

CYNTHIA J. ATMAN

Curriculum Vitæ, updated May 13, 2018

Human Centered Design & Engineering
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EDUCATIONAL HISTORY

Carnegie Mellon University, Pittsburgh, PA
Ph.D., Engineering and Public Policy
1986 – 1990

Thesis: Network Structures as a Foundation for Risk Communication: An Investigation of Structure and Format Differences, Advisor: Baruch Fischhoff

The Ohio State University, Columbus, OH
M.S., Industrial and Systems Engineering, *Magna Cum Laude*
1981 – 1983

West Virginia University, Morgantown, WV
B.S., Industrial Engineering, *Magna Cum Laude*
1975 – 1979

EMPLOYMENT HISTORY

University of Washington, Seattle, WA

- Professor, Human-Centered Design & Engineering (HCDE), (01/2009 - present)
- Chair, Mitchell T. and Lella Blanche Bowie Endowed Chair (01/2006 - present)
- Director, Center for Engineering Learning & Teaching (CELT), (1998 - present)
<http://depts.washington.edu/celtweb/>
 - 9/2015-present: Center to conduct research in engineering learning (in HCDE)
 - 9/1998-9/2015: Center to conduct research in engineering learning and promote teaching effectiveness in engineering classrooms at the UW. (in College of Engineering)
- Co-Director and co-PI, Consortium to Promote Reflection in Engineering Education (CPREE), (3/2014 - present)
The Leona B. and Harry M. Helmsley Trust funded, \$4.4 million award
<http://cpree.uw.edu/>
- Director and Principal Investigator, Center for the Advancement of Engineering Education (CAEE) (01/2003 - 06/2010)
NSF-funded Center for Learning and Teaching, five year, \$12.2 million award to University of Washington (lead), Colorado School of Mines, Howard University, Stanford University, and University of Minnesota,
<http://www.engr.washington.edu/caee/>
- Professor, Department of Industrial Engineering (9/03 - 1/2009)
- Associate Professor, Department of Industrial Engineering (9/1998 - 9/2003)

University of Pittsburgh, Pittsburgh, PA

- Associate Professor, Department of Industrial Engineering (05/1997 – 09/1998)
- Assistant Professor, Department of Industrial Engineering (09/1991 – 05/1997)
- Whiteford Faculty Fellow (1993 – 1999)

American Association for the Advancement of Science Diplomacy Postdoctoral Fellow

- U. S. Agency for International Development, Washington, DC (09/1990 – 08/1991)
- Bureau for Science and Technology, Office of Education: Responsible for research and project development to address issues of math, science, and technology education in developing countries.

Carnegie Mellon University, Pittsburgh, PA

Research Assistant (09/1986 – 08/1990)

LSW Incorporated, Landover, MD

Senior Software Trainer, U.S. Senate (01/1985 – 08/1986)

IBM Corporation, Bethesda, MD

Associate Programmer Analyst (08/1983 – 12/1984)

Ohio State University, Columbus, OH

Teaching Asst., Engineering Graphics (09/1982 – 06/1983)

University Fellow (09/1981 – 08/1992)

Union Carbide Corporation, Charleston, WV

Advanced Engineer (06/1979 – 09/1981)

AWARDS AND HONORS

- IEEE Professional Communication Society Alfred N. Goldsmith Award for Outstanding Achievement in Engineering Communication, July 2017
- David B. Thorud Leadership Award, University of Washington, March 2009
- William Elgin Wickenden Award from the American Society of Engineering Education, for Best Paper in the Journal of Engineering Education in 2008 for “Engineering Design Processes: A Comparison of Students and Expert Practitioner,” C.J. Atman, R. S. Adams, S. Mosborg, M. E. Cardella, J. Turns, and J. Saleem, 2008
- American Society of Engineering Education Fellow, May 2006
- American Association for the Advancement of Science Fellow, February 2006
- The Mitchell T. and Lella Blanche Bowie Endowed Chair, January 2006
- *Design Studies* Best Paper Award for “Educating Effective Engineering Designers: The Role of Reflective Practice” Robin S. Adams, Jennifer Turns, Cynthia J. Atman, May 2003
- ASEE Chester F. Carlson Award for Innovation in Engineering Education, June 2002
- Outstanding Professor in Industrial Engineering, UW (award from students), June 2002
- University of Pittsburgh, Whiteford Faculty Fellow, 1993–1999
- National Science Foundation Young Investigator Award, 1993–1998
- American Association for the Advancement of Science Diplomacy Postdoctoral Fellowship, 1990 – 1991
- University Graduate Fellowship, Ohio State University, 1981–1982
- Outstanding Senior, West Virginia University Industrial Engineering, 1979

KEYNOTE ADDRESSES

- Invited Keynote Speaker. IEEE Professional Communication Conference, Madison, Wisconsin, July 25, 2017. "Concrete & Sticky: An Informal Theory of Change (With Three Worked Examples)".
- Invited Keynote Speaker. Engineering the Future 2017 Symposium, Dubai Academic City, United Arab Emirates, April 6, 2017, "Opportunities for Engineering Education."
- Invited Keynote Speaker. 5th Annual ASEE Engineering Education Colloquium, Stanford University, April 7, 2016. "Doing (and Reflecting On) Design: A Productive Pairing."
- Invited Keynote Speaker, 7th Conference on Engineering Education for Sustainable Development, Vancouver, B.C., June 10, 2015, "Does the Globe Get a Say? Researching & Teaching on Designing in Context."
- Invited Keynote Speaker, 11th Annual Teaching & Learning Symposium, Center for Learning & Teaching (CLT), University of Washington, April 14, 2015, "Using Reflection to Support Student Learning."
- Invited Keynote Speaker, SEFI (European Society of Engineering Education) Annual Conference, Birmingham, England, September 15-19, 2014, "Designing Design Learning."
- Invited Distinguished Lecture Series, 2014 ASEE Annual Conference and Exposition, Indianapolis, IN, June 18, 2014. "Inspiring Change Agents to Transform Engineering Education: Challenges and Strategies of Engineering Education Pioneers."
- Invited Distinguished Speaker, 2013 Gochenour Lecture, West Virginia University, October 24-25, 2013. "Making Sense of Engineering Design: Seeing, Hearing and Learning."
- Invited Featured Speaker, 2013 Pacific Northwest ASEE Conference, Des Moines, WA, March 8, 2013. "Seeing and Hearing Design: Design Representations as Teaching Tools."
- Invited Keynote Speaker, 15th Annual Conference on Research on Undergraduate Mathematics Education (RUME), Portland, OR, February 24-27, 2012, "The Engineers in your Math Class: What are they Thinking?"
- Invited Distinguished Lecture at the National Science Foundation, Arlington, VA, October 27, 2010. Atman, C.J. and Turns, J., "Enabling Engineering Student Success: Using Research to Inform Engineering Education Decisions."
- Invited Keynote Speaker, Joint International IGIP-SEFI (European Society for Engineering Education) Annual Conference 2010, Trnava, Slovakia, September 19-22, 2010, "Educating the Well-Rounded Engineer. A View into the U.S. System."
- Invited Keynote Speaker, FIE Annual Conference, San Antonio, TX, October 20, 2009. "Educating the Well-Rounded Engineer. Insights from the Academic Pathways Study."
- Invited Keynote Speaker, WEPAN Annual Conference, Austin, TX, June 18, 2009. "Pathways Study of Engineering Undergraduates: A Comparison of Women and Men."
- Invited Keynote Speaker, ASEE Pacific Northwest Regional Conference, Seattle, WA, November 7, 2008, "Thinking Design, Doing Design...and Becoming Designers."
- Invited Keynote Speaker, Science, Technology, Engineering, Mathematics Talent Expansion Program (STEP) 2008 Grantees Meeting, Arlington, VA, March 7, 2008, "Undergraduate Pathways to Engineering: Insights from a Longitudinal Study."
- Invited Keynote Speaker, NAE/CASEE Dane and Mary Louise Miller Symposium, Milwaukee, WI, October 9, 2007, "Center for the Advancement of Engineering Education: An Overview of Accomplishments to Date."
- Invited Opening Address, Danish Centre for Engineering Education Research and Development, Copenhagen University and Aalborg University, June 8, 2007, "Engineering Education Research: Some History and Examples from the U.S."

- Invited Keynote Address, First International Computing Education Research Workshop, October 2005
- Invited Keynote Address, Innovation and Technology in Computer Science Education, June 2001

PUBLICATIONS

Refereed archival journal publications

1. Kilgore, D., Atman, C.J., Jocuns, A., Shroyer, K. (2018) From Research to Action in the Classroom: Encouraging Broad Thinking in Engineering Design with Significant Learning Experiences Journal: *International Journal of Engineering Education* Vol. 34, No. 2(B), pp. 659-673. (an updated version of the Mudd Workshop paper)
2. Borgford-Parnell, J., Turns, J., Atman, C. J., Yasuhara, K., & Fryhle, L. (2017). A pedagogy of larger concerns used as a lens to reflect on the design of student learning experiences. *European Journal of Engineering Education*, 1-16.
3. Yasuhara, K., Campbell, R.C., & Atman, C.J. (2016). "Where do engineering students learn to consider design problem context?" *International Journal of Engineering Education*, Vol. 32,(3), Part B, pp.1472-1480
4. Atman, C.J., Sheppard, S., Turns, J., Adams, R., Yasuhara, K., & Lund, D. (2012) "The Center for the Advancement of Engineering Education: Results and Resources." *International Journal of Engineering Education*, Vol. 28, No. 5, pp.1-14.
5. Yasuhara, K., Lande, M., Chen, H., Sheppard, S., Atman, C. (2012) "Educating Engineering Entrepreneurs: A Multi-Institution Analysis." *International Journal of Engineering Education*, 28(2): 436-447.
6. Kilgore, D., Jocuns, A., Yasuhara, K., and Atman, C.J. (2010). "From Beginning to End: How Engineering Students Think and Talk about Sustainability across the Life Cycle." *International Journal of Engineering Education*, 26(2): 305-313.
7. Borgford-Parnell, J., Deibel, K., and Atman, C.J. (2010). "From Engineering Design Research to Engineering Pedagogy: Bringing Research Results Directly to the Students." *International Journal of Engineering Education*, 26(4): 748-759.
8. Atman, C.J., Kilgore, D., and McKenna, A. (2008). "Characterizing Design Learning: A Mixed-Methods Study of Engineering Designers' Use of Language." *Journal of Engineering Education*, 97(3), 309-326.
9. Atman, C.J., Yasuhara, K., Adams, R. S., Barker, T., Turns, J., and Rhone, E. (2008). "Breadth in Problem-Scoping: A Comparison of Freshman and Senior Engineering Students." *International Journal of Engineering Education*, 24(2), 234-245.
10. Cardella, M. E., Atman, C.J., Turns, J., Adams, R. S. (2008). "Students with Differing Design Processes as Freshmen: Case Studies on Change." *International Journal of Engineering Education*, 24(2), 246-259.

11. Atman, C.J., Adams, R. S., Cardella, M. E., Turns, J., Mosborg, S., and Saleem, J. J. (2007). "Engineering Design Processes: A Comparison of Students and Expert Practitioners." *Journal of Engineering Education*, 96(4), 359-379.
12. Kilgore, D., Atman, C.J., Yasuhara, K., Barker, T. J., and Morozov, A. (2007). "Considering Context: A Study of First-Year Engineering Students." *Journal of Engineering Education*, 96(4), 321-334.
13. Turns, J., Cardella, M.E., Atman, C.J., Martin, J., and Newman, J. (2006). "Tackling the Research-to-Teaching Challenge in Engineering Design Education: Making the Invisible Visible." *International Journal of Engineering Education*, 22(3), 598-608.
14. Cardella, M. E., Atman, C.J., and Adams, R. S. (2006). "Mapping Between Design Activities and External Representations for Engineering Student Designers." *Design Studies*, 27(1), 5-24.
15. Atman, C.J., Cardella, M. E., Turns, J., and Adams, R. (2005). "Comparing Freshman and Senior Engineering Design Processes: an In-depth Follow-up Study." *Design Studies*, 26(4), 325-357.
16. Cardella, Monica E. and Cynthia J. Atman . (2005). A Qualitative Study of the Role of Mathematics in Engineering Capstone Design Projects: Initial Insights," iNEER Special Volume: Innovations, World Innovations in Engineering Education and Research, 2005.
17. Turns, J., Atman, C.J , Adams, R.S., and Barker, T. (2005). "Research on Engineering Student Knowing: Trends and Opportunities." *Journal of Engineering Education*, 94(1), 27-40.
18. Turns, J., Adams, R. S., Linse, A., Martin, J., and Atman, C.J. (2004). "Bridging from Research to Teaching in Undergraduate Engineering Design Education." *International Journal of Engineering Education*, 20(3), 379-390.
19. Adams, R. S., Turns, J., and Atman, C.J. (2003). "Educating Effective Engineering Designers: the Role of Reflective Practice." *Design Studies*, 24(3), 275-294. This paper received the 2003 *Design Studies* Best Paper Award.
20. Adams, R. S., Atman, C.J., Nakamura, R., Kalonji, G., and Denton, D. (2002). "Assessment of an International Freshman Research and Design Experience: A Triangulation Study." *International Journal of Engineering Education*, 18(2), 180-192.
21. McGourty, J., Shuman, L. J., Besterfield-Sacre, M., Atman, C.J., Miller, R., Olds, B., et al. (2002). "Preparing for ABET EC 2000: Research-Based Assessment Methods and Processes." *International Journal of Engineering Education*, 18(2), 157-167.
22. Besterfield-Sacre, M., Moreno, M., Shuman, L. J., and Atman, C.J. (2001). "Gender and Ethnicity Differences in Freshmen Engineering Student Attitudes: A Cross-institutional Study." *Journal of Engineering Education*, 90(4), 477.
23. Besterfield-Sacre, M., Shuman, L. J., Wolfe, H., Atman, C.J., McGourty, J., Miller, R. L., et al. (2000). "Defining the Outcomes: a Framework for EC-2000." *IEEE Transactions on Education*, 43(2), 100-110.

24. Safoutin, M. J., Atman, C.J., Adams, R., Rutar, T., Kramlich, J. C., and Fridley, J. L. (2000). "A Design Attribute Framework for Course Planning and Learning Assessment." *IEEE Transactions on Education*, 43(2), 188-199.
25. Turns, J., Atman, C.J., and Adams, R. (2000). "Concept Maps for Engineering Education: A Cognitively Motivated Tool Supporting Varied Assessment Functions." *IEEE Transactions on Education*, 43(2), 164-173.
26. Mullins, C.A., Atman, C.J., and Shuman, L. J. (1999). "Freshman engineers' performance when solving design problems." *IEEE Transactions on Education*, 42(4), 281-287.
27. Atman, C.J., Chimka, J. R., Bursic, K.M., and Nachtman, H.L. (1999). "A comparison of Freshman and Senior Engineering Design Processes." *Design Studies*, 20(2), 131-152.
28. Atman, C.J., and Bursic, K.M. (1998). "Verbal protocol analysis as a method to document engineering student design processes." *Journal of Engineering Education*, 87(2), 121-132.
29. Besterfield-Sacre, M., Atman, C.J., and Shuman, L. J. (1998). "Engineering student attitudes assessment." *Journal of Engineering Education*, 87(2), 133.
30. Bursic, K. M., and Atman, C.J. (1997). "Information Gathering: A critical step for quality in the design process." *Quality Management Journal*, 4(4), 60-75.
31. Besterfield-Sacre, M., Atman, C.J., and Shuman, L. J. (1997). "Characteristics of freshman engineering students: models for determining student attrition in engineering." *Journal of Engineering Education*, 86(2), 139-149.
32. Atman, C.J., and Bursic, K. M. (1996). "Teaching engineering design: can reading a textbook make a difference?" *Research in Engineering in Design*, 8, 240-250.
33. Atman, C.J., and Nair, I. (1996). "Engineering in Context: An Empirical study of freshmen students' conceptual frameworks." *Journal of Engineering Education*, 85(4), 317-326.
34. Atman, C.J., Bostrom, A., Fischhoff, B., and Morgan, M. G. (1994). "Designing risk communications: completing and correcting mental models of hazardous processes, part I." *Risk Analysis*, 14(5), 779-788. Reprinted in *Environmental Risk Planning and Management*, Simon Gerrard, R. Kerry Turner and Ian Bateman, (eds.), Cheltenham, UK: Edward Elgar Publishing, 2001.
35. Bostrom, A., Atman, C.J., Fischhoff, B., and Morgan, M. G. (1994). "Evaluating risk communications: completing and correcting mental models of hazardous processes, part II." *Risk Analysis*, 14(5), 789-798. Reprinted in *Environmental Risk Planning and Management*, Simon Gerrard, R. Kerry Turner and Ian Bateman, (eds.), Cheltenham, UK: Edward Elgar Publishing, 2001.
36. Morgan, G. M., Fischhoff, B., Bostrom, A., Lave, L., and Atman, C.J. (1992). "ES &T Features. Communicating Risk to the Public. First, Learn What People Know and Believe." *Environmental Science Technology*, 26(11), 2048-2056.

Complete books written

1. Atman, C.J., Sheppard, S.D., Turns, J., Adams, R.S., Fleming, L.N., Stevens, R., Streveler, R.A., Smith, K.A., Miller, R.L., Leifer, L.J., Yasuhara, K., & Lund, D. *Enabling Engineering Student Success: The Final Report for the Center for the Advancement of Engineering Education*. San Rafael, CA: Morgan & Claypool Publishers, 2010.
2. Morgan, M. G., Fischhoff, B., Bostrom, A., and Atman, C.J. *Risk Communications: A Mental Models Approach*. Cambridge: Cambridge University Press, 2002.

Book Chapters

1. Shroyer, K., Turns, J., Lovins, T., Cardella, M. & Atman, C. J. (2017) Team Idea Generation in the Wild: A View from Four Timescales. In: Christensen, B. T., Ball, L. J. & Halskov, K. (Eds.). *Analysing Design Thinking: Studies of Cross-Cultural Co-Creation*. Leiden: CRC Press/Taylor & Francis. Pages: 521 - 540
2. Sattler, B., Turns, J.A., & Atman, C.J. (2015). "Motherhood: Reflection, Design, and Self-Authorship." *Teacher, Scholar, Mother: Re-Envisioning Motherhood in the Academy*. Lexington Books, Lanham, MD, 2015. (ISBN: 978-1498503402)
3. Atman, C.J., Eris, O., McDonnell, J., Cardella, M., & Borgford-Parnell, J. (2014). "Engineering Design Education: Research, Practice and Examples that Link the Two." *The Cambridge Handbook of Engineering Education Research (CHEER)*, Chapter 11 (pp: 201-226). Cambridge University Press, 2014. (ISBN: 978-1107014107). This book was awarded the AERA Division I Outstanding Publication Award for Books in 2014
4. Borgford-Parnell, J., Deibel, K., Atman, C.J. "Engineering Design Teams: Considering the Forest and the Trees." *Engineering Practice in Global Context*, Chapter 4 (pp: 79-99), CRC Press/Balkema, Taylor & Francis Group, The Netherlands, 2013. (ISBN: 978-0415636964).
5. Atman, C.J., Borgford-Parnell, J, Deibel, K., Kang, A., Ng, W.H., Kilgore, D., and Turns J. "Matters of Context in Design." In J. McDonnell and P. Lloyd, (eds), *About Designing: Analysing Design Meetings*. Taylor and Francis Group, London, 2009. (ISBN: 978-0415440585).
6. Cardella, M. E., and Atman, C.J. "A Qualitative Study of the Role of Mathematics in Engineering Capstone Design Projects: Initial Insights." In W. Aung (Ed.), *Innovations 2005: World Innovations in Engineering Education and Research* (pp. 1024-1035). Arlington, VA: INEER/Begell House Publishing, 2005.
7. Atman, C.J., Turns, J., Fleming, L., Adams, R.S., Leifer, L., Sheppard, S., et al. "The Center for the Advancement of Engineering Education: A Description at Year 2." In *Invention and impact: building excellence in undergraduate science, technology, engineering and mathematics (STEM) education*. Washington, DC: American Association for the Advancement of Science, 2004.
8. Adams, R.S., Turns, J., and Atman, C.J. "The Center for Engineering Learning and Teaching, University of Washington." In J. P. Clarkson and C. Eckert (Eds.), *Design Process Improvement – A Review of Current Practice* (pp. 550-553). London: Springer Verlag. 2004.

9. Atman, C.J., and Turns, J. "Studying Engineering Design Learning: Four Verbal Protocol Studies." In C. M. Eastman, W. M. McCracken and W. C. Newstetter (Eds.), In *Design Knowing and Learning: Cognition in Design Education* (pp. 37-60). New York: Elsevier, 2001.
10. Bostrom, A., Atman, C.J., Baruch, F., and Morgan, G. M. "Public Knowledge About Indoor Radon: The Effects of Risk Communication." In J. Geweke (Ed.), *Decision making under risk and uncertainty: new models and empirical findings*. Dordrecht, The Netherlands; Boston: Kluwer Academic Publishers, 1992.

Refereed Conference Papers with Proceedings and other refereed non-journal articles

1. Turns, Jennifer Anne; Scalone, Giovanna; Arif, Ahmer; Lovins, Terri; Atman, Cindy (2017). Dimensions in Designing Reflection Activities, Proceedings of the World Engineering Education Forum, Kuala Lumpur, November 2017.
2. Turns, J., Shroyer, K., Lovins, T., and Atman, C.J. (2017). Understanding reflection activities broadly, Proceedings of the Annual Conference of the American Society for Engineering Education, Columbus, Ohio, June 2017.
3. Kilgore, Deborah, Cynthia J. Atman, Andy Jocuns, Kathryn Shroyer. (2017) From Research to Action in the Classroom: Encouraging Broad Thinking in Engineering Design with Significant Learning Experiences. *Mudd Design Workshop X. Claremont, CA. June 1-4, 2017.*
4. Shroyer, K.E., Turns, J.A., Lovins, T., Cardella, M., Atman, C.J. (2016) From Idea to Ideospace: Tracing a design discussion in a brainstorming session. Design Thinking Research Symposium 11 (DTRS11), Copenhagen, Denmark. November 2016
5. Allendoerfer, C., Yasuhara, K. Turns, J., Atman, C. (2016) Making an impact on engineering education communities: Learning from the past and looking forward Proceedings of the Annual Conference of the American Society for Engineering Education, New Orleans, LA, June 2016.
6. Atman, C.J., Arif, A., Shroyer, K.E., Turns, J.A., & Borgford-Parnell, J. (2016) "Spend another day in our class talking about this research please": Student insights from a research-based design thinking exercise. Design Research Society, 2016 Design Research Society 50th Anniversary Conference (DRS), Brighton, UK. June 27-30, 2016.
7. Borgford-Parnell, J., Turns, J.A., & Atman, C.J., (2015). *A pedagogy of larger concerns manifested in an engineering design seminar*. Research in Engineering Education Symposium (REES). Dublin, Ireland. July 13-15, 2015.
8. McDonnell, J. & Atman, C.J. (2015). *Paying attention to the design process: Critically examining personal design practice*. LearnxDesign Conference. Chicago, IL. June 28-30, 2015.
9. Atman, C.J., McDonnell, J., Campbell, R., Borgford-Parnell, J., & Turns, J. A. (2015). *Using design process timelines to teach design: Implementing research results*. American Society of Engineering Education Annual Conference (ASEE). Seattle, WA. June 14-17, 2015.
10. Turns, J.A., Sattler, B., Thomas, L.D., Atman, C.J., Bankhead, R.B., Carberry, A.R., Csavina, K.R., Cunningham, P., Faust, D.K., Harding, T.S., & Yasuhara, K. (2015). *Reflecting on reflection: How*

- educators experience the opportunity to talk about supporting student reflection.* American Society of Engineering Education Annual Conference (ASEE). Seattle, WA. June 14-17, 2015.
11. Sepp, L.A., Orand, M., Turns, J.A., Thomas, L.D., Sattler, B., & Atman, C.J. (2015). *On an upward trend: Reflection in engineering education.* American Society of Engineering Education Annual Conference (ASEE). Seattle, WA. June 14-17, 2015.
 12. Yasuhara, K., Campbell, R.C., & Atman, C.J. (2015). *Where do engineering students learn to consider design problem context?* Mudd Design Workshop IX. Claremont, CA. May 28-30, 2015. Revised version of this paper will appear in the *International Journal of Engineering Education*, 32(2), 2016.
 13. Atman, C.J., McDonnell, J., Campbell, R. & Turns, J.A., *Students Discovering Their Own Design Processes: Using Design Process Representations to Learn about Designing* (Work in Progress), presented at the 2014 Annual Frontiers in Education Conference (FIE), Madrid, Spain, October 22-25, 2014. Presented by Jennifer A. Turns.
 14. Turns, J.A., Sattler, B., Yasuhara, K., Jim Borgford-Parnell, & Atman, C.J. (2014). *Integrating Reflection into Engineering Education.* Proceedings of the 2014 American Society of Engineering Education Conference (ASEE), Indianapolis, IN. June 15-18, 2014. (available online)
 15. Krause, K., Huneke, M., Yasuhara, K & Atman, C., *Undergraduate Reflections on Learning Engineering Design*, presented at the 2013 IEEE International Professional Communication Conference, Vancouver, B.C., July 15-17, 2013
 16. Krause, K., Atman, C.J., Borgford-Parnell, J. & Yasuhara, K., *Designing for Communities: The Impact of Domain Expertise* AC2013-6734, presented at the 2013 ASEE Annual Conference & Exposition, Atlanta, GA, June 23-26, 2013
 17. Krause, K., Atman, C.J., Borgford-Parnell, J, Deibel, K. *Design Considerations: Implications of Domain Expertise.* In proceedings of the Frontiers in Education Conference, Seattle, WA, October 2012.
 18. Campbell, R.C., Yasuhara, K., Atman, C.J., & Shepard, S., *Exploring If and How Knowledge of a Humanitarian Disaster Affects Student Design Thinking.* AC 2012-5232 presented at the 2012 ASEE Annual Conference & Exposition, San Antonio, TX, June 10-13, 2012.
 19. Yasuhara, K., Lande, M., Chen, H., Atman, C.J., Sheppard, S. *Shifting Conceptions of Engineering Design: Longitudinal and Cross-Sectional Studies of Undergraduate Engineering Majors.* Research in Engineering Education Symposium (REES), Madrid, Spain, October 2011. In proceedings of the Mudd Design Workshop VII: Design Education: Innovation and Entrepreneurship, Claremont, CA, May 2011. Revised version of this paper also published in the *International Journal of Engineering Education*, 28(2): 436-447, 2012
 20. Yasuhara, K., Lande, M., Chen, H., Sheppard, S., & Atman, C.J. *Educating Engineering Entrepreneurs: A Multi-Institution Analysis.* In proceedings of the Mudd Design Workshop VII: Design Education: Innovation and Entrepreneurship, Claremont, CA, May, 2011. Revised Version of

this paper also published in the International Journal of Engineering Education, 28(2): 436-447, 2012

21. Atman, C.J., Borgford-Parnell, J., Goist, Z., Deibel, K., Blair, J., Bodle, C., Kumar, V., Roesler, A., Tanimoto, S., & Zachry, M. (2010). *Seeing and hearing design: Exploring how visual representations and sound tracks could be used to teach design*, pp 25-37. In proceeding of Design Thinking and Research Symposia, Sydney, Australia, October 2010.
22. Atman, C.J., Deibel, K. and Borgford-Parnell, J. *The Process of Engineering Design: A Comparison of Three Representations*. In proceedings of the International Conference on Engineering Design (ICED), Stanford, CA, August 2009.
23. Yasuhara, K., Morozov, A., Kilgore, D., Atman, C.J., and Loucks-Jaret, C. *Considering Life Cycle During Design: A Longitudinal Study of Engineering Undergraduates*. In proceedings of the American Society of Engineering Education Conference, Austin, TX, June 2009.
24. Kilgore, D., Jocuns, A., Yasuhara, K., Atman, C.J. and Morozov, A. *From Beginning to End: How Do Engineering Students Think and Talk about Sustainability Across the Life Cycle?* In proceedings of the Mudd Design Workshop VII: Sustaining Sustainable Design, Claremont, CA, May 2009. Revised version of this paper appeared in the *International Journal of Engineering Education*, 26(2): 305-313, 2010.
25. Atman, C.J., Sheppard, S., Fleming, L., Miller, R., Smith, K., Stevens R., Streveler, R., Loucks-Jaret, C., & Lund, D. *Moving from Pipeline Thinking to Understanding Pathways: Findings from the Academic Pathways Study of Engineering Undergraduates*. In proceedings of the American Society for Engineering Education Annual Conference, Pittsburgh, PA, June 2008.
26. Clark, M., Sheppard, S., Atman, C.J., Fleming, L., Miller, R., Stevens R., Streveler, R., & Smith, K. *Academic Pathways Study: Processes and Realities*. In proceedings of the American Society for Engineering Education Annual Conference, Pittsburgh, PA, June 2008.
27. Morozov, A., Kilgore, D., Yasuhara, K., & Atman, C.J. *Same Courses, Different Outcomes? Variations in Confidence, Experience, and Preparation in Engineering Design*. In proceedings of the American Society for Engineering Education Annual Conference, Pittsburgh, PA, June 2008.
28. Atman, C.J., Borgford-Parnell, J., Deibel, K., Kang, A., Ng, W. H., Kilgore, D., and Turns, J. *Matters of Context in Design*. In proceedings of the Design Thinking Research Symposium VII, London, England, September 2007.
29. Morozov, A., Kilgore, D., & Atman, C.J. *Breadth in Design Problem Scoping: Using Insights from Experts to Investigate Student Processes*. In proceedings of the American Society for Engineering Education Annual Conference, Honolulu, HI, June 2007.
30. Cardella, M. E., & Atman, C.J. *Engineering Students' Mathematical Thinking: In the Wild and with a Lab-based Task*. In proceedings of the American Society for Engineering Education Annual Conference, Honolulu, HI, June 2007.
31. Atman, C.J., Rhone, E., Adams, R. S., Turns, J., Barker, T., & Yasuhara, K. *Breadth in Problem-Scoping: A Comparison of Freshman and Senior Engineering Students*. In proceedings of the Mudd Design Workshop VI: Design and Engineering Education in a Flat World, Claremont, CA, May 2007.

Revised version of this paper also published in the *International Journal of Engineering Education*, 24(2): 234-245, 2008.

32. Cardella, M.E., Atman, C.J., & Turns, J., Adams, R. *Students with Differing Design Processes as Freshmen: Case Studies on Change*. In proceedings of the Mudd Design Workshop VI: Design and Engineering Education in a Flat World, Claremont, CA, May 2007. Revised version of this paper also published in the *International Journal of Engineering Education*, 24(2): 246-59, 2008.
33. Kilgore, D., Yasuhara, K., Saleem, J. J., & Atman, C.J. *What Brings Women to the Table? Female and Male Students' Perceptions of Ways of Thinking in Engineering Study and Practice*. In proceedings of the Frontiers in Education Conference San Diego, CA, October 2006.
34. Cardella, M.E., & Atman, C.J. *Engineering Students' Mathematical Problem Solving Strategies in Capstone Projects*. In proceedings of the American Society of Engineering Education Annual Conference and Exposition, Portland, OR, June 2005.
35. Mosborg, S., Adams, R. S., Kim, R., Atman, C.J., Turns, J., & Cardella, M.E. *Conceptions of the Engineering Design Process: An Expert Study of Advanced Practicing Professionals*. In proceedings of the American Society for Engineering Education Annual Conference, Portland, OR, June 2005.
36. Turns, J., Cardella, M.E., Atman, C.J., Martin, J., & Newman, J. *Tackling the Research-to-Teaching Challenge in Engineering Design Education: Making the Invisible Visible*. In proceedings of the Mudd Design Workshop V: Learning & Engineering Design, Claremont, CA, May 2005
37. Cardella, M.E., & Atman, C.J. *A Qualitative Study of the Role of Mathematics in Engineering capstone design projects*. In proceedings of the International Conference on Engineering Education, Gainesville, FL, August 2004.
38. Sheppard, S., Atman, C.J., Stevens, R., Fleming, L., Streveler, R., Adams, R. S., et al. *Studying the Engineering Experience: Design of a Longitudinal Study*. In proceedings of the American Society for Engineering Education Annual Conference, Salt Lake City, UT, June 2004.
39. Smith, K. A., Linse, A., Turns, J., & Atman, C.J. *Engineering Change*. In proceedings of the American Society for Engineering Education Annual Conference, Salt Lake City, UT, June 2004.
40. Adams, R. S., Atman, C.J., & Turns, J. *What Could Design Learning Look Like?* In proceedings of the Expertise in Design: Proceedings of the Design Thinking Research Symposium 6, Sydney, Australia, November 2003.
41. Atman, C.J., Turns, J., Cardella, M. E., & Adams, R.S. *The Design Processes of Engineering Educators: Thick Descriptions and Potential Implications*. In proceedings of the Expertise in Design: Proceedings of the Design Thinking Research Symposium 6, Sydney, Australia, November 2003.
42. Turns, J., Adams, R.S., Linse, A., Martin, J., & Atman, C.J. *Bridging from Research to Teaching in Undergraduate Engineering Design Education*. In proceedings of the Mudd Design Workshop IV: Design Engineering Education, Claremont, CA, July 2003. Revised version of this paper also published in the *International Journal of Engineering Education*, 20(3), 379-390.

43. Davis, D., Trevisan, M., McLean, D., Daniels, P., Gentili, K., Atman, C.J., et al. *A Model for Transferable Integrated Design Engineering Education*. In proceedings of the World Federation Engineering Organization Conference, Nashville, TN, June 2003.
44. Cardella, M. E., Atman, C.J., & Adams, R.S. *Sketching as a Support for Engineering Design Problem Solving*. An extended abstract. In proceedings of the Industrial Engineering Research Conference, Portland, OR, May 2003.
45. Rhone, E., Adams, R. S., Turns, J., & Atman, C.J. *Assessing IE Students' Preparedness for Practice: Do They Think Broadly?* In proceedings of the Industrial Engineering Research Conference, Portland, OR, May 2003.
46. Turns, J., Atman, C.J., Cardella, M. E., & Adams, R.S. *Do We See Within-Subject Change? Four Cases of Engineering Student Design Processes*. In proceedings of the Common Ground Conference, London, September 2002.
47. Adams, R. S., Punnakanta, P., Atman, C.J., & Lewis, C.D. *Comparing design team self-reports with actual performance: cross-validating assessment instruments*. In proceedings of the American Society of Engineering Education Annual Conference, Montreal, Quebec, June 2002.
48. Cardella, M. E., Atman, C.J., Adams, R. S., & Turns, J. *Engineering Student Design Processes: Looking at Evaluation Practices Across Problems*. In proceedings of the American Society of Engineering Education Annual Conference, Montreal, Quebec, June 2002.
49. Nelson, K., Adams, R.S., Lidstrom, M., Bonadio, J., Stahl, D., & Atman, C.J. *Teaching Biology From an Engineering Perspective: Developing a New Course that Integrates Biology Into Undergraduate Engineering Education*. In proceedings of the American Society of Engineering Education Annual Conference, Montreal, Quebec, June 2002.
50. Scott, C., Atman, C.J., & Storch, R. *Using Focus Groups to Identify Industrial Engineering Students' Perceptions of Selected ABET Outcomes*. In proceedings of the American Society of Engineering Education Annual Conference, Montreal, Quebec, June 2002.
51. Shuman, L.J., Atman, C.J., Eschenbach, E.A., Evan, D., Felder, R.M., Imbrie, P.K., McGourty, J., Miller, R.L., Richards, L.G., Smith, K.A., Soulsby, E.P., Waller, A.A., and Yokomoto, C.F. *The Future of Engineering Education*. In proceedings of the Frontiers in Education Conference, Boston, MA, November 2002.
52. Adams, R. S., Turns, J., & Atman, C.J. *Educating Effective Engineering Designers: The Role of Reflective Practice*. In proceedings of the Design Thinking Research Symposium VI, Delft, The Netherlands, December 2001. This paper was also published in a special issue of *Design Studies* in 2003.
53. Lewis, C. D., Adams, R. S., Punnakanta, P., Littleton, J., & Atman, C.J. *Assessing Engineering Design Performance and Teamwork: Cross-Validating Self Reports and Performance Observations*. In proceedings of the Frontiers in Education Conference, Reno, NV, October 2001.

54. Turns, J., Atman, C.J., & Bennett, J. *Assessing Student Preparedness for Professional Engineering Practice: A Professional Advice Task*. In proceedings of the Frontiers in Education Conference, Reno, NV, October 2001.
55. Scott, C., Johnson, M., & Atman, C.J. *Preparing Engineering Graduate Students to Teach: An Innovative Course Design and Evaluation*. In proceedings of the American Society of Engineering Education Annual Conference, Albuquerque, NM, June 2001.
56. Turns, J., & Atman, C.J. *Preparing for Professional Practice in Industrial Engineering: A Complementary Capstone Experience Influenced by the EC2000 Outcomes*. In proceedings of the American Society of Engineering Education Annual Conference, Albuquerque, NM, June 2001.
57. Atman, C.J., Adams, R. S., & Turns, J. *Using Multiple Methods to Evaluate a Freshmen Design Course*. In proceedings of the Frontiers in Education Conference, Kansas City, MO, October 2000.
58. Bogusch, L.L., Turns, J., & Atman, C.J. *Engineering Design Factors: How Broadly do Students Define Problems?* In proceedings of the Frontiers in Education Conference, Kansas City, MO, October 2000.
59. Moreno, M., Besterfield-Sacre, M., Shuman, L. J., Wolfe, H., & Atman, C.J. *Self-Assessed Confidence EC-2000 Outcomes: A Study of Gender and Ethnicity Differences Across Institutions*. In proceedings of the Frontiers in Education Conference, Kansas City, MO, October 2000.
60. Turns, J., Atman, C.J., & Mannering, F. *Preparing for Professional Practice: Course Evaluation and Implications*. In proceedings of the Frontiers in Education Conference, Kansas City, MO, October 2000.
61. Adams, R. S., & Atman, C.J. *Characterizing Engineering Student Design Processes: An Illustration of Iteration*. In proceedings of the American Society of Engineering Education Annual Conference, St. Louis, MO, June 2000.
62. Besterfield-Sacre, M., Shuman, L. J., Wolfe, H., Atman, C.J., McGourty, J., Miller, R. L., et al. *Defining the outcomes: A framework for EC-2000*. In proceedings of the IEEE Transactions on Education, St. Louis, MO, June 2000.
63. Shuman, L. J., Besterfield-Sacre, M., Wolfe, H., Atman, C.J., McGourty, J., Miller, R., et al. (2000). *Matching Assessment Methods to Outcomes: Definitions and Research Questions*. In proceedings of the American Society for Engineering Education Conference, St. Louis, MO, June 2000.
64. Turns, J., Temple, J., & Atman, C.J. *Students' Conceptions of their Engineering Discipline: A Word Association Study*. In proceedings of the American Society of Engineering Education Annual Conference, St. Louis, MO, June 2000.
65. Adams, R. S., & Atman, C.J. *Cognitive Processes in Iterative Design Behavior*. In proceedings of the Frontiers in Education Conference, San Juan, Puerto Rico, November 1999.

66. Atman, C.J., Turns, J., & Mannering, F. *Integrating Knowledge Across the Engineering Curriculum*. In proceedings of the Frontiers in Education Conference, San Juan, Puerto Rico, November 1999.
67. Besterfield-Sacre, M., Moreno, M., Shuman, L. J., & Atman, C.J. *Comparing Entering Freshman Engineers: Institutional Differences in Student Attitudes*. In proceedings of the American Society of Engineering Education Annual Conference, Charlotte, NC, June 1999.
68. Besterfield-Sacre, M., Amaya, N.Y., Shuman, L. J., Atman, C.J., & Porter, R. L. *Understanding Student Confidence as It Relates to First Year Achievement*. In proceedings of the Frontiers in Education Conference, Tempe, AZ, November 1998.
69. Chimka, J. R., & Atman, C.J. *Graphical Representations of Engineering Design Behavior*. In proceedings of the Frontiers in Education Conference, Tempe, AZ, November 1998.
70. Besterfield-Sacre, M., Amaya, N.Y., Shuman, L.J., & Atman, C.J. *Implications of Statistical Process Monitoring for ABET 2000 Program Evaluation: an Example Using Freshman Engineering Attitudes*. In proceedings of the American Society of Engineering Education Annual Conference, Seattle, WA, June 1998.
71. Atman, C.J., Chimka, J. R., and Bursic, K.M. *Results from a Verbal Protocol Study of the Design Process*. In proceedings of the Frontiers in Education Conference, Pittsburgh, PA, November 1997.
72. Besterfield-Sacre, M., Atman, C.J., & Shuman, L. J. *A Cross Institutional Comparison of Freshman Engineering Attitudes*. In proceedings of the Frontiers in Education Conference, Pittsburgh, PA, November 1997.
73. Besterfield-Sacre, M., Shuman, L.J., Atman, C.J., & Wolfe, H. *Three Approaches to Outcomes Assessment: Questionnaires, Protocols, and Empirical Modeling*. In proceedings of the American Society of Engineering Education Annual Conference, Milwaukee, WI, June 1997.
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75. Chimka, J. R., Atman, C.J., & Bursic, K. M. *Describing Student Design Behavior*. In proceedings of the American Society for Engineering Education Conference, Milwaukee, WI, June 1997.
76. Besterfield-Sacre, M., Atman, C.J., Shuman, L. J., Porter, R. L., Felder, R. M., & Fuller, H. *Changes in Freshman Engineers' Attitudes - A Cross Institutional Comparison: What Makes a Difference?* In proceedings of the Frontiers in Education Conference, Salt Lake City, UT, November 1996.
77. Atman, C.J., Bursic, K.M., & Lozito, S.L. *An Application of Protocol Analysis to the Engineering Design Process*. In proceedings of the American Society of Engineering Education Annual Conference, Washington, DC, June 1996.
78. Shuman, L. J., Atman, C.J., & Wolfe, H. *Applying TQM in the IE Classroom: The Switch to Active Learning*. In proceedings of the American Society for Engineering Education Conference, Washington, DC, June 1996.

79. Atman, C.J., Bursic, K. M., & Lozito, S. L. *Gathering Information: What do Students Do?* In proceedings of the American Society of Engineering Education Annual Conference, Anaheim, CA, June 1995.
80. Besterfield-Sacre, M., Atman, C.J., & Shuman, L. J. *How Freshman Attitudes Change in the First Year.* In proceedings of the American Society of Engineering Education Annual Conference, Anaheim, CA, June 1995.
81. Moore, P. L., Atman, C.J., Bursic, K. M., Shuman, L. J., & Gottfried, B. S. *Do Freshman Design Texts Adequately Define the Engineering Design Process?* In proceedings of the American Society of Engineering Education Annual Conference, Anaheim, CA, June 1995.
82. Mullins, C. A., Atman, C.J., Shuman, L. J., & Gottfried, B. S. *Freshman Expectations of an Engineering Program.* In proceedings of the American Society of Engineering Education Annual Conference, Anaheim, CA, June 1995.
83. Atman, C.J., Nair, I., and Nachtmann, H.L. *Do Engineers and Humanities Majors Perceive STS Issues Differently?* In proceedings of the American Society of Engineering Education Annual Conference, Alberta, Canada, June 1994.
84. Besterfield-Sacre, M. E. and Atman, C.J. *Survey Design Methodology: Measuring Freshman Attitudes About Engineering.* In proceedings of the American Society of Engineering Education Annual Conference, Edmonton, Alberta, Canada, June 1994.
85. Mullins, C.A. and Atman, C.J. *Freshmen Engineer's Strategies for Solving Open-ended Problems.* In proceedings of the American Society of Engineering Education Annual Conference, Edmonton, Alberta, Canada, June 1994.
86. Nair, I., & Atman, C.J. (1993). *A Case for Teaching Engineering in Context: Engineering Freshmen's Views about STS Issues.* In proceedings of the American Society for Engineering Education Conference, Champagne, IL, June 1993.
87. Atman, C.J., & Nair, I. *Constructivism: Appropriate for Engineering Education?* In proceedings of the American Society for Engineering Education Conference, Toledo, OH, June 1992.
88. Atman, C.J. *Communicating Technical Information: A Mental Models Approach.* In proceedings of the Industrial Engineering Research Conference, Chicago, IL, May 1992.
89. Atman, K.S. and Atman, C.J. *Type-ified Communications.* In proceedings of the Fall Industrial Engineering Conference, Pittsburgh, PA, 1983.

Refereed Conference Papers without Proceedings

1. Atman, C.J., Turns, J., Horn, M., & Adams, R. *Engineering Students Solving Design Problems: Cases from a Within-Subjects Verbal Protocol Study.* Paper presented at the American Educational Research Association Annual Meeting, Seattle, WA, April 2001.

2. Scott, C., Atman, C.J., & Turns, J. *Mastering Design Concepts Through the Coding of Design*. Paper presented at the American Educational Research Association Annual Meeting, Seattle, WA, April 2001.

Editorials, abstracts, letters, non-refereed papers, selected technical reports

1. Atman, C.J., Avery, K., Irish, I., Lestelle, K., Martin, A., & Sitomer, P. (2016). *Designing Your Own Design Process: Report from HCDE Directed Research Group March to June 2015* (Technical Report No. CELT 15-01). Seattle, WA: Center for Engineering Learning & Teaching, University of Washington.
2. Atman, C. J., Arnesen, B., Bulajewski, E., Chang, S., Jones, M., Lew, A., & Campbell, R. C. (2014). *Designing Your Design Process: Report from HCDE Directed Research Group September to December 2013* (Technical Report No. CELT 14-01). Seattle, WA, USA: Center for Engineering Learning & Teaching, University of Washington.
3. Atman, C. J., Hayes, B., Richey, W., Wang, C., & Campbell, R. C. (2014). *Designing Your Personal Design Process: Report from HCDE Directed Research Group January to March 2013* (Technical Report No. CELT 13-01). Seattle, WA, USA: Center for Engineering Learning & Teaching, University of Washington.
4. Atman, C.J. *Chance Favors the Prepared Mind: Design Creativity, Innovation, and Education*. Editorial in the inaugural issue of the *International Journal of Design Creativity and Innovation*, Volume 1, Issue 1, 2013.
5. Atman, C.J., Turns, J., Sheppard, S.D. *Supporting Informed Decision Making to Improve Engineering Education*. Editorial in the *Journal of STEM Education*, Volume 12, Issue 7 & 8, Special Edition 2011.
6. Deibel, K., Atman, C.J., Borgford-Parnell, J. (2011). *The Role of Expertise in Shaping the Dominance of Modeling Activities in Engineering Design*. Technical Report CELT-11-01, Seattle, WA: Center for Engineering Learning & Teaching, University of Washington.
7. Goist, Z., Deibel, K., Atman, C.J., and Borgford-Parnell, J. (2010). *DTRS8 Procedural Report*. Technical Report CELT-10-02, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
8. Atman, C.J., Deibel, K., Borgford-Parnell, J. (2010). *Objects Collapse and Coding*. Technical Report CELT-10-01, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
9. Atman, C.J. *Surprise Happens to the Prepared Mind: Linking Context and Creativity in Engineering Design*. Paper presented at the ACM Creativity & Cognition in Engineering Design Conference, Berkeley, CA, October 2009. Also presented as a workshop.
10. Atman, C.J., Kilgore, D., Yasuhara, K., and Morozov, A. *Considering Context over Time: Emerging Findings from a Longitudinal Study of Engineering Students*. Presented at the Research in Engineering Education Symposium (REES), Davos, Switzerland, July 2008.

11. Kilgore, D., Atman, C.J., Kang, A., and Deibel, K. (2008). *Undergraduate Student Information Gathering Case Studies*. Technical Report CELT-08-01, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
12. Deibel, K., Atman, C.J., Saleem, J., Kang, A., and Ng, W. H. (2007). *Comparing Two Populations of Undergraduate Student Design Processes on the Playground Design Task*. CELT Technical Report, CELT-07-11. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
13. Ng, W.H., Deibel, K., Atman, C.J., and Borgford-Parnell, J. (2007). *DTRS7 Agenda Items Coding*. Technical Report CELT-07-07, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
14. Deibel, K., Nguyen, N., Atman, C.J., and Borgford-Parnell, J. (2007). *DTRS7 Conversation Topic Coding*. CELT Technical Report CELT-07-06, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
15. Atman, C.J., Borgford-Parnell, J., Deibel, K., Kang, A., Ng, W.H., Kilgore, D., and Turns, J. (2007). *DTRS7 Procedural Report*. Technical Report CELT-07-04, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
16. Deibel, K., Atman, C.J. Ng, W.H., and Saleem, J. (2007). *Cascade Pile Sort Analysis of Freshman, Senior, and Expert Timelines*. Technical Report CELT-07-03, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
17. Cardella, M. E., Atman, C.J., Turns, J., and Adams, R. (2006). *Four Examples: the Teaching Challenge of Students with Varying Initial Design Abilities*. Technical Report, CELT-06-09. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
18. Atman, C.J., Adams, R., Turns, J., Mosborg, S., Cardella, M. E., and Saleem, J. J., (2006). *Design Timeline Representations of Expert Engineering Practitioners*. Technical Report CELT-06-08. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
19. Atman, C.J., (2006). *Design Timeline Representations of Engineering Faculty and Undergraduate Students*. Technical Report CELT-06-07. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
20. Mosborg, S., Cardella, M.E., Saleem, J., Atman, C.J., Adams, R. S., Turns, J., and Deibel, K. (2006). *Engineering Design Expertise Study*. Technical Report CELT-06-01, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
21. Cardella, M. E., Turns, J., Atman, C.J., Adams, R., and Rhone, E. (2003). *Detailed Descriptions of the Design Processes of Four Engineering Educators*. Technical Report CELT-03-01, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
22. Adams, Robin S., Valeriano, M., Turns, J., and Atman, C.J. (2001). *Industrial Engineering Pitt Concept Mapping Project: Findings from Phase I*. Technical Report CELT-01-09, Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.

23. Turns, J., Atman, C.J., and Bennett, J. (2001). *Assessing Student Preparedness for Professional Engineering Practice: A Professional Advice Task*. Technical Report CELT-01-08. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
24. Lewis, C. D., Adams, R.S., Punnakanta, P., Littleton J., and Atman, C.J. (2001). *Assessing Engineering Design Performance and Teamwork: Cross-validating Written Self-Reports and Performance Observations*. Technical Report CELT-01-07. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
25. Atman, C.J., and Turns, J. (2001). *Relating Findings from the Learning Sciences to Engineering Education*. CELT Technical Report CELT-01-06. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
26. Horn, Monica, Turns, J., Atman, C.J., and Adams. R.S. (2001). *Senior Follow-up Data Analysis*. Technical Report #006. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
27. Rhone, E., Turns, J., Atman, C.J., Adams. R.S., Chen, YiMin, and Bogusch, L. (2001). *Analysis of Senior Follow-up Data: The Midwest Floods Problem-Addressing Redundancies in Coding*. Technical Report #005. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
28. Bogusch, L., Turns, J., and Atman, C.J. (2001). *Analysis of Senior Follow-up Data: The Midwest Floods Problem*. Technical Report #004. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.
29. Safoutin, M.J., Atman, C.J., and Adams, R.S. (1999). *The Design Attribute Framework*. Technical Report 99-01. Seattle, WA: Center for Engineering Learning and Teaching, University of Washington.

Manuscripts in Preparation

1. Atman, C.J., Deibel, K., Borgford-Parnell, J. "Representations as Tools for Discovery: Insights for Researchers, Students, and Educators." In preparation to be submitted to *Journal of Engineering Design*.

Other

1. Shuman, L., Atman, C.J., and Gottfried, B. S., "The Freshman Engineering Experience: Two Courses and Assessment Methodology," ABET Conference Proceedings, November 1996.
2. Atman, C.J., and Bostrom, A., "Risk Research: Back to the Basics," National Association of Professional Environmental Communicators, vol. 3, no. 2, 1992.
3. Atman, C.J., "Math, Science and Technology Education Project Design Proposal," Agency for International Development, August 1991.
4. Atman, C.J. and Fischhoff, B., "Choosing Formats for Written Communication of Technical Information," IIE Integrated Systems Conference & Society for Integrated Manufacturing Conference Proceedings, Atlanta, GA, November 1989.

5. Atman, C.J., "Tables or Graphs? Applicability of GOMS Models to Issues of Display Design," EPP Tech Report, Carnegie Mellon University, January 1988.

Other significant research dissemination (popular press, websites, software, Wikis, etc.)

1. "Not What Students Need." An article based on an interview with Cynthia J. Atman and Sheri Sheppard about the results of the Academic Pathways Study in *Prism Magazine*, by Mary Lord on January 2010, 19(5):44-46.
2. "National study identifies range of opportunities to improve engineering education." NSF Press Release on the CAEE Final Report can be found and cited at the following sites:
 - *PRISM* Magazine, mentioned in February 2011 issue. Available online at: http://www.prism-magazine.org/feb11/last_word.cfm
 - CASEE/NAE Website, February 22, 2011. Available online at: <http://www.nae.edu/21702.aspx>
 - Transforum enewsletter, November 2010. Available online at: <http://www.transoftsolutions.com/Newsletter/Detail/1010education>
 - Minnesota Center for Engineering & Manufacturing Excellence (MNCEME.org). November 4, 2010. Available online at: <http://www.transoftsolutions.com/Newsletter/Detail/1010education>
 - ASEE "In the News", October 25, 2010. Available online at: <http://www.asee.org/papers-and-publications/news-and-surveys/news/news-archive/2010>
 - CENews.com, October 21, 2010. Available online at: http://www.cenews.com/search_range_of_opportunities.html
 - E! Science News, October 15, 2010. Available online at: http://esciencenews.com/archive/press_release/2010/10/15
 - ASEE *Connections* Newsletter, October 16, 2010. Available online at: <http://www.asee.org/papers-and-publications/blogs-and-newsletters/connections/2010October.html>
 - Education Research Report, October 16, 2010. Available online at: http://educationresearchreport.blogspot.com/2010_10_01_archive.html
 - Organized Wisdom, October 15, 2010. Available online at: <http://organizedwisdom.com/CAEE-Final-Report/wt/med>
 - University of Washington, "Washington Engineer" E-Newsletter, October 14, 2010. Available online here: http://www.engr.washington.edu/news/enews/1010_wa_engr.html
 - Physorg.com, October 15, 2010. Available online at: <http://www.physorg.com/news/2010-10-national-range-opportunities.html>
 - ScienceBlog.com, October 15, 2010. Available online at: <http://scienceblog.com/39353/national-study-identifies-range-of-opportunities-to-improve-engineering-education/>
 - ScienceDaily.com, October 15, 2010. Available online at: <http://www.sciencedaily.com/releases/2010/10/101015185838.htm>
 - NSF Website, October 7, 2010. Available online at: http://www.nsf.gov/news/news_summ.jsp?cntn_id=117872&org=EHR&from=news
 - CAEE Website, October 7, 2010. Available online at: <http://www.engr.washington.edu/caee/>
 - University of Washington's Civil & Environmental Engineering website, October 5, 2010. Available online here: http://www.prism-magazine.org/feb11/last_word.cfm

3. Atman, C.J., "Cindy Atman on Critical Research." YouTube video presentation for the ASEE Annual Conference, June 2008. Available online at: http://www.youtube.com/watch?v=PGE9vrkOI_Y
4. Atman, C.J., Borgford-Parnell, J., and Deibel, K., "The CELT Model: From Research to Teaching and Back Again." YouTube video presentation for the 2008 CASEE Webinar, October 2008. Available online at: <http://www.youtube.com/watch?v=GrQRp2FQ7oM>

OTHER SCHOLARLY ACTIVITY

Invited presentations and seminars (*In addition to Keynote Addresses*)

1. Atman, C., Design & Innovation, Invited presentation at the World Engineering Education Forum, Kuala Lumpur, Malaysia, November, 2017.
2. Invited Speaker. Atman, C.J. (2016). "Doing (and Reflecting On) Design: A Productive Pairing." Engineering Education Graduate Student Speaker Series, Purdue University, West Lafayette, IN, March 24, 2016
3. Invited Speaker. Atman, C.J. (2015). "Talking engineering education to policy makers." Building Capacity Workshop, National Science Foundation, Washington D.C., March 12, 2015.
4. Invited Speaker. Atman, C.J. (2014). "Making Sense of Engineering Design: Seeing, Hearing, and Learning." Program of Research on Opportunities and Challenges in Engineering Education in Denmark (PROCEED). Aalborg University, Aalborg, Denmark. April 3, 2014.
5. Sabelli, N., Change, B., Richey, M., Atman, C., Turns, J. "Engineering Socio-Technical Systems and Workforce Innovation: Understanding Internal and External constraints on Engineering Education as a Complex Adaptive System." Invited proposal to NSF's biennial competition for proposal ideas in the Emerging Frontiers in Research and Innovation (EFRI) Program. Proposal submitted: August 2012; short written paper submitted: November 2012; Presentation to panel, Arlington, VA, January 9, 2013. Proposal declined.
6. Atman, C.J. "Possible Future of Engineering Education; Context, Perspective, and Possibilities." Invited Speaker in strategic direction meeting: NSF's Division of Engineering Education and Centers (EEC): A Disruptive Future for Engineering Education, August 8, 2012.
7. Atman, C.J. "Studying Engineering Student Design Processes: Two Views of Context" Invited speaker at the Engineering Education Graduate Research Seminar via Webcast, April 2012. Involving Purdue University, Utah State University, Virginia Tech, and Colorado State University.
8. Atman, C.J., "Developing Design-Related Teaching Goals," National Academy of Engineering's First Frontiers of Engineering Education (FOEE) Symposium, Herndon, VA, November 2009.
9. Atman, C.J., "Creating Engineering Education Opportunities: Campus-Based Centers." Invited presentation at the National Symposium on Creating Engineering Education Opportunities: Why and How, Arlington, VA, March 2009.

10. Atman, C.J., Finelli, C., Fortenberry, N., and Haghighi, K., "Engineering Education Centers & Departments as Drivers of Change Workshop." Invited panelist, American Society for Engineering Education Conference, Pittsburgh, PA, June 2008.
11. Atman, C.J., "CAREER Awards with a Focus on Engineering Education Research." Invited panelist, American Society for Engineering Education Conference, Pittsburgh, PA, June 2008.
12. Atman, C.J., "Undergraduate Pathways to Engineering: Insights from a Longitudinal Study." Invited speaker, Engineering Education Research Center, Washington State University, Pullman, WA, April 2008.
13. Kilgore, D., Atman, C.J., Kang, A., and Deibel, K., "Undergraduate Engineering Students' Information Gathering Behaviors During Design." Abstract presented at the Center for the Integration of Science Education & Research (CISER) Conference: On Being an Engineer, Texas Tech University, Lubbock, TX, February 2008.
14. Atman, C.J. and Borgford-Parnell, J., "Learning Science Research Applied to Engineering," Invited workshop, INFORMS 2007 Teaching Effectiveness Colloquium, Seattle, WA, November 2007.
15. Sheppard, S., Atman, C.J., Courter, S., and Eris, O., "Research on Engineering Education: theory informing practice, informing theory." Invited keynote co-presenter, American Society of Mechanical Engineers International Mechanical Engineering Education Conference, Coronado, PR, March 2007.
16. Atman, C.J., "Solving Design Problems: A Comparative Study of Engineering Student, Faculty, and Expert Practitioner Design Processes," Open University, London, UK, November 2006.
17. Atman, C.J., "Solving Design Problems: A Comparative Study of Engineering Student, Faculty, and Expert Practitioner Design Processes," University of Kent, Canterbury, UK, September 2006.
18. Atman, C.J., "Describing and Doing Design: Multiple Views of Student and Expert Engineering Designers," Arizona State University, Tempe, AZ, January 2007.
19. Atman, C.J., "Portraying Engineering Design Expertise: Empirical Insights". Invited Keynote Address, First International Computing Education Research Workshop. Seattle, WA, October 2005.
20. Atman, C.J. and Cardella, M. E., "Engineering Learning Research at the Center for Engineering Learning and Teaching" Invited presentation at the American Society for Engineering Education Mathematics and Physics Division Luncheon, Portland, OR, June 2005.
21. Atman, C.J., and Turns, J., "Learning Engineering" Invited presentation at the NSF Research, Evaluation and Communication series on Research on Learning in the Disciplines, Washington, DC, April 2005.
22. Atman, C.J., and Lund, D., "Center for the Advancement of Engineering Education," Invited presentation at the American Society of Engineering Education Regional Conference, Seattle, WA, April 2004.

23. Atman, C.J., Turns, J., Fleming, L., Mathieu, B., "Looking at Learning", Invited workshop at the Course, Curriculum & Laboratory Improvement Conference, Arlington, VA, April 2004.
24. Atman, C.J., "Research Culture for Graduate Students", Invited panelist at the American Society of Engineering Education Conference Proceedings, Salt Lake City, UT, June 2004.
25. Atman, C.J., Adams. R. S. and Turns, J., "Building Capacity in Engineering Education," Invited talk, University of Queensland, Brisbane, Australia, November 2003.
26. Atman, C.J., "How to Improve Engineering Student Learning", Invited Presentation, American Society for Engineering Education, Engineering Deans Institute, Santa Monica, CA, March 2003.
27. Atman, C.J., Felder, R., and Turns, J., "How People Learn Engineering: Two Examples and a Call to Action", Invited presentation to the National Academy of Engineering Retreat on Engineering Education Research Center, Washington, DC, January 2002.
28. Atman, C.J., "What Do Engineering Students Know?" Invited Keynote Address, Innovation and Technology in Computer Science Education, Canterbury, England, June 2001.
29. Atman, C.J., "Student Learning in Engineering and Design", Invited presentation, Department of Design and Innovation, The Open University, Milton Keynes, England, June 2001.
30. Atman, C.J., Adams. R.S., Safoutin, M., and Turns, J., "Unpacking Design: Four Directions to Understand Engineering Student Design Processes," Invited presentation, Center for Design Research, Stanford University, Stanford, CA, October 1999.
31. Atman, C.J. and Turns, J., "Engineering Student Learning: Research in 'Design' and 'Knowledge Integration'," Invited presentation, Stanford Learning Lab, Stanford University, Stanford, CA, October 1999.
32. Atman, C.J. and Turns, J., "Studying Engineering Design Learning: A Case Study in the Application of Protocol Analysis and the Development of Measures," Invited presentation at the conference on Knowing and Learning to Design, Georgia Institute of Technology, Atlanta, GA, April 1999.
33. Atman, C.J., "Engineering Student Design Processes," Invited presentation, Learning Research and Development Center, University of Pittsburgh, Pittsburgh, PA, April 1998.
34. Atman, C.J., "Engineering Student Learning," Invited workshop presentation at the NASA Administrators Fellowship Program, National Research Council, December 1997.
35. Atman, C.J., Invited presentation at the NSF Division of Undergraduate Education Program Effectiveness Review, November 1997.
36. Atman, C.J., "Using Verbal Protocol Analysis to Assess Student Design Learning," Invited presentation at the NSF workshop on Design Education, Georgia Institute of Technology, Atlanta, GA, September 1997.

37. Atman, C.J., "Process Knowledge and Prior Knowledge: Some Assessment Challenges," Invited workshop presentation at the NSF Engineering Education Scholars Workshop, Carnegie Mellon University, Pittsburgh, PA, July 1997.
38. Atman, C.J., "Assessment in Engineering Education," Invited workshop presentation at the American Association of Environmental Engineering Education and Practice Conference, August 1996.
39. Atman, C.J., Leifer, L., Miller, R., and Olds, B., "Innovative Assessment Opportunities," A National Technological University Satellite broadcast to the U.S. engineering education community on November 14, 1995. Number of sites: 152 engineering schools, audience size: 1167.
40. Atman, C.J., "The Problem of Problem Solving," Invited presentation at the NSF Workshop on Assessment for Engineering Coalition schools, July 1995.
41. Atman, C.J., Indira, N., and Nachtmann, H., "Do Engineers and Humanities Majors Perceive STS Issues Differently?" Invited presentation, Bucknell University, Lewisburg, PA, October 1994.
42. Atman, C.J., "Risk Communication," Invited seminar speaker, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, September 1994.

Special Sessions, Symposia, Panels, and Presentations at Conferences without Papers.

1. Bailey, R., Atman, C., Doepker, P., Kraus, G., McKenna, A.. (2017) Panel honoring the contribution of Clive Dym to Engineering Design Education, American Society of Engineering Education Conference, Columbus, Ohio, June, 2017.
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3. Atman, C.J., Sheppard, S.D., Turns, J., Yasuhara, K., Brunhaver, S., Korte, R., Lichtenstein, G., Matusovich, H., et al. "Discovering Implications of the Academic Pathways Study for your Campus." In proceedings of the American Society for Engineering Education Annual Conference, Vancouver, B.C., June 2011.
4. Atman, C.J., Adams, R.S., Paretto, M., & Trenor, J.. Consortium in Engineering Education Panel Discussion, Educational Research & Methods Division. In proceedings of American Society for Engineering Education Annual Conference, Louisville, KY, June 2010.
5. Atman, C.J., Kilgore, D., and Yasuhara, K., "Sustainability and Social Responsibility: Assessing Engineering Students' Consideration of Context", Engineering, Social Justice, and Peace Conference, London, England, August 2010.
6. Atman, C.J., Chachra, D., Yasuhara, K., Turns, J., Sheppard, S., Kilgore, D., Fleming, L., Miller, R., Smith, K., Stevens, R., and Streveler, R. "Linking Research Findings on Engineering Student Learning and Engineering Teaching: Implications for Engineering Education", ASEE Pacific Northwest Regional Conference, Seattle, WA, November 2008.
7. Atman, C.J., Fleming, L., Kilgore, D., Miller, R., Sheppard, S., Smith, K., Stevens R., Streveler, R., and Turns, J., "Special Session – Linking Research Findings on Engineering Student Learning and Engineering Teaching: Implications for Engineering Education." In proceedings of the Frontiers

in Education Annual Conference, Saratoga Springs, NY, October 2008. *This was a presentation that included an abstract.*

8. Atman, C.J., Kilgore D., Eris, O., Fleming, L., Miller, R.L., Sheppard, S.D., Smith, K., Stevens, R., Streveler, R., Amos, D.M., Bailey, T., Chachra, D., Chen, H., Donaldson, K., Geist, M., Jones, M., Korte, R., Ledbetter, S., Lichtenstein, G., Loshbaugh, H., Loucks, C., Lund, D., Matusovich, H., McCain, J., Morozov, A., Taylor, A., Turns, J., Williams, D., and Yasuhara, K., "Special Session – Academic Pathways Study: Special Interactive Session on Findings and Implications for Engineering Education and Practice," Frontiers in Education Conference, Milwaukee, WI, October 2007. *This was a presentation that included an abstract.*
9. Adams, R.S., Nakamura, R., and Atman, C.J., "What Makes a Good Freshmen Research and Design Project?" American Society for Engineering Education Conference, Albuquerque, NM, June 2001.
10. Adams, R.S., Lidstrom, M., Atman, C.J., Olson, A., Nelson, K., and Turns, J., "Teaching a Biological Perspective to Engineers," American Educational Research Association, Seattle, WA, April 2001.
11. Turns, J. and Atman, C.J., "Concept Map Use in Course-Level and Program-Level Assessment," American Society for Engineering Education Conference, St. Louis, MO, June 2000.
12. Scott, C., Turns, J., and Atman, C.J., "Learning About Engineering Design Through an Examination of Student Design Strategies," American Society for Engineering Education Conference, St. Louis, MO, June 2000.
13. Atman, C.J. and Turns, J., "Characterizing Engineering Student Design Processes – A Within Subjects Verbal Protocol," American Society for Engineering Education Conference, St. Louis, MO, June 2000.
14. Shuman, L., Besterfield-Sacre, M., Wolfe, H., Atman, C.J., McGourty, J., Miller, R., Olds, B., and Rogers, G., "Defining the Outcomes: A Bloom's Taxonomy Approach to EC 2000," American Society for Engineering Education National Conference, Charlotte, NC, June 1999.
15. Turns, J., Atman, C.J., and Sidiadinoto, I., "Students Use of Functional, Behavioral and Structural Terms to Describe Artifacts During Design." American Society of Engineering Education Conference, Charlotte, NC, June 1999.
16. Atman, C.J., Chimka, J., and Bursic, K., "Results From a Verbal Protocol Study of the Design Process," Frontiers in Education Conference, Pittsburgh, PA, November 1997.
17. Besterfield-Sacre, M.E., Atman, C.J., and Shuman, L.J., "A Cross Institutional Comparison of Freshman Engineering Attitudes," Frontiers in Education Conference, Pittsburgh, PA, November 1997.
18. Besterfield-Sacre, M., Atman, C.J., Shuman, L., and Wolfe, H., "Outcomes Assessment Using Questionnaires, Protocols and Empirical Models: Pilot Study Results," NSF sponsored Best Assessment Processes in Engineering Education Symposium, Terra Haute, IN, April 1997.

19. Besterfield-Sacre, M.E., Shuman, L., and Atman, C.J., "Engineering Student Attitudes Assessment," NSF sponsored Best Assessment Processes in Engineering Education Symposium II, Terra Haute, IN, April 1997.
20. Atman, C.J., "What Diagrams Do Readers Prefer in Risk Communications?" Annual Society for Risk Analysis Conference, December 1995.
21. Bostrom, A. and Atman, C.J., "Correcting Misconceptions about Global Climate Change: Is a Myth-Fact Box a Good Idea?" Annual Society for Risk Analysis Conference, December 1995.
22. Atman, C.J. and Bursic, K., "How Effective are Textbooks in Teaching the Engineering Design Process?" Frontiers in Education Conference, Atlanta, GA, November 1995.
23. Redfern, M. and Atman, C.J., "Human Factors at the University of Pittsburgh," Three Rivers Chapter of the Human Factors and Ergonomics Society, November 1995.
24. Atman, C.J., Initiatives at the University of Pittsburgh, American Society of Engineering Education Conference Panel on Restructuring Engineering Education, June 1995.
25. Atman, C.J. and Puerzer, R., "Investigating Advantages for Using Schematic Diagrams to Explain Risk Information," Industrial Engineering Research Conference, May 1995.
26. Atman, C.J. and Bostrom, A., "Unconfounding Content and Structure in the Mental Models Approach for Risk Communication Design," Annual Society for Risk Analysis Conference, December 1994.
27. Atman, C.J., "Have You Tried.....Concept Maps?" Frontiers in Education Conference, November 1994.
28. Atman, C.J., "Using Decision Analytic Structures for Risk Communication," Invited Session, Industrial Engineering Research Conference, May 1994.
29. Atman, C.J., "Proposal Writing Workshop," American Society for Engineering Education Conference, June 1993.
30. Atman, C.J., "Comparing Alternative Information Formats for Effective Risk Communication," Invited Session, Industrial Engineering Research Conference, May 1993.
31. Atman, C.J., "STS and the Freshman: A Survey of Humanities and Engineering Freshmen," National Association for Science, Technology, and Society Conference, January 1993.
32. Bostrom, A., Atman, C.J., Fischhoff, B., and Granger, M., "Risk Communication Evaluation: Mental Models and Other Approaches," Annual Society for Risk Analysis Conference, December 1992.
33. Atman, C.J., "Diagrams, Outlines or Text: What Do Readers Like and Remember?" Annual International Visual Literacy Association Conference, October 1992.

34. Atman, C.J., Bostrom, A., Fischhoff, B., and Granger, M., "Developing Effective Risk Communication: Content and Structure," Annual Society for Risk Analysis Conference, December 1991.
35. Atman, C.J., "Using Decision Analytic Tools for Structuring Written Risk Communication," Annual ORSA/TIMS Conference, October 1990.
36. Atman C.J., "Using Protocol Data to Evaluate Risk Communication: An Indoor Radon Example," Fifth International Conference on the Foundation and Applications of Utility, Risk, and Decision Theories, June 1990.

Classroom Presentations

1. Borgford-Parnell, J., Deibel, K., and Atman, C.J., "Successful Design Processes: Some Research Perspectives," Mechanical Engineering Design (ME 495) April 2009.
2. Atman, C.J. and Borgford-Parnell, J., "Engineering Design Processes," Aerospace Structures (AA 332), taught by Dr. Paolo Passolini's, April 18, 2008. This presentation includes a follow-up quarter-long activity to help students record and monitor their design processes.
3. Atman, C.J. and Borgford-Parnell, J., "How Prepared Are You? Compare Your Engineering Skills with Other Graduating Seniors," Materials Engineering II (MSE 492), taught by Dr. Brian Flinn, February 2008.

Full Workshops Delivered

1. Turns, J. and Atman, C.J., "Reflection in Engineering Education Workshop". Sixty participants from across the U.S. attended a 1.5 day workshop sponsored by the Consortium to Promote Reflection in Engineering Education, Seattle, WA, September 14 & 15, 2017.

Workshops Presentations

1. Atman, Cindy (2017) Doing and Teaching DesignL Incorporating Research Results in Design Activities. Workshop a Universiti Teknologi Malaysia, Johore Bahru, Malaysia, November, 2017.
2. Atman, Cindy (2017) Creating reflection activities for engineering education. Workshop a Universiti Teknologi Malaysia, Johore Bahru, Malaysia, November, 2017.
3. Turns, Jennifer; Atman, Cindy (2017) Creating reflection activities for engineering education. Workshop at the World Engineering Education Forum, Kuala Lumpur, Malaysia, November, 2017.
4. Atman, C., Turns, J., Yasuhara, K., Allendoerfer, C. (2017) Engineering Education Career Pathways: Looking Back to Look Forward, NSF EEC PI meeting, Washington DC, September, 2017)
5. Bailey, Reid; Adams, Robin; Turns, Jennifer; Atman, Cindy. (2017) Admissions of a Dutiful Design Educator: Aiming Engineering Design Research at Areas Where Students Struggle. Workshop at Annual Conference of the American Society for Engineering Education, Columbus, Ohio, June 2017.
6. Turns, J., Atman, C.J., Thomas, L. D., & Shroyer, K. "The Productive Pause: Practical Strategies for Incorporating Reflection in Engineering Education." Crossing Boundaries: Transforming STEM Education, AAC&U 2015 Network for Academic Renewal STEM Conference, Seattle, WA, November 12, 2015.

7. Turns, J., Atman, C.J., Sattler, B., & Thomas, L.D. "Promoting Reflection and Reflection Activities in Engineering Education." 2015 American Society of Engineering Education Annual Conference and Exposition, Seattle, WA, June 14, 2015.
8. Atman, C.J., "Engineering Education Research: A Short History and Two Examples." 2011 International Network for Engineering Studies (INES)/Prometheans Workshop, Cleveland, OH, November 2, 2011.
9. Atman, C.J., Deibel, K., Borgford-Parnell, J., Yasuhara, K., "Developing Design Process: Comparing Student and Expert Engineers." 2012 Engineering Practice Roundtable, Madrid, Spain, October 8, 2011.
10. Atman, C.J., Kilgore, D., Turns, J., Yasuhara, K., "Discovering Implications of the Academic Pathways Study for Women on YOUR Campus." 2011 WEPAN Conference, Seattle, WA, June 21-23, 2011.
11. Atman, C.J. & Sheppard, S., "A Conversation about Change in Teaching Engineering: Insights from the Academic Pathways Study." MUDD Design Workshop VIII, "Design Education: Innovation and Entrepreneurship", May 26-28, 2011, Claremont, CA, Harvey Mudd College.
12. Borgford-Parnell, J., Atman, C.J., and Deibel, K., "Bringing Design Research into Engineering Classrooms," ASEE Pacific Northwest Regional Conference, Seattle, WA, November 2008.
13. Atman, C.J. , Chachra, D., Yasuhara, K., Turns, J., Sheppard, S., Kilgore, D., Fleming, L., Miller, R., Smith, K., Stevens, R., and Streveler, R., "Linking Research Findings on Engineering Student Learning and Engineering Teaching: Implications for Engineering Education," Pacific Northwest Regional Conference of the American Society for Engineering Education, Seattle, WA, November 2008.
14. Yasuhara, K., Woods, S., Loshbaugh, H.G., Matusovich, H., Chachra, D., Chen, H., Donaldson, K., Eris, O., Kilgore, D., Morozov, A., Sheppard S., Atman, C.J., Miller, R., and Streveler, R. "Bridging Research and Practice: What does the Academic Pathways Study tell us about women and engineering education?" 2008 WEPAN National Conference, St. Louis, MO, June 2008.
15. Atman, C.J. & Yasuhara, K. "Bridging Research and Practice: What does the Academic Pathways Study tell us about women and engineering education?" Interactive workshop with abstract presented at the 2008 WEPAN National Conference, St. Louis, MO, June 2008.
16. Atman, C.J., and Kilgore, D., "Interactive Session with the Center for the Advancement of Engineering Education Researchers." NAE/CASEE Dane and Mary Louise Miller Symposium, Milwaukee, WI, October 2007.
17. Atman, C.J. , Fleming, L., Smith, K., Streveler, R., Turns, J., Kilgore, D., Matusovich, H., and Jocuns, A., "Using Research Results to Advance the Field of Engineering Education and Practice," NAE/CASEE Dane and Mary Louise Miller Symposium, Milwaukee, WI, October 2007.

18. McGovern, V., Atman, C.J., Augenbraun, E., Stith, A., and Taylor, C., "Multiple Career Pathways", American Association for the Advancement of Science Annual Meeting, St. Louis, MO, February 2006.
19. Atman, C.J., Turns, J., and Fleming, L., "Learning Science Research Applied to Engineering," American Society for Engineering Education Workshop, Portland, OR, June 2005.
20. Atman, C.J., Barker, T., Cardella, M., and Mosborg, S., "Looking at Research on Learning: an Interactive Workshop," University of Washington College of Engineering TA Workshop, Seattle, WA, September 2004.
21. Sheppard, S., Atman, C.J., Adams, R.S., and Richardson, C., "What Do We Know About our Engineering Students," Frontiers in Education Conference, Boston, MA, November 2002.
22. Turns, J., Adams, R.S., Martin, J., Linse, A., and Atman, C.J., "Design Education Workshop: Connecting Research and Practice", American Society for Engineering Education Annual Conference, Montreal, Canada, June 2002.
23. Denton, D., Atman, C.J., and Linse, A., "Faculty Recruitment and Professional Development," Engineering Deans Institute Conference, March 2001.
24. Olds, B., Shuman, L.J., Wolfe, H., Besterfield-Sacre, M., McGourty, J., Miller, R., Atman, C.J., and Rogers, G., "A Baker's Dozen Assessment Methods and Their Strengths and Weaknesses," NSF-Best Assessment Practices III. Rose-Hulman Institute of Technology, Terra Haute, IN, April 2000.
25. Atman, C.J., and Turns, J., "Concept Maps for Assessment in Engineering Education," Rose-Hulman Institute of Technology, Best Assessment Processes III Conference, Terre Haute, IN, April 2000.
26. Sheppard, S., Atman, C.J., Carlson, L., Crawley, E., Eibeck, P., Frey, D., Marchese, A., Richards, D., Sullivan, J., Waitz, I., Van Duzer, E., "Innovations in Engineering Education: What Makes Innovation Possible and Sustainable," Frontiers in Education Conference, April 2000.
27. Besterfield-Sacre, M., Shuman, L., Wolfe, H., Atman, C.J., McGourty, J., Miller, R., Olds, B., and Rogers, G., "EC 2000 Attributes: Definition and Use," Frontiers in Education Conference, November 2000.
28. Atman, C.J., Besterfield-Sacre, M., McGourty, J., Miller, R., Olds, B., Rogers, G., Shuman, L., Turns, J., and Wolfe, H., "Assessment Methods for Addressing EC 2000: An Introduction to Program Assessment," Frontiers in Education Conference, San Juan, Puerto Rico, November 1999.

Poster Sessions

1. Atman, C.J., Borgford-Parnell, J., Adams, R.S., Cardella, M., Deibel, K., & Turns, J.A. (2015). *Design Educators and Design Representations: Exploring Intersections Across Doing, Seeing, Hearing and Teaching Design*. Mudd Design Workshop IX. Claremont, CA. May 28-30, 2015

2. Yasuhara, K., Atman, C.J., Kilgore, D., Campbell, R.C., Anukrati, A., & Krause, K., "How Much do Engineering Students Consider the Context of Design Problems?" Poster presented at the NSF Engineering Education Awardees Conference, Arlington, VA, March 2012. Also presented by Kristina Krause at the UW Teaching & Learning Symposium, April 17, 2012.
3. Campbell, R.C., Yasuhara, K., Chen, H., Haase, S., Lande, M., Atman, C.J., & Sheppard, S.D., "Engineering Design in Context: Breadth of Concerns." Poster presented at the NSF Engineering Education Awardees Conference, Arlington, VA, March 2012. Also Presented by Ryan Campbell at the UW Teaching & Learning Symposium, April 17, 2012.
4. Atman, C.J., Kilgore, D., Yasuhara, K., Turns, J.A., & Borgford-Parnell, J., "Assessing Students' Consideration of Context in Engineering Design." Poster presented by Ken Yasuhara at the NSF Engineering Education Awardees Conference, Reston, VA, February 2010.
5. Atman, C.J., Adams, R., Fleming, L., Miller, R., & Smith, K., "Current Activities of the Center for the Advancement of Engineering Education." Poster presented at the NSF Engineering Education Awardees Conference, Reston, VA, February 2010.
6. Turns, J.A., Kilgore, D., Atman, C.J., & Sattler, B., "Promoting Life-Long learning, Integrated Knowledge, and Professional Identity in the Undergraduate Engineering Students through a Portfolio Development Process." Poster presented at the NSF Engineering Education Awardees Conference, Reston, VA, February 2010.
7. Atman, C.J., "Findings from the Center for the Advancement of Engineering Education." Poster presented at the University of Washington Teaching and Learning Symposium, Seattle, WA, April 2009.
8. Atman, C.J., Yasuhara, K., Kilgore, D., and Morozov, A., "Considering context in engineering: Snapshots from the undergraduate years." - NSF Grant Award #0835836. Poster presented at the NSF REESE PI Meeting, Washington, D.C., February 2009.
9. Atman, C.J., Borgford-Parnell, J., Kilgore, D., Deibel, K., and Saleem, J., "Engineering in Context: Investigations into How Experts and Students Incorporate Global and Societal Issues in Their Engineering Design Processes." - NSF Grant Award #0639895. Poster presented at the NSF Engineering Education Centers Grantees meeting, Reston, VA, February 2009.
10. Atman, C.J., Kilgore, D., Ng, W.H., Kang, A., Morozov, A., & Deibel, K., "Engineering in Context: Investigations into how students and experts incorporate global and societal issues in their engineering design processes." Poster presented at the NSF Engineering Education Awardees Conference, Arlington, VA, September 2007.
11. Turns, J., Adams, R. S., Atman, C.J. & Cardella, M. E., "Moving from research to practice in undergraduate engineering design education." Poster presented at the International Conference for the Learning Sciences, Seattle, WA, October 2002.
12. Tanimoto, S., Adams, R. S., Atman, C.J., Hunt, E., & Winn, W., "Unobtrusive assessment in online learning: Methodology and tools." Poster presented at the International Conference for the Learning Sciences, Seattle, WA, October 2002.

13. Temple, J., Vuong, B., Chin J., and Christensen, J., and Atman, C.J. as Faculty Sponsor. "An Application of Verbal Protocol Analysis to Engineering Design." University of Washington Undergraduate Research Fair, Seattle, WA, 2000.
14. Atman, C.J., & Turns, J., "Engineering Student Design Processes: Four Verbal Protocol Studies," Poster session for the National Science Foundation Research on Education, Policy and Practice PI Meeting, June 1999.
15. Atman, C.J. , Bursic, Karen M., Byron S. Gottfried, John F. Patzer, & Shuman, Larry J., "Engineering Education Research," Poster session for the University of Pittsburgh School of Engineering Research Fair, May 1996.
16. Mullins, Carie & Atman, C.J., "Understanding Freshman Problem Solving," Poster session for the University of Pittsburgh School of Engineering Research Day, April 1994.
17. Puerzer, Richard, Atman, C.J., & Chris Yarsky, "Developing Effective Written Risk Communication," Poster session for the University of Pittsburgh School of Engineering Research Day, April 1994.
18. Atman, C.J. & Baruch Fischhoff, "The Impact of Format on Recall of Written Risk Information," Poster session at the Annual Society for Risk Analysis meeting, Dec 1992.