Gastone Ciuti

List of Publications by Year
in descending order

96	3,199	159585 30	161849 54
papers	citations	h-index	g-index

98	98	98	2904
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Capsule Endoscopy: From Current Achievements to Open Challenges. IEEE Reviews in Biomedical Engineering, 2011, 4, 59-72.	18.0	421
2	Robotic magnetic steering and locomotion of capsule endoscope for diagnostic and surgical endoluminal procedures. Robotica, 2010, 28, 199-207.	1.9	242
3	Visual-Based Defect Detection and Classification Approaches for Industrial Applicationsâ€"A SURVEY. Sensors, 2020, 20, 1459.	3.8	182
4	Feedback Control of Soft Robot Actuators via Commercial Flex Bend Sensors. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1881-1888.	5.8	158
5	MEMS Sensor Technologies for Human Centred Applications in Healthcare, Physical Activities, Safety and Environmental Sensing: A Review on Research Activities in Italy. Sensors, 2015, 15, 6441-6468.	3.8	125
6	Robotic versus manual control in magnetic steering of an endoscopic capsule. Endoscopy, 2010, 42, 148-152.	1.8	121
7	Frontiers of robotic endoscopic capsules: a review. Journal of Micro-Bio Robotics, 2016, 11, 1-18.	2.1	116
8	Optical and Electromagnetic Tracking Systems for Biomedical Applications: A Critical Review on Potentialities and Limitations. IEEE Reviews in Biomedical Engineering, 2020, 13, 212-232.	18.0	87
9	Magnetic air capsule robotic system: proof of concept of a novel approach for painless colonoscopy. Surgical Endoscopy and Other Interventional Techniques, 2012, 26, 1238-1246.	2.4	80
10	Localization strategies for robotic endoscopic capsules: a review. Expert Review of Medical Devices, 2019, 16, 381-403.	2.8	73
11	A discrete-time localization method for capsule endoscopy based on on-board magnetic sensing. Measurement Science and Technology, 2012, 23, 015701.	2.6	72
12	Flexible and capsule endoscopy for screening, diagnosis and treatment. Expert Review of Medical Devices, 2014, 11, 649-666.	2.8	72
13	Design and development of a soft robotic gripper for manipulation in minimally invasive surgery: a proof of concept. Meccanica, 2015, 50, 2855-2863.	2.0	71
14	Searching for the Perfect Wave: The Effect of Radiofrequency Electromagnetic Fields on Cells. International Journal of Molecular Sciences, 2014, 15, 5366-5387.	4.1	66
15	Frontiers of Robotic Colonoscopy: A Comprehensive Review of Robotic Colonoscopes and Technologies. Journal of Clinical Medicine, 2020, 9, 1648.	2.4	63
16	A Soft Pneumatic Inchworm Double balloon (SPID) for colonoscopy. Scientific Reports, 2019, 9, 11109.	3.3	58
17	Modular soft mechatronic manipulator for minimally invasive surgery (MIS): overall architecture and development of a fully integrated soft module. Meccanica, 2015, 50, 2865-2878.	2.0	57
18	Magnetically driven medical devices: a review. Expert Review of Medical Devices, 2015, 12, 737-752.	2.8	56

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19	Towards a Computed-Aided Diagnosis System in Colonoscopy: Automatic Polyp Segmentation Using Convolution Neural Networks. Journal of Medical Robotics Research, 2018, 03, 1840002.	1.2	52
20	Fully convolutional neural networks for polyp segmentation in colonoscopy. Proceedings of SPIE, 2017, , .	0.8	50
21	Experimental assessment of a novel robotically-driven endoscopic capsule compared to traditional colonoscopy. Digestive and Liver Disease, 2013, 45, 657-662.	0.9	49
22	Musculoskeletal injuries in gastrointestinal endoscopists: a systematic review. Expert Review of Gastroenterology and Hepatology, 2017, 11, 939-947.	3.0	46
23	Frontiers of Robotic Gastroscopy: A Comprehensive Review of Robotic Gastroscopes and Technologies. Cancers, 2020, 12, 2775.	3.7	43
24	Frictional resistance model for tissue-capsule endoscope sliding contact in the gastrointestinal tract. Tribology International, 2016, 102, 472-484.	5.9	42
25	Magnetic propulsion and ultrasound tracking of endovascular devices. Journal of Robotic Surgery, 2012, 6, 5-12.	1.8	41
26	Soft Robotic Manipulator for Improving Dexterity in Minimally Invasive Surgery. Surgical Innovation, 2018, 25, 69-76.	0.9	40
27	Magnetically-driven medical robots: An analytical magnetic model for endoscopic capsules design. Journal of Magnetism and Magnetic Materials, 2018, 452, 278-287.	2.3	40
28	Wireless Insufflation of the Gastrointestinal Tract. IEEE Transactions on Biomedical Engineering, 2013, 60, 1225-1233.	4.2	38
29	Gastrointestinal diagnosis using non-white light imaging capsule endoscopy. Nature Reviews Gastroenterology and Hepatology, 2019, 16, 429-447.	17.8	35
30	Robotic-Assisted Colonoscopy Platform with a Magnetically-Actuated Soft-Tethered Capsule. Cancers, 2020, 12, 2485.	3.7	35
31	A New Concept for Magnetic Capsule Colonoscopy Based on an Electromagnetic System. International Journal of Advanced Robotic Systems, 2015, 12, 25.	2.1	31
32	Intra-operative monocular 3D reconstruction for image-guided navigation in active locomotion capsule endoscopy. , 2012, , .		27
33	Electromagnetic Control System for Capsule Navigation: Novel Concept for Magnetic Capsule Maneuvering and Preliminary Study. Journal of Medical and Biological Engineering, 2015, 35, 428-436.	1.8	27
34	Deep Endoscopic Visual Measurements. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 2211-2219.	6.3	27
35	Effects of Sleep Deprivation on Surgeons Dexterity. Frontiers in Neurology, 2019, 10, 595.	2.4	24
36	Is a Shorter Bar an Effective Solution to Avoid Bar Dislocation in a Nuss Procedure?. Annals of Thoracic Surgery, 2014, 97, 1022-1027.	1.3	23

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37	Training Simulators for Gastrointestinal Endoscopy: Current and Future Perspectives. Cancers, 2021, 13, 1427.	3.7	23
38	Magnetic link design for a robotic laparoscopic camera. Journal of Applied Physics, 2010, 107, .	2.5	20
39	A Comparative Evaluation of Control Interfaces for a Robotic-Aided Endoscopic Capsule Platform. IEEE Transactions on Robotics, 2012, 28, 534-538.	10.3	20
40	Vision-based haptic feedback for capsule endoscopy navigation: a proof of concept. Journal of Micro-Bio Robotics, 2016, 11, 35-45.	2.1	19
41	Motion compensation with skin contact control for high intensity focused ultrasound surgery in moving organs. Physics in Medicine and Biology, 2018, 63, 035017.	3.0	19
42	A wireless module for vibratory motor control and inertial sensing in capsule endoscopy. Sensors and Actuators A: Physical, 2012, 186, 270-276.	4.1	18
43	A structured light laser probe for gastrointestinal polyp size measurement: a preliminary comparative study. Endoscopy International Open, 2018, 06, E602-E609.	1.8	18
44	The relevance of signal timing in human-robot collaborative manipulation. Science Robotics, 2021, 6, eabg1308.	17.6	17
45	An innovative robotic platform for magnetically-driven painless colonoscopy. Annals of Translational Medicine, 2017, 5, 421-421.	1.7	16
46	A Novel Device for Measuring Forces in Endoluminal Procedures. International Journal of Advanced Robotic Systems, 2015, 12, 116.	2.1	12
47	Inductive-Based Wireless Power Recharging System for an Innovative Endoscopic Capsule. Energies, 2015, 8, 10315-10334.	3.1	12
48	An artificial neural network architecture for non-parametric visual odometry in wireless capsule endoscopy. Measurement Science and Technology, 2017, 28, 094005.	2.6	11
49	Visual Localization of Wireless Capsule Endoscopes Aided by Artificial Neural Networks. , 2017, , .		11
50	Smart sensorized polymeric skin for safe robot collision and environmental interaction. , 2015, , .		10
51	Endoscopic single-image size measurements. Measurement Science and Technology, 2020, 31, 074010.	2.6	10
52	Toward tetherless insufflation of the GI Tract. , 2010, 2010, 1946-9.		9
53	Vision and inertial-based image mapping for capsule endoscopy. , 2015, , .		9
54	Tactile Decoding of Edge Orientation With Artificial Cuneate Neurons in Dynamic Conditions. Frontiers in Neurorobotics, 2019, 13, 44.	2.8	9

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55	Novel Capacitive-Based Sensor Technology for Augmented Proximity Detection. IEEE Sensors Journal, 2020, 20, 6624-6633.	4.7	9
56	An Autonomous Robotic Platform for Manipulation and Inspection of Metallic Surfaces in Industry 4.0. IEEE Transactions on Automation Science and Engineering, 2022, 19, 1691-1706.	5.2	8
57	HuMOVE: A Low-invasive Wearable Monitoring Platform in Sexual Medicine. Urology, 2014, 84, 976-981.	1.0	7
58	A computer-assisted robotic platform for vascular procedures exploiting 3D US-based tracking. Computer Assisted Surgery, 2016, 21, 63-79.	1.3	7
59	A novel magnetic-driven tissue retraction device for minimally invasive surgery. Minimally Invasive Therapy and Allied Technologies, 2017, 26, 7-14.	1.2	7
60	A Novel Capacitive Measurement Device for Longitudinal Monitoring of Bone Fracture Healing. Sensors, 2021, 21, 6694.	3.8	7
61	A Wireless Module for Vibratory Motor Control and Inertial Sensing in Capsule Endoscopy. Procedia Engineering, 2011, 25, 92-95.	1.2	6
62	An innovative platform for treatment of vascular obstructions: System design and preliminary results. , 2012, , .		6
63	Scoliosis and Pectus Excavatum in Adolescents: Does the Nuss Procedure Affect the Scoliotic Curvature?. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2016, 26, 734-739.	1.0	6
64	Hybrid 6-DoF Magnetic Localization for Robotic Capsule Endoscopes Compatible With High-Grade Magnetic Field Navigation. IEEE Access, 2022, 10, 4414-4430.	4.2	6
65	A computer-assisted robotic platform for Focused Ultrasound Surgery: Assessment of high intensity focused ultrasound delivery. , 2015, 2015, 1311-4.		5
66	Analytical magnetic model applied to endoscopic robots design: A ready-to-use implementation and a case of study. , 2016, , .		5
67	Robotic validation of visual odometry for wireless capsule endoscopy. , 2016, , .		5
68	The role of computed tomography data in the design of a robotic magnetically-guided endoscopic platform. Advanced Robotics, 2018, 32, 443-456.	1.8	5
69	Endoscopic Tactile Capsule for Non-Polypoid Colorectal Tumour Detection. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 64-73.	3.2	5
70	A Sensorized Nuss Bar for Patient-Specific Treatment of Pectus Excavatum. Sensors, 2014, 14, 18096-18113.	3.8	4
71	Ultrasound-based tracking strategy for endoluminal devices in cardiovascular surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2015, 11, 319-330.	2.3	4
72	A Mechatronic Platform for Computer Aided Detection of Nodules in Anatomopathological Analyses via Stiffness and Ultrasound Measurements. Sensors, 2019, 19, 2512.	3.8	4

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73	Endoluminal Motion Recognition of a Magnetically-Guided Capsule Endoscope Based on Capsule-Tissue Interaction Force. Sensors, 2021, 21, 2395.	3.8	4
74	Robotic endoscopic capsule for closed-loop force-based control and safety strategies. , 2017, , .		3
75	Endoscopic tactile instrument for remote tissue palpation in colonoscopic procedures. , 2017, , .		3
76	A compensation strategy for accurate orientation of a tethered robotic capsule endoscope. , 2017, , .		3
77	Assessing Pupil-linked Changes in Locus Coeruleus-mediated Arousal Elicited by Trigeminal Stimulation. Journal of Visualized Experiments, 2019, , .	0.3	3
78	Tether-colon interaction model and tribological characterization for front-wheel driven colonoscopic devices. Tribology International, 2021, 156, 106814.	5.9	3
79	Flipping food during grilling tasks, a dataset of utensils kinematics and dynamics, food pose and subject gaze. Scientific Data, 2022, 9, 5.	5.3	3
80	Intraoperative bowel cleansing tool in active locomotion capsule endoscopy. , 2013, 2013, 4843-6.		2
81	Sensorized Orthosis for Non-Operative Treatment of $Pectus~Carinatum$ in Pediatric Patients. IEEE Transactions on Medical Robotics and Bionics, 2019, 1, 115-121.	3.2	2
82	Light source position calibration method for photometric stereo in capsule endoscopy. Advanced Robotics, 2020, 34, 789-801.	1.8	2
83	EXPERIMENTAL ASSESSMENT OF INTACT COLON DEFORMATION UNDER LOCAL FORCES APPLIED BY MAGNETIC CAPSULE ENDOSCOPES. Journal of Mechanics in Medicine and Biology, 2020, 20, 2050041.	0.7	2
84	Towards Foodservice Robotics: A Taxonomy of Actions of Foodservice Workers and a Critical Review of Supportive Technology. IEEE Transactions on Automation Science and Engineering, 2022, 19, 1820-1858.	5.2	2
85	Metal/polymer composite Nuss bar for minimally invasive bar removal after Pectus Excavatum treatment: FEM simulations. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1530-1540.	2.1	1
86	Trajectory analysis of endoscopic capsule images: A feasibility study. , 2016, , .		1
87	Analytical magnetic model for medical endoscopic robots: A ready-to-use implementation with permanent magnets. , 2016, , .		1
88	A novel soft device for assisting magnetically-driven soft-tethered capsule navigation. , 2018, , .		1
89	Real time position control of industrial robot over ethernet based communication framework. AIP Conference Proceedings, 2019, , .	0.4	1
90	Intrinsically Distributed Probabilistic Algorithm for Humanâ€“Robot Distance Computation in Collision Avoidance Strategies. Electronics (Switzerland), 2020, 9, 548.	3.1	1

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91	Intraoperative-technologies advancements in automated cancer detection: a narrative review. , 2021, , .		1
92	Analytical Magnetic Model towards Compact Design of Magnetically-driven Capsule Robot. , 2018, , .		0
93	RhinoFit: A Bionic Nasal Device for Mitigating Post-Operative Complications After Rhinosurgery. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 297-305.	3.2	0
94	A Biomechanical Model of the Shoulder Including Acromioclavicular Joint Ligaments: Preliminary Results. Biosystems and Biorobotics, 2019, , 642-645.	0.3	0
95	Small bowel to closest human body surface distance calculation through a custom-made software using CT-based datasets. , 2021, 2021, 2903-2909.		0
96	Colonoscopy robots. , 2022, , 31-59.		0