
BIOGRAPHICAL SKETCH

Name & Address:

Devin R. Berg

Engineering & Technology Department

University of Wisconsin – Stout

807 3rd St. East

Menomonie, WI 54751

POSITION TITLE

Assistant Professor

EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
University of Wisconsin Madison, WI	B.S.	2008	Mechanical Engineering
University of Minnesota Minneapolis, MN	M.S.	2011	Mechanical Engineering
University of Minnesota Minneapolis, MN	Ph.D.	2013	Mechanical Engineering

University of Wisconsin – Stout

Assistant Professor, Engineering & Technology Department

Menomonie, WI

(8/12-Present)

University of St. Thomas

Adjunct Faculty, Department of Mechanical Engineering

St. Paul, MN

(1/12-5/12)

3M Science and Technology Fellowship

Science and Technology Fellowship Program

Minneapolis, MN

(9/08-5/12)

Products – closely related

Berg, D.R., “Experiences with Inquiry-Based Learning in an Introductory Mechanics Course.” Proceedings of the ASEE North Midwest Section Conference, Fargo, ND, 2013.

Capaldi, F. and **Berg, D.R.**, “Outcomes of Using an Infinitely Explorable Online Learning System.” Proceedings of the ASEE Annual Conference, Atlanta, GA, 2013.

Berg, D.R., Harder, L.A., and Erdman, A.G., “Generating Interest in Technology and Medical Devices Through an Interactive Educational Game.” Proceedings of the ASEE Annual Conference, San Antonio, TX, 2012.

Berg, D.R., Carlson, A., Durfee, W.K., Sweet, R.M., and Reihsen, T., “Low-Cost, Take-Home, Beating Heart Simulator for Health-Care Education.” Proceedings of Medicine Meets Virtual Reality 18, Newport Beach, CA, 2011.

J. Schmidt, **D. R. Berg**, L. Ploeg, and H. L. Ploeg. “Precision, Repeatability and Accuracy of Optotrak Optical Motion Tracking Systems.” *International Journal of Experimental and Computational Biomechanics*, 1(1):114-127, 2009.

Other Significant Products

Berg, D.R., Li, P.Y., and Erdman, A.G., “Achieving Dexterous Manipulation for Minimally Invasive Surgical Robots Through the Use of Hydraulics.” Proceedings of the ASME Dynamic Systems and Control Conference, Fort Lauderdale, FL, 2012.

Berg, D.R., Kinney, T.P., Li, P.Y., and Erdman, A.G., “Determination of Surgical Robot Tool Force Requirements Through Tissue Manipulation and Suture Force Measurement.” Proceedings of the Design of Medical Devices Conference, Minneapolis, MN, 2011.

Z. G. Liu, **D. R. Berg**, V. N. Vasys, M. E. Dettmann, B. Zielinska, and J. J. Schauer. “Analysis of C1, C2, and C10 through C33 particle-phase and semi-volatile organic compound emissions from heavy-duty diesel engines.” *Atmospheric Environment*, 44(8):1108-1115, 2010.

Z. G. Liu, **D. R. Berg**, T. A. Swor, and J. J. Schauer. “Comparative Analysis on the Effects of Diesel Particulate Filter and Selective Catalytic Reduction Systems on a Wide Spectrum of Chemical Species Emissions.” *Environmental Science and Technology*, 42(16):6080-6085, 2008.

Z. G. Liu, **D. R. Berg**, and J. J. Schauer. “Effects of a Zeolite-Selective Catalytic Reduction System on Comprehensive Emissions from a Heavy-Duty Diesel Engine.” *Journal of the Air & Waste Management Association*, 58(10), 2008.

Synergistic Activities

Pioneering Implementation of New Educational Software: Early adopter of a new educational software for engineering courses to better serve students of diverse learning styles.

Pursuing Open Access Education: Building a collaborative online repository for engineering information and sample problems geared towards engineering students.

Contributing as External Reviewer: Reviewer of conference proceedings for the 2014 ASEE Annual Conference and the 2012 ASME Dynamic Systems and Control Conference.

Developing Hands-On Classroom Tools: Design and fabrication of in-class tools for demonstrating engineering concepts consistent with the concept of experiential learning.

Promoting K-12 Outreach: Exploring new methods for generating interest in engineering and technology among K-12 aged school children.

Collaborators and Other Affiliations

Collaborators: Franco Capaldi (Merrimack College), Lucas Harder (Heart Leaflet Technologies), Andrew Carlson (Novo Engineering), Timothy Kinney (Ridgeview Medical Center), Jordan Nadeau (University of Minnesota – Twin Cities), Adam Gladen (University of Minnesota – Twin Cities), Jerry Liu (Cummins Emission Solutions), James Schauer (University of Wisconsin – Madison), Heidi-Lynn Ploeg (University of Wisconsin – Madison), Jill Schmidt (University of Wisconsin – Milwaukee), Ulla Hägglblom (Tampere University of Applied Sciences), Anneli Kakko (Jyväskylä University of Applied Sciences)

Graduate Advisors: Perry Y. Li, U. Minnesota (MS and PhD) and Arthur G. Erdman (PhD), U. Minnesota
