

STEVEN VOZAR

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Graduate Student Research Assistant in Mechanical Engineering
University of Michigan, Ann Arbor, MI

RESEARCH INTERESTS

Human-robot interaction; robot user interfaces; unmanned ground vehicles (UGVs), UGV reliability, UGV teleoperation; augmented reality systems; mobile robot simulation; control of robot swarms.

EDUCATION

University of Michigan Ph.D., Mechanical Engineering Graduate Student Research Assistant, Ground Robotics Reliability Center	Ann Arbor, MI June 2009 – Present
University of Michigan M.S.E., Mechanical Engineering Thesis: Optical System for the Determination of Flame Retardant Effectiveness	Ann Arbor, MI Dec. 2009
University of Michigan B.S.E., Mechanical Engineering, <i>Summa Cum Laude</i> (GPA 3.94/4.00)	Ann Arbor, MI April 2008

EMPLOYMENT

University of Michigan (Ann Arbor, MI) Graduate Student Research Assistant, Ground Robotics Reliability Center	June 2009 – Present
Absolute Nano (Wixom, MI) Co-Founder and Partner	April 2008 – Present
Human Interface Technology Laboratory (Christchurch, New Zealand) Intern	July 2010 – Aug. 2010
University of Michigan (Ann Arbor, MI) Graduate Student Research Assistant, Mechanical Engineering Department	Aug. 2008 – June 2009
Ingenieurgesellschaft Auto und Verkehr GmbH (Berlin, Germany) Engineering Praktikant (Intern)	May 2008 – Aug. 2008
University of Michigan (Ann Arbor, MI) Undergraduate Research Assistant, Mechanical Engineering Department	May 2007 – April 2008
HandyLab, Inc. (Ann Arbor, MI) Engineering Intern	July 2007 – Aug. 2007
STM Power, Inc. (Ann Arbor, MI) Engineering and Program Management Intern	Feb. 2006 – Aug. 2006
Case Western Reserve University (Cleveland, OH) Undergraduate Research Assistant, Physics Department	Oct. 2004 – Dec. 2005

AWARDS

University of Michigan College of Engineering Distinguished Leadership Award	2011
R&D100 Award (Spin-Grower Automated Layer-by-Layer Assembly System)	2009
International Federation of Automotive Engineering Societies Travel Bursary Award	2008
Weiss-Partin Scholarship	2008
University of Michigan College of Engineering Class of 1934E Scholarship	2006-2008
Case Western Reserve University President's Scholarship	2004-2006
Eagle Scout, Boy Scouts of America	2002

PUBLICATIONS

3. S. Vozar, D. M. Tilbury, "Augmented reality user interface for mobile ground robots with manipulator arms," *Proceedings of the SPIE*, Volume 7878, pp. 78780M-78780M-9, 2011.
2. S. Vozar, Y. Poh, T. Serbowicz, M. Bachner, P. Podsiadlo, M. Qin, E. Verploegen, N. Kotov, and A.J. Hart, "Automated spin-assisted layer-by-layer assembly of nanocomposites," *Review of Scientific Instruments*, vol. 80, no. 2, pp. 023903-5, Feb. 2009. Also published in *Virtual Journal of Nanoscience and Nanotechnology*.
1. M. Beach, S. Vozar, S. Filipi, A. Shmakov, V. Shvartsberg, O. Korobeinichev, T. Morgan, T. Hu, and V. Sick, "Screening approaches for gas-phase activity of flame retardants," *Proceedings of the Combustion Institute*, vol. 32, no. 2, pp. 2625-2632, 2009.

PRESENTATIONS

3. S. Vozar (speaker), D. M. Tilbury, "Augmented reality user interface for mobile ground robots with manipulator arms," presented at the Intelligent Robots and Computer Vision XXVIII: Algorithms and Techniques, San Francisco Airport, California, USA, Jan. 2011. San Francisco.
2. M. Beach (speaker), M. Leugers, T. Morgan, T. Hu, S. Vozar, S. Filipi, V. Sick, A. Shmakov, V. Shvartsberg, and O. Korobeinichev. "Application of Combustion Science Diagnostic Techniques to an Improved Understanding of Flame Retardant Gas-Phase Activity." in 5th Fire & Polymer Symposium; Spring 2008 ACS National Meeting & Exposition 2008. New Orleans, LA: ACS.
1. M. Beach (speaker), S. Vozar, S. Filipi, V. Sick, A. Shmakov, V. Shvartsberg, O. Korobeinichev, T. Morgan, M. Leugers, and T. Hu. "Application of combustion science diagnostic techniques to an improved understanding of flame retardant gas-phase activity." in Spring 2008 ACS Meeting, Polymeric Materials: Science & Engineering. 2008.

ACADEMIC AND PROFESSIONAL ACTIVITIES

Technical Session Chair: Power, Control, and Mechatronics; University of Michigan Engineering Graduate Symposium, 2010.

Graduate Student Representative, University of Michigan College of Engineering Curriculum Committee, 2010-Present

Graduate Student Representative, University of Michigan Mechanical Engineering Planning Committee, 2010-Present

Student Representative, University of Michigan Mechanical Engineering Graduate Program Committee, 2010-Present

Corresponding Secretary, University of Michigan Mechanical Engineering Graduate Council, 2009-Present

Mechanical Engineering Representative, University of Michigan Graduate Student Advisory Council, 2009-Present

Member, University of Michigan Mechanical Engineering Student Leadership Board, 2008-Present

President, Pi Tau Sigma (PTS) Michigan Pi Rho Chapter, 2008-2009, during which Michigan hosted the 2009 PTS National Convention.

Professional Society Memberships:

Institute of Electrical and Electronics Engineers

Institute of Electrical and Electronics Engineers Robotics and Automation Society

Pi Tau Sigma, National Mechanical Engineering Honor Society

Tau Beta Pi, National Engineering Honor Society