>2012,</b>	6
67	Analysis and improvement of the water-jet propulsion system of a spherical underwater robot <b>2012</b>	17
66	A surface EMG signals-based real-time continuous recognition for the upper limb multi-motion <b>2012,</b>	7
65	Characteristics evaluation of the vertical motion of a spherical underwater robot <b>2012,</b>	10
64	Control of the wireless microrobot with multi-DOFs locomotion for medical applications <b>2012,</b>	11
63	Recognition of motion of human upper limb using sEMG in real time: Towards bilateral rehabilitation <b>2012,</b>	7
62	A wireless microrobot with two motions for medical applications <b>2012,</b>	12
61	Adaptive fuzzy sliding mode control for spherical underwater robots <b>2012,</b>	11
60	Development of force sensing systems for a novel robotic catheter system <b>2012,</b>	5

59	Design and kinematic analysis of an amphibious spherical robot <b>2012,</b>	21
58	Development of a kind of robotic catheter manipulation system <b>2011,</b>	25
57	A novel butterfly-inspired underwater microrobot with pectoral fins <b>2011,</b>	12
56	Feasibility study for a novel robotic catheter system <b>2011,</b>	7
55	Radio communication for the ICPF-based robotic fish <b>2011,</b>	5
54	Development of a novel robot-assisted catheter system with force feedback <b>2011,</b>	6
53	Development of a potential system for upper limb rehabilitation training based on virtual reality <b>2011,</b>	3
52	Fluid Dynamic Analysis of an ICPF Actuated Fish-like Underwater Microrobot with 3 DOF <b>2011,</b>	3
51	Dynamic mechanics and electric field analysis of an ICPF actuated fish-like underwater microrobot <b>2011,</b>	7
50	Design and simulation of a MRAC controller for a human-scale tele-operating system <b>2011,</b>	3
49	Design of a wireless hybrid in-pipe microrobot with 3 DOFs <b>2011,</b>	8
48	Development of an Infrared Sensor-based Wireless Intelligent Fish-like Underwater Microrobot <b>2010,</b>	7
47	A novel PDMS diaphragm micropump based on ICPF actuator <b>2010,</b>	7
46	A force display method for a novel catheter operating system <b>2010,</b>	6
45	Danger avoiding method based-a novel catheter operating system <b>2010,</b>	4
44	Mechanism and control of a spiral type microrobot <b>2010,</b>	3
43	Control modeling of a micro-manipulator for human scale tele-operation system <b>2010,</b>	1
42	Development of an Infrared Ray controlled fish-like underwater microrobot <b>2010,</b>	13

41	A novel type of catheter operating system with force monitoring <b>2010</b> ,		3
40	A novel multifunctional underwater microrobot <b>2010</b> ,		18
39	Development of a catheter operating system for medical applications <b>2010</b> ,		1
38	Development and experiments of a novel multifunctional underwater microrobot <b>2010</b> ,		6
37	Motion control of an underwater microrobot system in 3-D space <b>2010</b> ,		5
36	A novel jellyfish-like biomimetic microrobot <b>2010</b> ,		6
35	A novel motor function training assisted system for upper limbs rehabilitation <b>2009</b> ,		11
34	Path-planning optimization of underwater microrobots in 3-D space by PSO Approach <b>2009</b> ,		5
33	Paddling type of microrobot in pipe <b>2009</b> ,		1
32	Experimental Identification and Active Control of Configuration Dependent Linkage Vibration in a Planar Parallel Robot. <i>IEEE Transactions on Control Systems Technology</i> , <b>2009</b> , 17, 960-969	4.8	7
31	The development of a new type of compound peristaltic micropump <b>2009</b> ,		2
30	IPMC actuator-based an underwater microrobot with 8 legs <b>2008</b> ,		17
29	A novel type of peristaltic micropump for biomedical applications <b>2008</b> ,		3
28	VR-based a novel active rehabilitation system for upper limbs <b>2008</b> ,		10
27	Motion planning of underwater multi-microrobot system <b>2008</b> ,		1
26	A Novel Type of Micropump Using Solenoid Actuator for Biomedical Applications. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , <b>2007</b> ,		3
25	Development of the novel types of biomimetic microrobots driven by external magnetic field <b>2007</b> ,		1
24	Development of an underwater biomimetic microrobot with compact structure and flexible locomotion. <i>Microsystem Technologies</i> , <b>2007</b> , 13, 883-890	1.7	8

23	Infrared Motion Guidance and Obstacle Avoidance of an ICPF Actuated Underwater Microrobot <b>2007,</b>	3
22	A New Type of Jellyfish-Like Microrobot <b>2007,</b>	10
21	Development of Pulseless Output Micropump Using Magnet-Solenoid Actuator <b>2007,</b>	2
20	A Force Sensors-based Catheter Operating System <b>2007,</b>	2
19	Kinematic Trajectory Analysis of an ICPF Actuated Octopod Underwater Microrobot <b>2007,</b>	2
18	Mechanism and Control of a Novel Type Microrobot for Biomedical Application. <i>Proceedings - IEEE International Conference on Robotics and Automation, 2007,</i>	8
17	A NOVEL SELF-ASSISTED REHABILITATION SYSTEM FOR THE UPPER LIMBS BASED ON VIRTUAL REALITY. <i>International Journal of Information Acquisition, 2006, 03, 247-258</i>	2
16	A Test-Bed for Visual Servo Control of Artificial Muscle Micro-Robot with Parallel Architecture <b>2006</b>	3
15	A Novel Underwater Crablike Microrobot <b>2006,</b>	5
14	A Tripodic Biomimetic Underwater Microrobots Utilizing ICPF Actuators <b>2006,</b>	6
13	Design and Experimental Results of A Tripodic Biomimetic Microrobot with 5 DOFs <b>2006,</b>	5
12	Characteristics Analysis of a Biomimetic Underwater Walking Microrobot <b>2006,</b>	4
11	Realization of a Catheter Driving Mechanism with Micro tactile sensor for Intravascular Neurosurgery <b>2006,</b>	19
10	Design and Control of a Novel Type of Microrobot Moving in Pipe <b>2006,</b>	8
9	A Prototype of Underwater Microrobot System with An Artificial Swim Bladder <b>2006,</b>	2
8	A novel type of underwater crawling microrobot <b>2005,</b>	9
7	A new type of fish-like underwater microrobot. <i>IEEE/ASME Transactions on Mechatronics, 2003, 8, 136-144.</i>	246
6	Developments of two novel types of underwater crawling microrobots	13

5	Fish-like underwater microrobot with multi DOF	4
4	Vibration suppression control of flexible arms using sliding mode method	1
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