# Tom Carlson

List of Publications by Year
in descending order



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|---|---|---|---|
| 39 papers | 1,512 citations | 1170033 9 h-index | 1113639 15 g-index |
| 40 all docs | 40 docs citations | 40 times ranked | 1689 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | 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. | 2.2 | 3 |
| 2 | From HRI to CRI: Crowd Robot Interactionâ€”Understanding the Effect of Robots on Crowd Motion. International Journal of Social Robotics, 2022, 14, 631-643. | 3.1 | 9 |
| 3 | Understanding Interactions for Smart Wheelchair Navigation in Crowds. , 2022, , . | | 8 |
| 4 | Model-based sensor fusion and filtering for localization of a semi-autonomous robotic vehicle. , 2021, , . | | 2 |
| 5 | An â€˜Ethical Black Boxâ€™, Learning From Disagreement in Shared Control Systems. , 2021, , . | | 0 |
| 6 | Power Wheelchair Navigation Assistance Using Wearable Vibrotactile Haptics. IEEE Transactions on Haptics, 2020, 13, 52-58. | 1.8 | 30 |
| 7 | Emulated haptic shared control for brain-computer interfaces improves human-robot cooperation. , 2020, , . | | 2 |
| 8 | A hierarchical design for shared-control wheelchair navigation in dynamic environments. , 2020, , . | | 5 |
| 9 | A rule-based assistive control algorithm for safe navigation for a powered wheelchair. , 2020, , . | | 4 |
| 10 | A Stochastic Control Strategy for Safely Driving a Powered Wheelchair. IFAC-PapersOnLine, 2020, 53, 10148-10153. | 0.5 | 6 |
| 11 | A shared control solution for safe assisted power wheelchair navigation in an environment consisting of negative obstacles: a proof of concept. , 2019, , . | | 9 |
| 12 | Probabilistic Shared Control for a Smart Wheelchair: A Stochastic Model-Based Framework. , 2019, , . | | 6 |
| 13 | Computer analysis of individual cataract surgery segments in the operating room. Eye, 2019, 33, 313-319. | 1.1 | 8 |
| 14 | Towards a Wearable Wheelchair Monitor: Classification of Push Style Based on Inertial Sensors at Multiple Upper Limb Locations. , 2018, , . | | 3 |
| 15 | A Topology of Shared Control Systemsâ€”Finding Common Ground in Diversity. IEEE Transactions on Human-Machine Systems, 2018, 48, 509-525. | 2.5 | 134 |
| 16 | VIBROfocus: Design of a focal vibro-tactile robotic-assistive system for spasticity rehabilitation. , 2017, 2017, 783-788. | | 1 |
| 17 | Towards Everyday Shared Control of Lower Limb Exoskeletons. Biosystems and Biorobotics, 2017, , 133-135. | 0.2 | 0 |
| 18 | Probabilistic vs linear blending approaches to shared control for wheelchair driving. , 2017, 2017, 835-840. | | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Comparing shared control approaches for alternative interfaces: A wheelchair simulator experiment. , 2017, , . | | 18 |
| 20 | MoRe-T2 (mobility research trajectory tracker): validation and application. Journal of Rehabilitation and Assistive Technologies Engineering, 2016, 3, 205566831667055. | 0.6 | 3 |
| 21 | Muscular activity and physical interaction forces during lower limb exoskeleton use. Healthcare Technology Letters, 2016, 3, 273-279. | 1.9 | 18 |
| 22 | Quantifying the human-robot interaction forces between a lower limb exoskeleton and healthy users. , 2016, 2016, 586-589. | | 37 |
| 23 | Towards Independence: A BCI Telepresence Robot for People With Severe Motor Disabilities. Proceedings of the IEEE, 2015, 103, 969-982. | 16.4 | 150 |
| 24 | Statically vs dynamically balanced gait: Analysis of a robotic exoskeleton compared with a human. , 2015, 2015, 6728-31. | | 63 |
| 25 | Introduction to the Special Issue on Shared Control: Applications. Journal of Human-robot Interaction, 2015, 4, 1. | 2.0 | 10 |
| 26 | 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. | 2.0 | 11 |
| 27 | Design of a robotic wheelchair with a motor imagery based brain-computer interface. , 2013, , . | | 20 |
| 28 | Transferring brainâ€“computer interfaces beyond the laboratory: Successful application control for motor-disabled users. Artificial Intelligence in Medicine, 2013, 59, 121-132. | 3.8 | 131 |
| 29 | Brain-Controlled Wheelchairs: A Robotic Architecture. IEEE Robotics and Automation Magazine, 2013, 20, 65-73. | 2.2 | 337 |
| 30 | Making the most of context-awareness in brain-computer interfaces. , 2013, , . | | 6 |
| 31 | A hybrid BCI for enhanced control of a telepresence robot. , 2013, 2013, 3097-100. | | 24 |
| 32 | The birth of the brain-controlled wheelchair. , 2012, , . | | 20 |
| 33 | Online modulation of the level of assistance in shared control systems. , 2012, , . | | 17 |
| 34 | Collaborative Control for a Robotic Wheelchair: Evaluation of Performance, Attention, and Workload. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 876-888. | 5.5 | 194 |
| 35 | Interaction and evaluation of an augmented virtuality assistance system for teleoperated robots. , 2012, , . | | 5 |
| 36 | Brain-controlled telepresence robot by motor-disabled people. , 2011, 2011, 4227-30. | | 85 |

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|---|---|---|---|
| 37 | Evaluation of proportional and discrete shared control paradigms for low resolution user inputs. , 2011, , . | | 7 |
| 38 | Increasing robotic wheelchair safety with collaborative control: Evidence from secondary task experiments. , 2010, , . | | 30 |
| 39 | Human-wheelchair collaboration through prediction of intention and adaptive assistance. , 2008, , . | | 70 |