Tom Carlson

List of Publications by Year
in descending order

39 papers	1,512 citations	1040056 9 h-index	996975 15 g-index
40 all docs	40 docs citations	40 times ranked	1496 citing authors

#	Article	IF	Citations
1	Brain-Controlled Wheelchairs: A Robotic Architecture. IEEE Robotics and Automation Magazine, 2013, 20, 65-73.	2.0	337
2	Collaborative Control for a Robotic Wheelchair: Evaluation of Performance, Attention, and Workload. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 876-888.	5.0	194
3	Towards Independence: A BCI Telepresence Robot for People With Severe Motor Disabilities. Proceedings of the IEEE, 2015, 103, 969-982.	21.3	150
4	A Topology of Shared Control Systems—Finding Common Ground in Diversity. IEEE Transactions on Human-Machine Systems, 2018, 48, 509-525.	3.5	134
5	Transferring brain–computer interfaces beyond the laboratory: Successful application control for motor-disabled users. Artificial Intelligence in Medicine, 2013, 59, 121-132.	6.5	131
6	Brain-controlled telepresence robot by motor-disabled people. , 2011, 2011, 4227-30.		85
7	Human-wheelchair collaboration through prediction of intention and adaptive assistance. , 2008, , .		70
8	Statically vs dynamically balanced gait: Analysis of a robotic exoskeleton compared with a human. , 2015, 2015, 6728-31.		63
9	Quantifying the human-robot interaction forces between a lower limb exoskeleton and healthy users. , 2016, 2016, 586-589.		37
10	Increasing robotic wheelchair safety with collaborative control: Evidence from secondary task experiments. , 2010, , .		30
11	Power Wheelchair Navigation Assistance Using Wearable Vibrotactile Haptics. IEEE Transactions on Haptics, 2020, 13, 52-58.	2.7	30
12	Probabilistic vs linear blending approaches to shared control for wheelchair driving. , 2017, 2017, 835-840.		25
13	A hybrid BCI for enhanced control of a telepresence robot. , 2013, 2013, 3097-100.		24
14	The birth of the brain-controlled wheelchair. , 2012, , .		20
15	Design of a robotic wheelchair with a motor imagery based brain-computer interface. , 2013, , .		20
16	Muscular activity and physical interaction forces during lower limb exoskeleton use. Healthcare Technology Letters, 2016, 3, 273-279.	3.3	18
17	Comparing shared control approaches for alternative interfaces: A wheelchair simulator experiment. , 2017, , .		18
18	Online modulation of the level of assistance in shared control systems. , 2012, , .		17

#	ARTICLE	IF	CITATIONS
19	Improving Skills and Perception in Robot Navigation by an Augmented Virtuality Assistance System. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 76, 255-266.	3.4	11
20	Introduction to the Special Issue on Shared Control: Applications. Journal of Human-robot Interaction, 2015, 4, 1.	2.0	10
21	A shared control solution for safe assisted power wheelchair navigation in an environment consisting of negative obstacles: a proof of concept. , 2019, , .		9
22	From HRI to CRI: Crowd Robot Interactionâ€"Understanding the Effect of Robots on Crowd Motion. International Journal of Social Robotics, 2022, 14, 631-643.	4.6	9
23	Computer analysis of individual cataract surgery segments in the operating room. Eye, 2019, 33, 313-319.	2.1	8
24	Understanding Interactions for Smart Wheelchair Navigation in Crowds. , 2022, , .		8
25	Evaluation of proportional and discrete shared control paradigms for low resolution user inputs. , 2011, , .		7
26	Making the most of context-awareness in brain-computer interfaces. , 2013, , .		6
27	Probabilistic Shared Control for a Smart Wheelchair: A Stochastic Model-Based Framework. , 2019, , .		6
28	A Stochastic Control Strategy for Safely Driving a Powered Wheelchair. IFAC-PapersOnLine, 2020, 53, 10148-10153.	0.9	6
29	Interaction and evaluation of an augmented virtuality assistance system for teleoperated robots. , 2012, , .		5
30	A hierarchical design for shared-control wheelchair navigation in dynamic environments. , 2020, , .		5
31	A rule-based assistive control algorithm for safe navigation for a powered wheelchair. , 2020, , .		4
32	MoRe-T2 (mobility research trajectory tracker): validation and application. Journal of Rehabilitation and Assistive Technologies Engineering, 2016, 3, 205566831667055.	0.9	3
33	Towards a Wearable Wheelchair Monitor: Classification of Push Style Based on Inertial Sensors at Multiple Upper Limb Locations. , 2018, , .		3
34	Assistive Robotic Technologies for Next-Generation Smart Wheelchairs: Codesign and Modularity to Improve Usersâ€™ Quality of Life. IEEE Robotics and Automation Magazine, 2023, 30, 24-35.	2.0	3
35	Emulated haptic shared control for brain-computer interfaces improves human-robot cooperation. , 2020, , .		2
36	Model-based sensor fusion and filtering for localization of a semi-autonomous robotic vehicle. , 2021, , .		2

#	Article	IF	Citations
37	VIBROfocus: Design of a focal vibro-tactile robotic-assistive system for spasticity rehabilitation. , 2017, 2017, 783-788.		1
38	Towards Everyday Shared Control of Lower Limb Exoskeletons. Biosystems and Biorobotics, 2017, , 133-135.	0.3	0
39	An â€˜Ethical Black Boxâ€™, Learning From Disagreement in Shared Control Systems. , 2021, , .		0