

Curriculum Vitae (Abbreviated)

BRENT K. JESIEK, Ph.D.

School of Engineering Education
School of Electrical and Computer Engineering
Purdue University, 701 West Stadium Avenue, West Lafayette, IN 47907
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CURRENT POSITIONS

Professor, August 2021 – Present
School of Engineering Education
School of Electrical and Computer Engineering
Purdue University – West Lafayette, IN

Director, 2021 – Present
National Institute for Engineering Ethics (NIEE)
Purdue University – West Lafayette, IN

PRINCIPLE AREAS of RESEARCH INTEREST and EXPERTISE

- Social and historical studies of engineering, engineering education, and computing
- Professional ethics and social responsibility
- Global/international engineering education

EDUCATION

Doctor of Philosophy, Science and Technology Studies (STS), December 2006
Virginia Polytechnic Institute and State University (Virginia Tech) – Blacksburg, VA

- Dissertation: “Between Discipline and Profession: A History of Persistent Instability in the Field of Computer Engineering, circa 1951-2006” (Chair: Gary L. Downey)

Master of Science, Science and Technology Studies, May 2003
Virginia Polytechnic Institute and State University (Virginia Tech) – Blacksburg, VA

Bachelor of Science, Electrical Engineering (Computer Engineering Option), February 1998
Michigan Technological University – Houghton, MI

HONORS (selected)

Best Diversity Paper Award, Engineering Ethics Division (with Qin Zhu)
2017 ASEE Annual Conference and Exposition – Columbus, OH, June 25-28, 2017

2016 Award for Excellence in Mentoring
School of Engineering Education, Purdue University – West Lafayette, IN

NSF CAREER Award (2013-2018)
National Science Foundation (NSF) – Arlington, VA

Ben Dasher Best Paper Award (with Robin S. Adams and Alice Pawley)
2012 Frontiers in Education Conference – Seattle, WA, October 3-6, 2012

2008 and 2010 Outstanding Teacher Award in the School of Engineering Education
School of Engineering Education, Purdue University – West Lafayette, IN

2007 Outstanding Dissertation Award – Social Sciences and Humanities
Graduate School, Virginia Tech – Blacksburg, VA

GRANTS and FUNDED RESEARCH (projects initiated 2015 to present)

Co-Principal Investigator, March 2021 - February 2024 (est.)
“Collaborative Research: Research: Intersections between Diversity, Equity, and Inclusion (DEI) and Ethics in Engineering,” NSF 2027519, \$349,516.

Co-Principal Investigator, February 2021 – January 2024 (est.)
“Developing and Analyzing an Online Cultural Mindset Module for Improving Multicultural Engineering Team Effectiveness,” NSF 2044390, \$299,974.

Principal Investigator, August 2020 - July 2023 (est.)
“Collaborative Research: Early Career Engineers' Views of Ethics and Social Responsibility: Trends, Influences, and Contexts,” NSF 2024301, \$174,983.

Principal Investigator, January 2020 - December 2022 (est.)
“Collaborative EAGER: Novel Ethnographic Investigations of Engineering Workplaces to Advance Theory and Research Methods for Preparing the Future Workforce,” NSF 1939272, \$183,472.

Co-Principal Investigator, June 2018 - May 2020
“Collaborative Conference: Research on Engineering Practice: Catalyzing a Scholarly Community,” NSF 1833113, \$7,726.

Principal Investigator, October 2017 - September 2021
“Collaborative Research: EAGER - Developing a Consortium Model for the Successful Implementation of the Rising Engineering Education Faculty Experience (REEFE),” NSF 1743666, \$35,767 (subcontract with University of Tennessee Knoxville).

Principal Investigator, May 2015 - April 2021
“Collaborative Research: Foundations of Social and Ethical Responsibility Among Undergraduate Engineering Students: Comparing Across Time, Institutions, and Interventions,” NSF 1449479, \$282,915.

PREVIOUS ACADEMIC and PROFESSIONAL APPOINTMENTS

Chair, Graduate Committee, August 2016 - December 2021
School of Engineering Education, Purdue University – West Lafayette, IN

Associate Professor, August 2014 - August 2021
School of Engineering Education, Purdue University – West Lafayette, IN

Associate Director, August 2011 – August 2016
Office of Global Engineering Programs (GEP), Purdue University – West Lafayette, IN

Assistant Professor, August 2008 - August 2014
School of Engineering Education, Purdue University – West Lafayette, IN

Programmer/Analyst, July 1998 - December 2000
East Jordan Iron Works, Inc. – East Jordan, MI

TEACHING EXPERIENCE (Purdue University only)

Graduate Coursework – School of Engineering Education, Purdue University – West Lafayette, IN

- Foundations of Engineering Education (ENE50101, 3 cr), Fall 2022

- Globalization and Engineering (ENE55400, 3 cr), Spring 2017 (co-instructor), Spring 2019 (co-instructor), Spring 2021
- History and Philosophy of Engineering Education (ENE50200, 3 cr), Fall 2011 (Co-Instructor), Fall 2012, Fall 2013, Fall 2014, Spring 2016, Fall 2016
- Mixed Methods Research in Engineering Education (ENE69500, 1 cr), Spring 2015 (Co-Instructor)
- Social Construction of Knowledge: Actor-Network Theory (ENE59500, 1 cr), Spring 2018

Undergraduate Coursework – College of Engineering, Purdue University – West Lafayette, IN

- Creativity and Innovation in Engineering Design I/II (ENGR195H, Honors, 3 cr), Fall 2009 – Spring 2010
- Engineering Cultures Taiwan (ENGR19500, 3-cr Study Abroad Program), Spring 2017
- Engineering Cultures East Asia (ENGR19500, 3-cr Study Abroad program), Spring 2011, Spring 2013
- Engineering in Global Context (ENGR20100/31000, 3 cr), Spring 2014, Fall 2014, Spring 2015, Spring 2016, Spring 2021
- Engineering Projects in Community Service (EPICS) (EPCS100-400, var cr), Spring 2010 (Co-Instructor)
- Engineering Problem Solving and Computer Tools (ENGR126, 3 cr), Fall 2008
- Global Engineering Practice and Design (ENGR10300, 1 cr), Fall 2011, Fall 2012, Fall 2013, Fall 2014 (all as Co-Instructor)
- Transforming Ideas to Innovation II (ENGR13200, 2 cr), Spring 2011, Spring 2012, Spring 2013, Spring 2015, Spring 2016, Fall 2018, Fall 2019, Spring 2020, Fall 2021, Spring 2022, Fall 2022

PEER-REVIEWED JOURNAL PAPERS

Howland, Shiloh James, Stephanie A. Claussen, **Brent K. Jesiek**, and Carla Zoltowski. (In press). Influences on Undergraduate Engineering Students' Perceptions of Ethics and Social Responsibility: Findings from a Longitudinal Study. *Australasian Journal of Engineering Education*.

Kim, Dayoung, **Brent K. Jesiek**, and Andrea Mazzurco. (2022). Development and Validation of the Sojourn Readiness Assessment (SRA): Exploratory and Confirmatory Factor Analysis and Translation to Chinese. *International Journal of Intercultural Relations*, 88(1): 95-105. <https://doi.org/10.1016/j.ijintrel.2022.04.002>

Howland, Shiloh James, Dayoung Kim, and **Brent K. Jesiek**. (2022). Senior Engineering Students' Reflection on Their Learning of Ethics and Morality: A Qualitative Investigation of Influences and Lessons Learned. *International Journal of Ethics Education*, 7(2): 171-199. <https://doi.org/10.1007/s40889-022-00139-5>

Jesiek, Brent K., Natascha T. Buswell, and Swetha Nittala. (2021). Performing at the Boundaries: Narratives of Early Career Engineering Practice. *Engineering Studies*, 13(2): 86-110. <https://doi.org/10.1080/19378629.2021.1959596>

Kim, Dayoung, **Brent K. Jesiek**, and Shiloh James Howland. (2021). Longitudinal Investigation of Moral Disengagement Among Undergraduate Engineering Students: Findings from a Mixed-Methods Study. *Ethics & Behavior*, 32(8). <https://doi.org/10.1080/10508422.2021.1958330>

Kim, Dayoung, **Brent K. Jesiek**, Carla B. Zoltowski, Michael Loui, and Andrew Brightman. (2020). An Academic-Industry Partnership for Preparing the Next Generation of Ethical Engineers for Professional Practice. *Advances in Engineering Education*, 8(3).

- Jesiek, Brent K.**, Sang Eun Woo, Scott Parrigon, and Caitlin Porter. (2020). Development of a Situational Judgment Test (SJT) for Global Engineering Competency (GEC). *Journal of Engineering Education*, 109(3): 470-490. <https://doi.org/10.1002/jee.20325>
- Mazzurco, Andrea, **Brent K. Jesiek**, and Allison Godwin. (2020). Development of Global Engineering Competency Scale: Exploratory and Confirmatory Factor Analysis. *Journal of Civil Engineering Education*, 146(2). [https://doi.org/10.1061/\(ASCE\)EI.2643-9115.0000006](https://doi.org/10.1061/(ASCE)EI.2643-9115.0000006)
- Zhu, Qin, and **Brent K. Jesiek**. (2020) Practicing Engineering Ethics in Global Context: A Comparative Study of Expert and Novice Approaches to Cross-Cultural Ethical Situations. *Science and Engineering Ethics*, 26. <https://doi.org/10.1007/s11948-019-00154-8>
- Buswell, Natascha T., **Brent K. Jesiek**, Cary D. Troy, Rebecca R. Essig, and Joshua Boyd. (2019). Engineering Instructors on Writing: Perceptions, Practices, and Needs. *IEEE Transactions on Professional Communication*, 62(1): 55-74. <https://doi.org/10.1109/TPC.2019.2893392>
- Jesiek, Brent K.**, Andrea Mazzurco, Natascha Buswell, and Julia Thompson. (2018). Boundary Spanning and Engineering: A Qualitative Systematic Review. *Journal of Engineering Education*, 107(3): 380-413. <https://doi.org/10.1002/jee.20219>
- Mazzurco, Andrea, Jon A. Leydens, and **Brent K. Jesiek**. (2018). Passive, Consultative, and Coconstructive Methods: A Framework to Facilitate Community Participation in Design for Development. *Journal of Mechanical Design*, 140(12). <https://doi.org/10.1115/1.4041171>
- Essig, Rebecca, Cary D. Troy, **Brent K. Jesiek**, and Natascha Buswell. (2018). Assessment and Characterization of Writing Exercises in Core Engineering Textbooks. *Journal of Professional Issues in Engineering Education and Practice*, 144(4). <https://doi.org/10.1061/%28ASCE%29EI.1943-5541.0000378>
- Huff, James, Jonathon A. Smith, **Brent K. Jesiek**, Carla B. Zoltowski, and William C. Oakes. (2018). Identity in Engineering Adulthood: An Interpretative Phenomenological Analysis of Early-Career Engineers in the United States as They Transition to the Workplace. *Journal of Emerging Adulthood*, 7(6). <https://doi.org/10.1177/2167696818780444>
- Payne, Lindsey, and **Brent K. Jesiek**. (2018). Enhancing Transdisciplinary Learning through Community-Based Design Projects: Results from a Mixed Methods Study. *International Journal for Service Learning in Engineering*, 13(1): 1-52. <https://doi.org/10.24908/ijlse.v13i1.11147>
- Jesiek, Brent K.**, and Leah H. Jamieson. (2017). The Expansive (Dis)Integration of Electrical Engineering Education. *IEEE ACCESS* 5: 4561-4573. <https://doi.org/10.1109/ACCESS.2017.2677200>
- Zhu, Qin, and **Brent K. Jesiek**. (2017). A Pragmatic Approach to Ethical Decision-Making in Engineering Practice: Characteristics, Evaluation Criteria, and Implications for Instruction and Assessment. *Science and Engineering Ethics*, 23(3): 663-679. <https://doi.org/10.1007/s11948-016-9826-6>
- Mazzurco, Andrea, and **Brent K. Jesiek**. (2017). Five Guiding Principles to Enhance Community Participation in Humanitarian Engineering Projects. *Journal of Humanitarian Engineering*, 5(2). <https://doi.org/10.36479/jhe.v5i2.80>
- Thompson, Julia, and **Brent K. Jesiek**. (2017). Transactional, Cooperative, and Communal: Relating the Structure of Engineering Engagement Programs with the Nature of Partnerships. *Michigan Journal of Community Service Learning*, 23(2). <https://doi.org/10.3998/mjcsloa.3239521.0023.206>

- Sangam, Deepika, and **Brent K. Jesiek**. (2015). Conceptual Gaps in Circuits Textbooks: A Comparative Study. *IEEE Transactions on Education*, 58(3): 194-202.
<https://doi.org/10.1109/TE.2014.2358575>
- Zhu, Qin, **Brent K. Jesiek**, and Yu Gong. (2015). Past/Forward Policy-Making: Transforming Chinese Engineering Education Since the Reform and Opening-up. *History of Education: Journal of the History of Education Society*, 44(5): 553-574.
<https://doi.org/10.1080/0046760X.2015.1040083>
- Zhu, Qin, and **Brent K. Jesiek**. (2014). In Pursuit of the Dao in Policymaking: Toward a Cultural Approach to Understanding Engineering Education Policy in China. *Technology in Society*, 38(August 2014): 169-176. <https://doi.org/10.1016/j.techsoc.2014.05.002>
- Jesiek, Brent K.**, Yating Haller, and Julia Thompson. (2014). Developing Globally Competent Engineering Researchers: Outcomes-Based Instructional and Assessment Strategies from the IREE 2010 China Research Abroad Program. *Advances in Engineering Education*, 4(1).
- Jesiek, Brent K.**, Qin Zhu, Sang Eun Woo, Julia Thompson, and Andrea Mazzurco. (2014). Global Engineering Competency in Context: Situations and Behaviors. *Online Journal of Global Engineering Education*, 8(1).
- Jesiek, Brent K.** (2013). The Origins and Early History of Computer Engineering in the United States. *IEEE Annals of the History of Computing*, 35(3): 6-18.
<https://doi.org/10.1109/MAHC.2013.2>
- Jesiek, Brent K.**, Yi Shen, and Yating Haller. (2012). Cross-Cultural Competence: A Comparative Assessment of Engineering Students. *International Journal of Engineering Education*, 28(1): 144-155.
- Beddoes, Kacey, **Brent K. Jesiek**, and Maura Borrego. (2011). Fostering International Engineering Education Research Collaborations: On the Need to Think Beyond the Workshop Format. *Australasian Journal of Engineering Education*, 17(2): 39-54.
<https://doi.org/10.1080/22054952.2011.11464056>
- Jesiek, Brent K.**, Maura Borrego, Kacey Beddoes, Miguel Hurtado, Preeti Rajendran, and Deepika Sangam. (2011). Mapping Global Trends in Engineering Education Research, 2005 - 2008. *International Journal of Engineering Education*, 27(1): 77-90.
- Beddoes, Kacey, **Brent K. Jesiek**, and Maura Borrego. (2010). Identifying Opportunities for Collaborations in International Engineering Education Research on Problem- and Project-Based Learning. *Interdisciplinary Journal of Problem-based Learning*, 4(2): 7-34.
<https://doi.org/10.7771/1541-5015.1142>
- Jesiek, Brent K.**, Maura Borrego, and Kacey Beddoes. (2010). Advancing Global Capacity for Engineering Education Research (AGCEER): Relating Research to Practice, Policy, and Industry. *Journal of Engineering Education*, 99(2): 107-119. <https://doi.org/10.1002/j.2168-9830.2010.tb01048.x>
- Jesiek, Brent K.**, Maura Borrego, and Kacey Beddoes. (2010). "Advancing Global Capacity for Engineering Education Research (AGCEER): Relating Research to Practice, Policy, and Industry." *European Journal of Engineering Education*, 35(2): 117-134.
<https://doi.org/10.1080/03043791003596928>
- Jesiek, Brent K.**, Lynita K. Newswander, and Maura Borrego. (2009). Engineering Education Research: Discipline, Community, or Field? *Journal of Engineering Education*, 98(1): 39-52.
<https://doi.org/10.1002/j.2168-9830.2009.tb01004.x>

Lucena, Juan, Gary L. Downey, **Brent K. Jesiek**, and Sharon Ruff. (2008). Competencies Beyond Countries: The Re-Organization of Engineering Education in the United States, Europe, and Latin America. *Journal of Engineering Education*, 97(4): 433-447.
<https://doi.org/10.1002/j.2168-9830.2008.tb00991.x>

Jesiek, Brent. (2006). The Sociotechnical Boundaries of Hardware and Software: A Humpy Dumpty History. *Bulletin of Science, Technology, and Society*, 26(6): 497-509.
<https://doi.org/10.1177/0270467606295002>

Downey, Gary L., Juan C. Lucena, Barbara Moskal, Thomas Bigley, Chris Hays, **Brent Jesiek**, Liam Kelly, Jane Lehr, Jonson Miller, Amy Nichols-Belo, Sharon Ruff, and Rosamond Parkhurst. (2006). The Globally Competent Engineer: Working Effectively with People Who Define Problems Differently. *Journal of Engineering Education*, 95(2): 107-122.
<https://doi.org/10.1002/j.2168-9830.2006.tb00883.x>

Jesiek, Brent. (2003). Democratizing Software: Open Source, the Hacker Ethic and Beyond. *First Monday*, 8(10). <https://doi.org/10.5210/fm.v8i10.1082>

BOOK CHAPTERS (since 2015)

Klassen, Mike, **Brent Jesiek**, Lina Zheng, and Jenni Case. (In press). Institutionalizing Engineering Education: Comparing Australia, China, and the United States. In Steen Hyldgaard Christensen et al. (Eds.), *Engineering, Social Sciences, and the Humanities: Have Their Conversations Come of Age?*, Philosophy of Engineering and Technology, Vol. 42 (pp. TBD). Dordrecht, Heidelberg, London, and New York: Springer.

Zhu, Qin, and **Brent K. Jesiek**. (2015). Confucianism, Marxism, and Pragmatism: The Intellectual Contexts of Engineering Education in China. In Steen Hyldgaard Christensen et al. (Eds.), *International Perspectives on Engineering Education*, Philosophy of Engineering and Technology, Vol. 20 (pp. 151-170). Dordrecht, Heidelberg, London, and New York: Springer.

PEER-REVIEWED CONFERENCE PAPERS (since 2015)

Dang, Nicholas, Kirsten Davis, and **Brent K. Jesiek**. (2022). Measuring Change in Students' Development of Global Competency in Two Global Engineering Courses. *Proceedings of the 2022 ASEE Annual Conference and Exposition*, Minneapolis, MN, June 26-29, 2022.

Jesiek, Brent K., Stephanie Claussen, Carla Zoltowski, Dayoung Kim, and Lazlo Stepback. (2022). Exploring Perceptions of Ethics and Social Responsibility Among Engineering Students and Professionals: Research Highlights and Implications for the Field. *Proceedings of the 2022 ASEE Annual Conference and Exposition*, Minneapolis, MN, June 26-29, 2022.

Brozina, Cory, Aditya Johri, **Brent K. Jesiek**, and Russ Korte. (2021). A Review of Digital Ethnographic Methods with Implications for Engineering Education Research. *Proceedings of the 2021 Frontiers in Education (FIE) Conference*, Lincoln, Nebraska, October 13-16, 2021. DOI: 10.1109/FIE49875.2021.9637057

Kim, Dayoung, **Brent K. Jesiek**, and Michael C. Loui. (2021). Moral Narratives of Practicing Engineers Across Industry Sectors for Engineering Ethics Education. *Proceedings of the 2021 Frontiers in Education (FIE) Conference*, Lincoln, Nebraska, October 13-16, 2021. DOI: 10.1109/FIE49875.2021.9637275

Cao, Yi, Xiaoye Ma, Jennifer M. Case, **Brent K. Jesiek**, David B. Knight, William C. Oakes, Marie C. Paretto, Xiofeng Teng, Zheping Xie, and Hiayan Zhao. (2021). Visions of Engineers for the Future: A Comparison of American and Chinese Policy Discourses on Engineering Education Innovation. *2021 ASEE Virtual Annual Conference Content Access*, July 26, 2021.

- Claussen, Stephanie, Shiloh James Howland, Swetha Nittala, **Brent K. Jesiek**, and Carla B. Zoltowski. (2021). Longitudinal Qualitative Case Study of One Engineering Student's Perceptions of Ethics and Social Responsibility: Corvin's Story. *2021 ASEE Virtual Annual Conference Content Access*, July 26, 2021.
- Claussen, Stephanie, **Brent K. Jesiek**, Carla B. Zoltowski, and Shiloh James Howland. (2021). Early Career Engineers' Views of Ethics and Social Responsibility: Study Overview. *2021 ASEE Virtual Annual Conference Content Access*, July 26, 2021.
- Kim, Dayoung, Shiloh James Howland, and **Brent K. Jesiek**. (2021). Encountering Engineering Ethics in the Workplace: Stories from the Trenches. *2021 ASEE Virtual Annual Conference Content Access*, July 26, 2021.
- Kim, Dayoung, **Brent K. Jesiek**, Michael C. Loui, and Chuck Huff. (2021). Work in Progress: Organizational Culture and Engineers' Moral Values Across Industry Sectors: Study Overview. *2021 ASEE Virtual Annual Conference Content Access*, July 26, 2021.
- Zheng, Lina, Dexin Hu, and **Brent K. Jesiek**. (2021). A Systematic Review of Multidisciplinary Engineering Education: Accredited Programs, Educational Approaches, and Capstone Design. *2021 ASEE Virtual Annual Conference Content Access*, July 26, 2021.
- Jesiek, Brent K.**, Aditya Johri, and Corey Brozina. (2020). Work-in-Progress: Novel Ethnographic Approaches for Investigating Engineering Practice. *Proceedings of the 2020 ASEE Annual Conference and Exposition*, June 22-26, 2020 (virtual/online).
- Zoltowski, Carla, **Brent K. Jesiek**, Shiloh Howland, Stephanie Claussen, Dayoung Kim, and Swetha Nittala. (2020) "Foundations of Social and Ethical Responsibility Among Undergraduate Engineering Students: Overview of Results." *Proceedings of the 2020 ASEE Annual Conference and Exposition*, June 22-26, 2020 (virtual/online).
- Jesiek, Brent K.**, Natascha T. Buswell, Andrea Mazzurco, and Tasha Zephirin. (2019). Toward a Typology of the Sociotechnical in Engineering Practice. *Proceedings of the 2019 Research in Engineering Education Symposium (REES)*, Cape Town, South Africa, July 10-12, 2019.
- Kim, Dayoung, and **Brent K. Jesiek**. (2019). Work-in-Progress: Emotion and Intuition in Engineering Students' Ethical Decision Making and Implications for Engineering Ethics Education. *Proceedings of the 2019 ASEE Annual Conference and Exposition*, Tampa, FL, June 15-19, 2019.
- Nittala, Swetha, and **Brent K. Jesiek**. (2018). Work Experiences of Engineering Managers: Challenges, Strategies, Competencies. *Proceedings of the 2018 Frontiers in Education (FIE) Conference*, San Jose, CA, October 3-6, 2018.
- Kim, Dayoung, Peter Odom, Carla B. Zoltowski, and **Brent K. Jesiek**. (2018). Investigating Moral Disengagement Among First-Year Engineering Students. *Proceedings of the 2018 Frontiers in Education (FIE) Conference*, San Jose, CA, October 3-6, 2018.
- Howland, Shiloh M. James, Gregg M. Warnick, Carla B. Zoltowski, **Brent K. Jesiek**, and Randall Davies. (2018). A Longitudinal Study of Social and Ethical Responsibility Among Undergraduate Engineering Students: Comparing Baseline and Midpoint Survey Results. *Proceedings of the 2018 ASEE Annual Conference and Exposition*, Salt Lake City, UT, June 23-27, 2018.
- Jesiek, Brent K.**, Natascha T. Buswell, and Qin Zhu. (2018). Global Engineering Competency: Assessment Tools and Training Strategies. *Proceedings of the 2018 ASEE Annual Conference and Exposition*, Salt Lake City, UT, June 23-27, 2018.

- Nittala, Swetha, Tasha Zephirin, Shiloh M. James Howland, Dayoung Kim, Andrew Katz, and **Brent K. Jesiek**. Investigating Influences on First-year Engineering Students' Views of Ethics and Social Responsibility. *Proceedings of the 2018 ASEE Annual Conference and Exposition*, Salt Lake City, UT, June 23-27, 2018.
- Nittala, Swetha, and **Brent K. Jesiek**. (2018). Managing Engineering Talent in Organizations: A Qualitative Systematic Literature Review on Engineering Talent Management. *Proceedings of the 2018 ASEE Annual Conference and Exposition*, Salt Lake City, UT, June 23-27, 2018.
- Zephirin, Tasha, and **Brent K. Jesiek**. (2018). WIP: Unpacking the Black Box: How does a Cultural Engineering Student Organization Support the Persistence of Students of Color? *Proceedings of the 2018 ASEE Annual Conference and Exposition*, Salt Lake City, UT, June 23-27, 2018.
- Jesiek, Brent K.**, Natascha M. Trellinger, and Swetha Nittala. (2017). Closing the Practice Gap: Studying Boundary Spanning in Engineering Practice to Inform Educational Practice. *Proceedings of the 2017 IEEE Frontiers in Education Conference*, Indianapolis, IN, Oct. 18-21, 2017.
- Jesiek, Brent K.**, Natascha M. Trellinger, Swetha Nittala, and Scott J. Campbell. (2017). Interns in the Wild: Using Structured Reflection and Interviews to Investigate Early Career Engineering Practice. *Proceedings of the 2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 25-27, 2017.
- Jesiek, Brent K.**, Carla B. Zoltowski, Debra S. Fuentes, Stephanie Claussen, and Gregg M. Warnick. (2017). Investigating Engineering Students' Understandings of Social and Ethical Responsibility: Coding Framework and Initial Findings. *Proceedings of the 2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 25-27, 2017.
- Hatfield, Lauren M., Catherine T. Amelink, Nicole Sanderlin, Heather E. Lyne, and **Brent K. Jesiek**. (2017). Student Outcomes Of Participating in an International Research Experience. *Proceedings of the 2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 25-27, 2017.
- Mazzurco, Andrea, and **Brent K. Jesiek**. (2017). Laying the Foundations of a Learning Platform for Humanitarian Engineering: Methodological Approach and Results. *Proceedings of the 2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 25-27, 2017.
- Trellinger, Natascha M., and **Brent K. Jesiek**. (2017). How Six Assistant Professors Landed Their Jobs at Baccalaureate Colleges and Master's Institutions: A Focus on Pathways and Teaching (Un)preparedness. *Proceedings of the 2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 25-27, 2017.
- Zhu, Qin, and **Brent K. Jesiek**. (2017). Engineering Ethics in Global Context: Four Fundamental Approaches. *Proceedings of the 2017 ASEE Annual Conference and Exposition*, Columbus, OH, June 25-27, 2017.
- Trellinger, Natascha M., and **Brent K. Jesiek**. (2016). Teaching Pathways in the Academy: A Narrative Study of Engineering Faculty at Institutions with Varying Teaching and Research Activity. *Proceedings of the 2016 Frontiers in Education (FIE) Conference*, Erie, PA, October 12-15, 2016.
- Choudhary, Neha, and **Brent K. Jesiek**. (2016). State of Mixed Methods Research in Engineering Education: In-depth Examination of JEE articles, 2010–2015. *Proceedings of the 2016 Frontiers in Education (FIE) Conference*, Erie, PA, October 12-15, 2016.
- Choudhary, Neha, and **Brent K. Jesiek**. (2016). Community Partners' Perspectives on the Outcomes from International Service-Learning Programs: Project Scope and Method. *Proceedings of the 2016 Frontiers in Education (FIE) Conference*, Erie, PA, October 12-15, 2016.

- Jesiek, Brent K.**, Natascha M. Trellinger, and Andrea Mazzurco. (2016). Becoming Boundary Spanning Engineers: Research Methods and Preliminary Findings. *Proceedings of the 2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 26-29, 2016.
- Zoltowski, Carla B., **Brent K. Jesiek**, Stephanie A. Claussen, and David H. Torres. (2016). Foundations of Social and Ethical Responsibility Among Undergraduate Engineering Students: Project Overview. *Proceedings of the 2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 26-29, 2016.
- Fuentes, Debra S., Gregg M. Warnick, **Brent K. Jesiek**, and Randall Davies. (2016). A Longitudinal Study of Social and Ethical Responsibility Among Undergraduate Engineering Students: Preliminary Results. *Proceedings of the 2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 26-29, 2016.
- Trellinger, Natascha M., **Brent K. Jesiek**, Cary Troy, Josh Boyd, and Rebecca R. Essig. (2016). Engineering Faculty on Writing: What They Think and What They Want. *Proceedings of the 2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 26-29, 2016.
- Troy, Cary, **Brent K. Jesiek**, Josh Boyd, Natascha M. Trellinger, and Rebecca R. Essig. (2016). Writing to Learn Engineering: Identifying Effective Techniques for the Integration of Written Communication into Engineering Classes and Curricula. *Proceedings of the 2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 26-29, 2016.
- Huff, James, **Brent K. Jesiek**, Carla B. Zoltowski, Kavitha D. Ramane, and William C. Oakes. (2016). Social and Technical Dimensions of Engineering Identity. *Proceedings of the 2016 ASEE Annual Conference and Exposition*, New Orleans, LA, June 26-29, 2016.
- Jesiek, Brent K.**, Andrea Mazzurco, Natascha Trellinger, and Kavitha Ramane. (2015). Becoming Boundary Spanners in Engineering: Identifying Roles, Activities, and Competencies. *Proceedings of the 2015 Frontiers in Education (FIE) Conference*, El Paso, TX, October 21-24, 2015.
- Héctor E. Rodríguez-Simmonds, Matilde Sánchez-Peña, S. Zahra Atiq, Genisson Silva Coutinho, and **Brent K. Jesiek**. (2015). A Letter to the Future Engineer: Exploring Cross-Cultural Engineering Identities Through Practitioners' Letters of Advice. *Proceedings of the 2015 Frontiers in Education (FIE) Conference*, El Paso, TX, October 21-24, 2015.
- Choudhary, Neha, and **Brent K. Jesiek**. (2015). Engineering Ph.D. Students' Career Preferences: Levels Changes, and the Role of Advisors. *Proceedings of the 2015 Frontiers in Education (FIE) Conference*, El Paso, TX, October 21-24, 2015.
- Jesiek, Brent K.**, Sang Eun Woo, Qin Zhu, Kavitha D. Ramane, and Neha Choudhary. (2015). Defining and Assessing Global Engineering Competency: Methodological Reflections. *Proceedings of the 2015 ASEE Annual Conference and Exposition*, Seattle, WA, June 14-17, 2015.
- Huff, James L., **Brent K. Jesiek**, William Oakes, Carla Zoltowski, Kavitha Ramane, and William G. Graziano. (2015). Tensions of Integration in Professional Formation: Investigating Development of Engineering Students' Social and Technical Perceptions. *Proceedings of the 2015 ASEE Annual Conference and Exposition*, Seattle, WA, June 14-17, 2015.
- Kong, Nan, Tiago Forin, **Brent K. Jesiek**, and Natascha Trellinger. (2015). Purdue-Tsinghua Undergraduate Research Dual Exchange: A New Programmatic Implementation for Enhancing Global Learning. *Proceedings of the 2015 ASEE Annual Conference and Exposition*, Seattle, WA, June 14-17, 2015.

Trellinger, Natascha, Rebecca Essig, Cary Troy, **Brent K. Jesiek**, and Joshua Boyd. (2015). Something to Write Home(work) About: An Analysis of Writing Exercises in Fluid Mechanics Textbooks. *Proceedings of the 2015 ASEE Annual Conference and Exposition*, Seattle, WA, June 14-17, 2015.

BOOK REVIEWS, COMMENTARIES, and EDITORIALS (since 2015)

Brent K. Jesiek. (2021). Introduction to Special Theme Issue: Pandemic Pivots, Part 1. *Journal of International Engineering Education*, 3(1), Article 1.

Brunhaver, Samantha, **Brent K. Jesiek**, Russell F. Korte, and Alexandra Coso Strong. (2021). The Early Career Years of Engineering: Crossing the Threshold Between Education and Practice. *Engineering Studies*, 13(2): 79-85. DOI: 10.1080/19378629.2021.1961570

Jesiek, Brent K. (2018). Internationalizing Engineering Education: Looking Forward, Looking Back. *Journal of International Engineering Education*, 1(1), Article 1.

Jesiek, Brent K. and Jennifer J. DeBoer. (2015). Editors' Note. *International Journal of Chinese Education*, 4(2): 129-134.

KEYNOTE PRESENTATIONS (since 2015)

Jesiek, Brent K. (2020). "Engineering is Ethics: Preparing Engineering Graduates for Wicked Global Challenges." (Invited Keynote Presentation.) The 15th International Symposium on Science and Education Development Strategy, Hangzhou, China, December 11, 2020.

Jesiek, Brent K. (2020). "Bridging the Competency Gap: Using Workplace Studies to Rethink Education." (Invited Keynote Presentation.) 14th International Conference on Science, Technology and Education Policy, Hangzhou, China, December 6, 2019.

INVITED PRESENTATIONS (since 2015)

Jesiek, Brent K. (2022). "Discipline-Based Global Learning: Why? What? How?" (Online/Remote). Global Learning and Internationalization Institute, UNC Charlotte, May 17, 2022.

Jesiek, Brent K. (2020). "Bridging the Competency Gap: Using Workplace Studies to Rethink Education, Empirically" (Online/Remote). Research Seminar Series, Department of Engineering Education, The Ohio State University, September 17, 2020.

Jesiek, Brent K. (2020). "Teaching Engineering Ethics in an International Context." (Invited Webinar Presentation.) Center for Engineering Ethics and Society, National Academy of Engineering, May 7, 2020.

Jesiek, Brent K. (2019). "Bridging the Competency Gap: Using Workplace Studies to Rethink Education." Institute of Education, Beijing Institute of Technology, Beijing, China, December 10, 2019.

Jesiek, Brent K. (2019). "Bridging the Competency Gap: Using Workplace Studies to Rethink Education." Institute of Education, Tsinghua University, Beijing, China, December 9, 2019.

Jesiek, Brent K. (2018). "Internationalizing Engineering Education: Looking Forward, Looking Back." 20th Annual Colloquium on International Engineering Education, Newport, RI, November 1, 2018.

Jesiek, Brent K. (2018). "Narratives of Practice: Making Sense of Engineering Work." Department of Engineering Education, Virginia Tech, Blacksburg, VA, September 14, 2018.

- Jesiek, Brent K.** (2017). “Frontiers in Engineering Ethics Education: Perceptions, Interventions, and Instruments.” Colorado School of Mines, Golden, CO, October 3, 2017.
- Jesiek, Brent K.** (2017). “From Research on Engineering Practice to Best Practices for PBL.” National Cheng Kung University, Tainan City, Taiwan, May 15, 2017.
- Jesiek, Brent K.** (2017). “From Research on Engineering Practice to Best Practices for PBL.” Feng Chia University, Taichung, Taiwan, May 9, 2017.
- Jesiek, Brent K.** (2016). “Assessing Global Learning: From Pitfalls to Possibilities.” 19th Annual Colloquium on International Engineering Education, Newport, RI, November 3-4, 2016.
- Jesiek, Brent K.** (2016). “Learning to Work Across Cultures at Home and Abroad: Formats and Best Practices” and “Assessing Global Learning: Alignment and Efficiency.” NAFSA STEM Colloquium, Denver, CO, June 1, 2016.
- Jesiek, Brent K.** (2016). “Project-Based Learning: Models and Best Practice” and “Trends and Innovations in Outcomes-Based Assessment.” Feng Chia University, Taichung, Taiwan, May 23 and 25, 2016.
- Jesiek, Brent K.** (2015). “Toward 100% Global Competency: Challenges and Opportunities.” 18th Annual Colloquium on International Engineering Education, New York, NY, November 5-6, 2015.

CONFERENCE and WORKSHOP PRESENTATIONS (since 2015)

- Jesiek, Brent K.** (2019). “Assessing Global Learning: From Pitfalls to Possibilities.” Center for Intercultural Learning, Mentoring, Assessment and Research (CILMAR) Workshop, Purdue University, March 8, 2019.
- Jesiek, Brent K.** (2017). “Trouble in CAP Triangle: Strategies for Assessing Engineering Learning” (Workshop). Colorado School of Mines, Golden, CO, October 2, 2017.
- Jesiek, Brent K.** (2016). “Toward 100% Global Competency: Vision and Implementation.” Panel Discussion: Global Engineering – What does that mean? 2016 ASEE Annual Conference and Exposition, New Orleans, LA, June 28, 2016.

PhD THESIS SUPERVISION (Completed)

- Dayoung Kim, 2022, Engineering Education, “Professional Socialization of Engineers: Moral Formation and Organizational Culture” (co-advised with Michael Loui).
- Chanel Beebe, 2021, Engineering Education, “But What Does it Mean to the People Who Matter?: Community Partner Meaning Making in Engineering Engagement Programs” (co-advised with Monica Cardella).
- Swetha Nittala, 2020, Engineering Education, “Lived Experiences of Recently Transitioned Engineering Managers: An Interpretive Qualitative Study.”
- Jessica Leeker Rush, 2020, Engineering Education, “But, is it Working? Mentor Involvement in Informal Elementary STEM Programs. A Collective Case Study” (co-advised with Monica Cardella).
- Natascha Trellinger Buswell, 2017, Engineering Education, “Teaching Pathways in the Academy: A Narrative and Thematic Study of Engineering Faculty at Institutions of Varying Research and Teaching Activity.”
- Qin Zhu, 2017, Engineering Education, “Working Effectively with Confucian Engineers: Sociopolitical Contexts, Cultures of Engineering Practice, and Collaborative Strategies.”

Andrea Mazzurco, 2016, Engineering Education, “Methods to Facilitate Community Participation in Humanitarian Engineering Projects: Laying the Foundation for a Learning Platform.”

Askia Hill, 2015, Electrical and Computer Engineering, “An Evaluation of Engineering Epistemology and Its Factors in Electrical and Computer Engineering Students” (co-advised with Cordelia Brown).

Lindsey Payne, 2015, Ecological Science and Engineering, “Transitioning to Sustainability through transdisciplinary Knowledge Production Models” (co-advised with Dan Shephardson).

Julia Thompson, 2015, Engineering Education, “Engineering Community Engagement Partnerships: Investigating Motivation, Nature, and Structure.”

James Huff, 2014, Engineering Education, “Psychological Journeys of Engineering Identity from School to the Workplace: How Students Become Engineers Among Other Forms of Self” (co-advised by William Oakes).

Deepika Sangam, 2012, Electrical and Computer Engineering, “Conceptual Learning of Fundamentals in Electric Circuits: Student Misconceptions, Textbooks, and Multi-Perspective Conceptual Change.”

LEADERSHIP and SERVICE ACTIVITIES (active and external only)

Editor-in-Chief, 2021 - Present

Journal of International Engineering Education (JIEE)

Associate Editor, 2019 - Present

IEEE Transactions on Technology and Society

Web Editor (Officer), 2007 - Present

International Network for Engineering Studies (INES)

PROFESSIONAL MEMBERSHIPS and AFFILIATIONS

Member, American Society for Engineering Education (ASEE), 2008 – Present

Member, Association for Professional and Applied Ethics (APPE), 2018 – Present

Senior Member, IEEE, 2006 – Present

Member, International Network for Engineering Studies (INES), 2009 – Present