**2013-14 Contributions by Rose-Hulman Faculty to Furthering Math, Science, and Engineering Education**

**Frontiers in Education, October 2014, Madrid**

(only RHIT authors listed – see [conference program](http://fie2014.org/sites/fie2014.org/files/fie-2014_program_v10.pdf)for complete citation information)  
Richard Layton: Your Data Deserve Better Than Pies and Bars: An R Graphics Workshop for the Timid.  
Richard Layton and Rich House: Promoting More Effective Communication of Stories in the Data.  
Richard Layton: A Disciplinary Comparison of Trajectories of U.S.A. Engineering Students.

**IEEE International Professional Communication Conference, October 2014, Pittsburgh**

(only RHIT authors listed – see [conference program](http://pcs.ieee.org/files/2014/11/IPCC2014-Program-v.07-2014.11.09-final-low-res.pdf)for complete citation information)  
Rich House, Jessica Livingston, Richard Layton, and Sean Moseley: Engineering Ethos in Environmental Public Policy Deliberation (Lufkin Award for Best Paper).  
Julia Williams and Rich House: What Makes Teamwork Work?: Development of an Observation Protocol Rubric for Evaluating Teamwork.

**American Society for Engineering Education, June 2014, Indianapolis**

(only RHIT authors listed – see abstract linked below for complete citation information)  
Renee Rogge, Glen Livesay, Jameel Ahmed, Bill Kline, Rob Bunch, and Mike Wollowski: [The Innovation Canvas as a Teaching Tool in Capstone Design: A Reverse-Engineering Case Study](https://peer.asee.org/the-innovation-canvas-as-a-teaching-tool-in-capstone-design-a-reverse-engineering-case-study)   
KC Dee, Glen Livesay, and Julia Williams: [Preparing Your Teaching Portfolio](https://peer.asee.org/preparing-your-teaching-portfolio)   
Anneliese Watt, Scott Kirkpatrick, and Ashley Bernal: [What's in the Soup? Auto-ethnograhies from an Engineer, a Physicist, and an English Professor Regarding a Successful Multidisciplinary Grand Challenge Program](https://peer.asee.org/what-s-in-the-soup-auto-ethnograhies-from-an-engineer-a-physicist-and-an-english-professor-regarding-a-successful-multidisciplinary-grand-challenge-program)   
Scott Kirkpatrick, Maarij Syed, and Richard Liptak: [Optical Filter Design, Fabrication and Characterization; A Multifaceted Approach to Project- Based Curriculum](https://peer.asee.org/optical-filter-design-fabrication-and-characterization-a-multifaceted-approach-to-project-based-curriculum)   
Kevin Sutterer: [Geology for Civil and Environmental Engineers – Setting Priorities, Developing Desk Study Skills, and Case Study-Based Learning](https://peer.asee.org/geology-for-civil-and-environmental-engineers-setting-priorities-developing-desk-study-skills-and-case-study-based-learning)   
Ella Ingram, Rich House, Steve Chenoweth, KC Dee, Jameel Ahmed, Julia Williams, Craig Downing, and Don Richards: [From Faculty to Change Agent: Lessons Learned in the Development and Implementation of a Change Workshop](https://peer.asee.org/from-faculty-to-change-agent-lessons-learned-in-the-development-and-implementation-of-a-change-workshop)   
Tina Hudson: [Developing Critical Thinking Skills in a Mixed-Signal Test and Product Engineering Course](https://peer.asee.org/developing-critical-thinking-skills-in-a-mixed-signal-test-and-product-engineering-course)   
Julia Williams, Caroline Carvill, Rich House, Jessica Livingston, and Anneliese Watt: [The Grandest Challenge: Models for Communication Development in Technical Contexts](https://peer.asee.org/the-grandest-challenge-models-for-communication-development-in-technical-contexts)   
Jim Hanson, John Aidoo, Kyle Kershaw, Matt Lovell: [Structural Engineering Practicum: The First Course in a Master’s Program](https://peer.asee.org/structural-engineering-practicum-the-first-course-in-a-master-s-program)   
Paul Leisher, Scott Kirkpatrick, Richard Liptak, Sergio Granieri, and Rob Bunch: [An Activity in Design for Manufacturability – Concept Generation Through Volume Production in Less Than Three Hours](https://peer.asee.org/an-activity-in-design-for-manufacturability-concept-generation-through-volume-production-in-less-than-three-hours)   
Jameel Ahmed, Renee Rogge, Bill Kline, Rob Bunch, Tom Mason, Mike Wollowski, and Glen Livesay: [The Innovation Canvas: An Instructor's Guide](https://peer.asee.org/the-innovation-canvas-an-instructor-s-guide)   
Mario Simoni, Bill Schindel, Xiaoyan Mu, Dan Moore, and Wayne Padgett: [Practicing and Assessing Formal Systems Competencies in ECE Senior Design](https://peer.asee.org/practicing-and-assessing-formal-systems-competencies-in-ece-senior-design)   
Pat Carlson: [Using Engineering to Address the Common Core Standards: A Four-Week Workshop (Curriculum Exchange)](https://peer.asee.org/using-engineering-to-address-the-common-core-standards-a-four-week-workshop-curriculum-exchange)   
Sean Moseley: [Honest Expert Solutions Towards Cognitive Apprenticeship](https://peer.asee.org/honest-expert-solutions-towards-cognitive-apprenticeship)   
Eva Andrijcic, Bill Schindel, and Craig Downing: [Preparing Our Graduates to be More Effective Leaders In a World of Systems-Oriented Risk](https://peer.asee.org/preparing-our-graduates-to-be-more-effective-leaders-in-a-world-of-systems-oriented-risk)   
Ashley Bernal, Scott Kirkpatrick, and Bill Schindel: [Introducing Systems Competencies During Undergraduate Design](https://peer.asee.org/introducing-systems-competencies-during-undergraduate-design)   
Bill Kline and Bill Schindel: [The Innovation Competencies - Implications for Educating the Engineer of the Future](https://peer.asee.org/the-innovation-competencies-implications-for-educating-the-engineer-of-the-future)   
Dan Kawano: [Video-based Online Learning: The Other Side of the Looking Glass](https://peer.asee.org/video-based-online-learning-the-other-side-of-the-looking-glass)   
Matt Lovell: [Transfer Effects of Challenge-Based Lessons in an Undergraduate Dynamics Course](https://peer.asee.org/transfer-effects-of-challenge-based-lessons-in-an-undergraduate-dynamics-course)   
Jennifer Mueller Price: [Get Your Feet Wet! – Experiential Learning Activities along Lost Creek](https://peer.asee.org/get-your-feet-wet-experiential-learning-activities-along-lost-creek)   
Mario Simoni: [Data Mining to Help Determine Sources of Difficulty in an Introductory Continuous-Time Signals and Systems Course](https://peer.asee.org/data-mining-to-help-determine-sources-of-difficulty-in-an-introductory-continuous-time-signals-and-systems-course)   
John Mirth: [Capstone Project in a Freshman Solid Modeling Course](https://peer.asee.org/capstone-project-in-a-freshman-solid-modeling-course)   
Carlotta Berry: [Women of Color Engineering Faculty: An Examination of the Experiences and the Numbers](https://peer.asee.org/women-of-color-engineering-faculty-an-examination-of-the-experiences-and-the-numbers)   
Ella Ingram: [Graduate Student and Faculty Member: An Exploration of Career and Personal Decisions](https://peer.asee.org/graduate-student-and-faculty-member-an-exploration-of-career-and-personal-decisions)   
Richard Layton: [Understanding Diverse Pathways: Disciplinary Trajectories of Engineering Students](https://peer.asee.org/understanding-diverse-pathways-disciplinary-trajectories-of-engineering-students)   
Richard Layton: [Student Demographics and Outcomes in Mechanical and Aerospace Engineering Including Migration between the Disciplines](https://peer.asee.org/student-demographics-and-outcomes-in-mechanical-and-aerospace-engineering-including-migration-between-the-disciplines)   
Jay McCormack: [Role of Artifacts in Creating a Self-Renewing Design and Manufacturing Community of Practice](https://peer.asee.org/role-of-artifacts-in-creating-a-self-renewing-design-and-manufacturing-community-of-practice)   
Jay McCormack: [Scenario and Scoring Sheet Development for Engineering Professional Skill Assessment](https://peer.asee.org/scenario-and-scoring-sheet-development-for-engineering-professional-skill-assessment)   
Jay McCormack: [Using the EPSA Rubric to Evaluate Student Work in a Senior Level Professional Issues Course](https://peer.asee.org/using-the-epsa-rubric-to-evaluate-student-work-in-a-senior-level-professional-issues-course)   
Deborah Walter: [Collaborative Research: Center for Mobile Hands-on STEM](https://peer.asee.org/collaborative-research-center-for-mobile-hands-on-stem-2014)   
Richard Layton: [Characterizing and Modeling the Experience of Transfer Students in Engineering](https://peer.asee.org/characterizing-and-modeling-the-experience-of-transfer-students-in-engineering)   
Richard Layton: [SMARTER Teamwork: System for Management, Assessment, Research, Training, Education, and Remediation for Teamwork](https://peer.asee.org/smarter-teamwork-system-for-management-assessment-research-training-education-and-remediation-for-teamwork-2014)

**Frontiers in Education, October 2013, Oklahoma City**

(only RHIT authors listed – see [conference program](http://fie2013.fie-conference.org/sites/fie2013.fie-conference.org/files/FIE2013FinalProgram.pdf)for complete citation information)  
Mario Simoni: Why are Continuous-Time Signals and Systems Courses so Difficult? How Can We Make Them More Accessible?  
Richard Layton: Student Demographics and Outcomes in Electrical and Mechanical Engineering.  
Deborah Walter: Models of Adoption and Best Practices for Mobile Hands-On Learning in Electrical Engineering.  
Cary Laxer: Contemplations on Results from Investigating the Personal Epistemology of Computing.  
Mario Simoni: Hands-On Activities with Portable Electronics.  
Mario Simoni: Hands-On Electricity: An Active Learning Opportunity for High-School Physics.