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PUBLICATIONS

Journal papers (peer reviewed)

1. "Design and Implementation of a Virtual Reality System and Its Application to Training Medical First Responders," S. Stansfield, D. Shawver, A. Sobel, M. Prasad and L. Tapia, Presence: Teleoperators and Virtual Environments, MIT Press Journals, Vol. 9, No. 6, Dec. 2000, pp. 524-556.
2. "Mapping Algorithm for Real-Time Control of an Avatar Using Eight Sensors," S. Semwal, R. Hightower, and S. Stansfield, Presence: Teleoperators and Virtual Environments, Vol. 7, No. 1, February 1998, pp. 1-21.
3. "Exploring the Application of Virtual Reality to Remote Robot Operations," S. Stansfield, N. Miner, and C. Cooke, The International Journal of Virtual Reality, Vol. 2, No. 2, Summer 1996, pp. 1-8.
4. "Virtual Environments for Architectural Walkthrough: Three Applications," S. Stansfield, The International Journal of Virtual Reality, Vol. 2, No. 3, Spring 1996, pp. 14-16.
5. "Mission Visualization for Planning and Training," S. Stansfield, D. Shawver, D. Rogers, R. Hightower, IEEE Computer Graphics and Applications, Sept. 1995, pp. 12-14.
6. "A Distributed Virtual Reality Simulation System for Situational Training," S. A. Stansfield, Presence: Teleoperators and Virtual Environments," Vol. 3, No 4, Fall 1994, pp. 360-366.
7. "Experiments in Robotic Sensori-Motor Control During Grasp," S. A. Stansfield, IEEE Transactions on Systems, Man, and Cybernetics, Vol. 23, No. 3, May/June, 1993, pp. 891-896.
8. "Haptic Perception with an Articulated, Sensate Robot Hand," S. A. Stansfield, Robotica, Vol 10, 1992, pp. 497-508.
9. "Robotic Grasping of Unknown Objects: A Knowledge-Based Approach," S. A. Stansfield, International Journal of Robotics Research, Vol 10:4, 1991, pp. 314-326.
10. "A Robotic Perceptual System Utilizing Passive Vision and Active Touch," S. A. Stansfield, International Journal of Robotics Research, Vol 7:6, 1988, pp. 138-161.
11. "ANGY: A Rule-Based Expert System for Automatic Segmentation of Coronary Vessels from Digital Subtracted Angiograms," S. A. Stansfield, IEEE Transactions on Pattern Analysis and Machine Intelligence, March 1986, pp. 188-199.

Conference papers (peer reviewed)

1. Dennis, C. W., Stansfield, S.M., Becker, M., Baker, K., Davies, E., Lemelin, L., and Larin, H.M. The WeeBot: Feasibility of a mobility option for infants. Third International Symposium on Quality of Life Technology, Toronto, ON, Canada. June 6-7, 2011.
2. Smith M.E., Dennis C., Stansfield S., Larin H. Infants Control of a Robotic Mobility Device. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Annual Conference. Red Rock Spa, Las Vegas, NV. June 26-30, 2010.
3. "Interactive Virtual Client for Teaching Occupational Therapy Evaluative Processes." S. Stansfield, M. Kane, T. Butkiewicz, and E. Suma. Proceedings of the ACM SIGACCESS Conference on Computers & Accessibility, October 9-12, 2005, Baltimore, Maryland.
4. "An Introductory VR Course for Undergraduates Incorporating Foundation, Experience and Capstone." S. Stansfield, Proceedings of the ACM SIGCSE Conference, 23-27 February 2005, St. Louis, MO, pp 197-200.
5. "Emotional and Performance attributes of a VR Game: A Study of Children," S. Stansfield, C. Dennis, and E. Suma, Proceedings of Medicine Meets Virtual Reality 13, Jan. 2005, Long Beach, CA, James Westwood, et al. (Eds), IOS Press, pp. 515-518.
6. "MediSim: A Prototype VR System for Training Medical First Responders," S. Stansfield, D. Shawver, and A. Sobel, Proceedings of the Virtual Reality Annual International Symposium, Atlanta, GA, March, 1998, pp. 198-205.

7. "Closed Form and Geometric Algorithms for Real -Time Control of an Avatar," S. Semwal, R. Hightower, and S. Stansfield, Proceedings of the Virtual Reality Annual International Symposium, Santa Clara, CA, April, 1996, 177-184.
8. "An Application of Shared Virtual Reality to Situational Training," S. Stansfield, N. Miner, D. Shawver and D. Rogers, Proceedings of the Virtual Reality Annual International Symposium, Triangle Research Park, NC., March, 1995, pp. 156-161.
9. "An Interactive Virtual Reality Simulation System for Robot Control and Operator Training," N. E. Miner and S. A. Stansfield, Proceedings of the IEEE Robotics and Automation Conference, San Diego, CA, May, 1994, pp. 1428-1435.
10. "Interactive Graphical Model Building Using Telepresence and Virtual Reality," C. A. Cooke and S. A. Stansfield, Proceedings of the IEEE Robotics and Automation Conference, San Diego, CA, May, 1994, pp. 1436-1440.
11. "A Haptic System for a Multifingered Hand," S. A. Stansfield, Proceedings of the IEEE Robotics and Automation Conference, April, 1991, pp. 658-664.
12. "Knowledge-based Robotic Grasping," S. A. Stansfield, Proceedings of the IEEE Robotics and Automation Conference, Cincinnati, OH, May, 1990, pp. 1270-1275.
13. "Reasoning About Grasping," S. A. Stansfield, Proceedings of the American Association for Artificial Intelligence Conference, St. Paul, MN, August, 1988, pp. 768-773.
14. "Representing Generic Objects for Exploration and Identification," S. A. Stansfield, Proceedings of the IEEE Robotics and Automation Conference, Philadelphia, PA, April, 1988, pp. 1090-1095.
15. "A Model for Robotic Perception," S. A. Stansfield, Proceedings of the Conference on Artificial Intelligence Applications, San Diego, CA, March, 1988, pp. 248-253.
16. "Visually-aided Tactile Exploration," S. A. Stansfield, Proceedings of the IEEE Conference on Robotics and Automation, Raleigh, N. C., March 1987, pp. 1487-1492.
17. "Primitives, Features, and Exploratory Procedures: Building a Robot Tactile Perception System," S. A. Stansfield, Proceedings of the IEEE Conference on Robotics and Automation, San Francisco, April 1986, pp. 1274-1279
18. "ANGY: A Rule-Based Expert System for Identifying and Isolating Coronary Vessels in Digital Angiograms," S. A. Stansfield, Proceedings of the First Conference on Artificial Intelligence Applications, Denver, December 1984, pp. 606-609.

Conference Posters (peer reviewed)

1. Larin, H., Dennis, C., Stansfield, S. Robotic Mobility and Infant Capability. 16th International Congress of the World Confederation for Physical Therapy. Amsterdam, Holland. June 20-23, 2011.
2. Dennis, C.W., Stansfield, S., Larin, H.M. Feasibility of a mobile robot with alternative control system for a young child with cerebral palsy. RESNA Annual Conference. Toronto, ON, Canada. June 5-8, 2011.
3. Smith, M.D., Stansfield, S.M., and Dennis, C. D. (2011). Tots on Bots. Video Proceedings of the 6th ACM IEEE International Conference on Human-Robotic Interaction, Lausanne, Switzerland.

Selected Additional Publications

1. "BioSimMER: A Virtual Reality Simulator for Training First Responders in a BW Scenario," S. Stansfield, A. Sobel, D. Shawver, Proceedings of the 1998 Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, MD, November, 1998
2. "Creating Virtual Humans for Simulation-based Training and Planning," S. Stansfield, and A. Sobel, Proceedings of the 1998 Computer-generated Forces and Behavior Representation Conference, Orlando, FL, May, 1998, pp. 219-227
3. "Applications of Virtual Reality to Nuclear Safeguards", S. Stansfield, Proceedings of the Joint ESARDA/INMM Workshop on Science and Modern Technology for Safeguards, Albuquerque, NM, Sept. 1998
4. "Using Virtual Reality to Train and Plan Response Actions to Acts of Terrorism," S. Stansfield and D. Shawver, Proceedings of the SPIE Conference on Enabling Technologies for Law Enforcement and Security, Boston, MA, 18-22 November 1996, pp. 93-100.

5. "Real-time 3D Visualization of Volumetric Video Motion Sensor Data," J. Carlson, S. Stansfield and D. Shawver, Proceedings of the SPIE Conference on Enabling Technologies for Law Enforcement and Security, Boston, MA, 18-22 November 1996
6. "Applications of Virtual Reality to Nuclear Safeguards and Non-Proliferation," S. Stansfield, Proceedings of the Joint ESARDA/INMM Workshop on Science and Modern Technology for Safeguards," Arona, Italy, 26-30 October, 1996, pp. 147-150.
7. "Techniques for Active Embodiment of Participants in Virtual Environments," R. Hightower and S. Stansfield, Proceedings of the 1996 IMAGE Conference, Scottsdale, AZ, 23-28 June 1996, pp. 78-87.
8. "VR/IS Lab Virtual Actor Research Overview," D. Shawver and S. Stansfield, Proceedings of the Workshop on Simulation and Interaction in Virtual Environments, Iowa City, July 1995, pp. 120-125.
9. "A Computer-based Training System Combining Virtual Reality and Multimedia," S. A. Stansfield, Proceedings of the NASA Conference on Intelligent Computer-aided Training and Virtual Environment Technologies, Houston, TX, May 5-7, 1993, pp. 60-64.
10. "Connectionist and Neural Net Implementations of a Robotic Grasp Generator," S. A. Stansfield, Proceedings of the SPIE Conference on Applications of Artificial Intelligence, April, 1992, pp. 375-388.