CYNTHIA J. FINELLI CURRICULUM VITA

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ACADEMIC APPOINTMENTS

Positions at University of Michigan

- Faculty appointments
 - o Associate Professor, Electrical Engineering and Computer Engineering. Sep 2015 present.
 - o Associate Professor, Education (courtesy appointment). Sep 2016 present
 - Research Associate Professor, Education. Mar 2015 Aug 2016.
 - Research Associate Professor, Engineering Education (20% appointment). Sep 2010 Aug 2015.
 - Associate Research Scientist, Engineering Education (20% appointment). Sep 2004 Aug 2010.
- Administrative appointments
 - o Director, Engineering Education Research Program, College of Engineering. Sep 2016 present.
 - Faculty Director, Engineering Education Research, Center for Research on Learning and Teaching in Engineering (CRLT-Engin, formerly CRLT North). Sep 2015 Aug 2016.
 - Founding Director, CRLT-Engin. Nov 2003 Aug 2015.
 - Coordinator of Engineering Education, CRLT. Apr 2003 Oct 2003.

Positions at Kettering University (formerly GMI Engineering & Management Institute)

- Faculty appointments
 - o Richard L. Terrell Professor for Excellence in Teaching. Dec 2002 Jul 2003.
 - Associate Professor, Electrical Engineering. Jul 1996 Jul 2003.
 - o Assistant Professor, Electrical Engineering. Jan 1993 Jun 1996.
 - o Instructor, Electrical Engineering. Sep 1992 Dec 1992.
- Administrative appointments
 - o Founding Director, Center for Excellence in Teaching and Learning. Apr 2000 Jul 2003.

EDUCATION

- Ph.D., Electrical Engineering: Systems. University of Michigan, Ann Arbor, MI. May 1993. Doctoral thesis: A signal modeling method for analysis of cardiac arrhythmia in intraventricular electrograms.
- M.S.E., Electrical Engineering: Systems. University of Michigan, Ann Arbor, MI. Dec 1989. (Optional) Master's thesis: *Effect of sympathetic tone on ventricular electrogram morphology*.
- B.S.E., Electrical Engineering. University of Michigan, Ann Arbor, MI. Aug 1988.

AWARDS AND HONORS (LISTED IN REVERSE CHRONOLOGICAL ORDER)

- 1. Frontiers of Engineering Education Member, National Academy of Engineering, 2016.
- 2. Ben Dasher Award, for the Special Session *Agents for STEM Change Articulating the goals of our community* at the 2014 ASEE/IEEE Frontiers in Education Conference. Oct 2015.
- 3. Best Paper in the Educational Research and Methods Division Award, American Society of Engineering Education, for the paper *Making value for faculty: Learning communities in engineering faculty development* at the 2015 ASEE Annual Conference & Exposition. Jun 2015.
- 4. Ronald J. Schmitz Award for Meritorious Service to the IEEE/ASEE Frontiers in Education Conference. Oct 2014.
- 5. Campus Representative Award for Most New Professional Members in North Central Section, American Society of Engineering Education. Jun 2014.
- 6. Campus Representative Award for Highest Percentage of Faculty Membership in North Central Section, American Society of Engineering Education. Jun 2014.
- 7. Academy of Fellows Membership, American Society of Engineering Education. Apr 2013.
- 8. Maryellen Weimer Scholarly Work on Teaching and Learning Award, for the paper *The Comprehensive Assessment of Team Member Effectiveness: Development of a behaviorally anchored rating scale for self and peer evaluation.* Jun 2013.
- 9. National Effective Teaching Institute Fellow. 2012 2013.
- 10. Faculty Recognition Award for Outstanding Mentorship, University of Michigan Undergraduate Research Opportunity Program. Apr 2012.
- 11. Distinguished Service Award, American Society of Engineering Education Educational Research and Methods Division. Oct 2010.
- 12. Best Paper in the Professional Interest Council V Award, American Society of Engineering Education, for the paper *Preparing for participation in SPEED: An ASEE initiative for a nationally recognized development program for engineering educator* at the 2010 ASEE Annual Conference & Exposition. Jun 2010.
- 13. Premier Award for Engineering Education Courseware, for the software *Comprehensive Assessment of Team Member Effectiveness (CATME) Instrument* (www.catme.org). Jun 2009.
- 14. Best Paper in the Educational Research and Methods Division Award, American Society of Engineering Education, for the paper *Students' perceptions of both the certainty and the deterrent effect of potential consequences of cheating* at the 2003 ASEE Annual Conference & Exposition. Jun 2003.
- 15. Faculty Appreciation Award, Sigma Chi Fraternity at Kettering University. 1996, 1998, 1999, 2001.
- 16. Honorary Member Status, Robot Society at Kettering University. Dec 2000.
- 17. Outstanding Chapter Advisor of the Year for service to Theta Phi Alpha sorority, Kettering University. Jun 1998 and Jun 1999.
- 18. Outstanding Teacher of the Year, Kettering University Alumni Association (formerly GMI Engineering & Management Institute). Jun 1997.
- 19. Faculty of the Month, GMI Greek Student Assembly. May 1995.
- 20. Member, Tau Beta Pi (engineering honor society). Inducted 1986.
- 21. Member, Eta Kappa Nu (electrical engineering honor society). Inducted 1985.

PRESENTATIONS AND PUBLICATIONS

<u>Invited keynote addresses</u> (listed in reverse chronological order)

- 1. **Finelli, C. J.** (2015). *Promoting institutional change and improving teaching practices*. Keynote address at Annual Scholarship of Learning and Teaching Conference for Faculty of Science and Technology, Uppsala University, Stockholm, Sweden. 03/18/15.
- 2. **Finelli, C. J.** (2014). *Educating ethical engineers* (2014). Keynote address at European Regional CDIO (Conceive, Design, Implement, and Operate) Meeting, Gothenburg, Sweden. 01/16/14.
- 3. **Finelli, C. J.** (2014). *Evidence-based teaching practices: Bridging the research-to-practice gap.* Keynote address at Annual Conference on Learning and Teaching, Chalmers University, Gothenburg, Sweden. 01/15/14.

Refereed journal articles (student co-authors underlined, postdoctoral fellow co-authors double underlined)

- 1. **Finelli, C. J.**, Nguyen, K. A., DeMonbrun, R. M., Borrego, M., Prince, M. J., Henderson, C., Shekhar, P., Waters, C. K., & Husman, J. Reducing student resistance to active learning: Strategies for instructors. *Journal of College Science Teaching*. Manuscript submitted 03/24/17.
- 2. <u>Shekhar, P.</u>, Prince, M. J., **Finelli, C. J.**, <u>DeMonbrun, R. M.</u>, & Waters, C. K. (2017). *Integrating quantitative and qualitative research methods to examine student resistance to active learning*. Manuscript submitted to European Journal of Engineering Education. 09/20/16.
- 3. <u>DeMonbrun, R. M., Finelli, C. J.</u>, Prince, M. J., Borrego, M., <u>Shekhar, P.</u>, Henderson, C., & Waters, C. K. (2017). Creating an instrument to measure student response to instructional practices. *Journal of Engineering Education*, *106*(2), 273-298.
- 4. Nguyen, K. A., Husman, J., Borrego, M., Shekhar, P., Prince, M. J., DeMonbrun, R. M., Finelli, C. J., Henderson, C., & Waters, C. K. (2017). Students' expectations, types of instruction, and instructor strategies predicting student response to active learning. *International Journal of Engineering Education*, 33(1A), 2-18.
- 5. **Finelli, C. J.**, Borrego, M., & <u>Rasoulifar, G.</u> Special Report: Development of a taxonomy of keywords for engineering education research. Special joint publication appearing simultaneously in five journals as:
 - (2015, Oct). Journal of Engineering Education, 104(4), 365-387. doi 10.1002/jee.20101.
 - (2015, Nov). *IEEE Transactions on Education*, 58(4), 219-241. doi 10.1002/jee.20101
 - (2016, Jan/Feb). International Journal of Engineering Education, 32(1A), 2-18.
 - (2016, Feb). Australasian Journal of Engineering Education, 21(1), 1-16. doi 10.1080/22054952.2015.1133215
 - (2016). European Journal of Engineering Education, 41(3), 231-215. doi 10.1080/03043797.2016.1153045
- 6. <u>Shekhar, P., DeMonbrun, R. M.,</u> Borrego, M., **Finelli, C. J.**, Prince, M. J., Henderson, C., & Waters, C. K. (2015, Mar/Apr). Development of an observation protocol to study undergraduate engineering student resistance to active learning. *International Journal of Engineering Education*, *31*(2), 597-609. EID: 2-s2.0-84924985490
- 7. **Finelli, C. J.**, Daly, S. R., & Richardson, K. M. (2014, Apr). Bridging the research-to-practice gap: Designing an institutional change plan using local evidence. *Journal of Engineering Education Special Issue on the Complexities of Transforming Engineering Higher Education*, 103(2), 331-361. doi: 10.1002/jee.20042

- 8. Carpenter, D. C., Harding, T. S., <u>Sutkus, J. A.</u>, & **Finelli, C. J.** (2014, Oct). Assessing the ethical development of Civil Engineering undergraduates in support of the ASCE Body of Knowledge. *Journal of Professional Issues in Engineering Education and Practice*, *140*(4), 1-10. doi: 10.1061/(ASCE)EI.1943-5541.0000177
- 9. <u>Burt, B. A.</u>, Carpenter, D. D., <u>Holsapple, M. A.</u>, **Finelli, C. J.**, <u>Bielby, R. M.</u>, <u>Sutkus, J. A.</u>, & Harding, T. S. (2013, May/Jun). Out-of-classroom experiences: Bridging the disconnect between the classroom, the engineering workforce, and ethical development. *International Journal of Engineering Education*, 29(3). 714-725. EID: 2-s2.0-84878328465
- 10. Ohland, M. W., Loughry, M. L., Woehr, D. J., Finelli, C. J., Bullard, L. G., Felder, R. M., Layton, R. A., Pomeranz, H. R., & Schmucker, D. G. (2012, Dec). The Comprehensive Assessment of Team Member Effectiveness: Development of a behaviorally anchored rating scale for self and peer evaluation. *Academy of Management Learning & Education*, 11(4), 609-630. doi: 10.5465/amle.2010.0177
 Winner of the 2013 Maryellen Weimer Scholarly Work on Teaching and Learning Award
- 11. **Finelli, C. J.**, <u>Holsapple, M. A.</u>, <u>Ra, E.</u>, <u>Bielby, R. M.</u>, <u>Burt, B. A.</u>, Carpenter, D. D., Harding, T. S., & Sutkus, J. A. (2012, Jul). An assessment of engineering students' curricular and co-curricular experiences and their ethical development. *Journal of Engineering Education*, *101*(3), 469-494. doi: 10.1002/j.2168-9830.2012.tb00058.x
- 12. Harding, T. S., Carpenter, D. D., & **Finelli, C. J.** (2012, Apr). An exploratory investigation of the ethical behavior of engineering undergraduates. *Journal of Engineering Education*, 101(2), 346-374. doi: 10.1002/j.2168-9830.2012.tb00053.x
- 13. <u>Holsapple, M. A.</u>, Carpenter, D. D., <u>Sutkus, J. A.</u>, **Finelli, C. J.**, & Harding, T. S. (2012, Apr). Framing faculty and student discrepancies in engineering ethics education delivery. *Journal of Engineering Education*, *101*(2), 169-186. doi: 10.1002/j.2168-9830.2012.tb00047.x
- 14. Wright, M. C., **Finelli, C. J.**, & Meizlish, D. S. (2011). Facilitating the Scholarship of Teaching and Learning at a research university. *Change: The Magazine of Higher Learning, 43*(2), 50-56. doi: 10.1080/00091383.2011.550255
- 15. Carpenter, D. D., Harding, T. S., & **Finelli, C. J.** (2010, Sep/Oct). Using research to identify academic dishonesty deterrents among engineering undergraduates. *International Journal of Engineering Education*, 26(5), 1156-1165. EID: 2-s2.0-78649365298
- 16. **Finelli, C. J.**, Wright, M. C., & Pinder-Grover, T. (2010). Consulting the Delphi: A new idea for collecting student feedback through the Two-Survey Method. *Journal of Faculty Development*, 24(2). 25-33.
- 17. Mesa, V. M., <u>Jaquette, O.</u>, & **Finelli, C. J.** (2009). Measuring the impact of an individual course on students' success. *Journal of Engineering Education*, *98*(4), 349-359. doi: 10.1002/j.2168-9830.2009.tb01032.x
- 18. <u>Mayhew, M. J.</u>, Hubbard, S. M., **Finelli, C. J.**, Harding, T. S., & Carpenter, D. D. (2009, Summer). Using structural equation modeling to validate the Theory of Planned behavior as a model for predicting student cheating. *Review of Higher Education*, 32(4), 441-468. doi: 10.1353/rhe.0.0080
- 19. **Finelli, C. J.**, Ott, M., Gottfried, A. C., Hershock, C., O'Neal, C. M., & Kaplan, M. L. (2008, Oct). Utilizing instructional consultations to enhance the teaching performance of engineering faculty. *Journal of Engineering Education*, 97(4), 397-411. doi: 10.1002/j.2168-9830.2008.tb00989.x
- 20. Harding, T. S., Mayhew, M. J., **Finelli, C. J.**, & Carpenter, D. D. (2007, Sep). The Theory of Planned Behavior as a model of academic dishonesty in humanities and engineering undergraduates. *Ethics and Behavior*, 17(3), 255-279. doi: 10.1080/10508420701519239
- 21. Davis, C.-S. G., & **Finelli, C. J.** (2007, Fall). Diversity and retention in engineering. In M. L. Kaplan & A. T. Miller (Eds.), *The Scholarship of Multicultural Teaching and Learning. New Directions for Teaching and Learning*, 111 (pp. 63-71). San Francisco: Jossey-Bass. doi: 10.1002/tl.287

- 22. <u>Passow, H. J., Mayhew, M. J.</u>, **Finelli, C. J.**, Harding, T. S., & Carpenter, D. D. (2006, Sep). Factors influencing engineering students' decisions to cheat by type of assessment. *Research in Higher Education*, 47(7), 643-684. doi: 10.1007/s11162-006-9010-y
- 23. Carpenter, D. D., Harding, T. S., **Finelli, C. J.**, Montgomery, S. M., & <u>Passow, H. J.</u> (2006, Jul). Engineering students' perceptions of and attitudes towards cheating. *Journal of Engineering Education*, 95(3), 181-194. doi: 10.1002/j.2168-9830.2006.tb00891.x
- 24. Harding, T. S., Carpenter, D. D., **Finelli, C. J.**, & <u>Passow, H. J.</u> (2004, Jun). Does academic dishonesty relate to unethical behavior in professional practice? An exploratory study. *Science and Engineering Ethics*, *10*, 311-324. doi: 10.1007/s11948-004-0027-3
- 25. **Finelli, C. J.**, Klinger, A., & Budny, D. D. (2001, Oct). Strategies for improving the classroom environment. *Journal of Engineering Education*, 90(4), 491-498. doi: 10.1002/j.2168-9830.2001.tb00630.x
- 26. **Finelli, C. J.**, & Wicks, M. A. (2000, May). An instrument for assessing the effectiveness of the circuits curriculum in an electrical engineering program. *IEEE Transactions on Education*, 43(2), 137-142. doi: 10.1109/13.848065
- 27. **Finelli, C. J.** (1996, Aug). The time-sequenced adaptive filter for analysis of cardiac arrhythmias in intraventricular electrograms. *IEEE Transactions on Biomedical Engineering*, 43(8), 811-819. doi: 10.1109/10.508543
- 28. **Finelli, C. J.**, DiCarlo, L. A., Jenkins, J. M., Winston, S. A., & Li, P. (1991, Nov 15). Effects of increased heart rate and sympathetic tone on intraventricular electrogram morphology. *American Journal of Cardiology*, 68, 1321-1328. doi: 10.1016/0002-9149(91)90239-H
- 29. Throne, R. D., Jenkins, J. M., Winston, S. A., **Finelli, C. J.**, & DiCarlo, L. A. (1989, Oct). Discrimination of retrograde from anterograde atrial activation using intracardiac electrogram waveform analysis. *Pacing and Clinical Electrophysiology*, *12*(10), 1622-1630. doi: 10.1111/j.1540-8159.1989.tb01841.x

Book chapters

- 1. Harding, T. S., **Finelli, C. J.,** & Carpenter, D. D. (2016). Academic dishonesty among engineering undergraduates in the United States. In. D. Velliaris (Ed.), *Handbook of Research on Academic Misconduct in Higher Education*. pp. 160-181. Hershey, PA: IGI Global. doi: 10.4018/978-1-5225-1610-1
- 2. **Finelli, C. J.**, Pinder-Grover, T., & Wright, M. C. (2011). Consultations on teaching. Using student feedback for instructional improvement. In C. E. Cook & M. L. Kaplan (Eds.), *Advancing the culture of teaching at a research university: How a teaching center can make a difference*. pp 65-79. Sterling, VA: Stylus Publishing.

Editorials, reports, and invited essays

- 1. Oakley, B., & **Finelli, C. J.** (2014. May). Guest Editorial: A practical approach to understanding—and applying!—the scholarship of application. *IEEE Transactions on Education*, *57*(2), 69-74. doi: 10.1109/TE.2014.2313036
- 2. **Finelli, C. J.** (2008, Nov). A way to enhance teaching. Invited essay for Journal of Engineering Selects series. *ASEE Prism Magazine*, 61.
- 3. Lord, S. M., & **Finelli, C. J.** (2010, Jul/Aug). Guest Editorial. *International Journal of Engineering Education*, 26(4), 746-747. EID: 2-s2.0-77956450027

<u>Refereed conference or symposium proceedings</u> (<u>student co-authors underlined</u>, <u>postdoctoral fellow co-authors</u> double underlined)

- 1. Nguyen, K. A., DeMonbrun, R. M., Borrego, M., Husman, J., Prince, M. J., Finelli, C. J., Shekhar, P., Henderson, C., & Waters, C. K. (2017, July). The tensions measuring instructional practices. *Proceedings of the 2017 International Research in Engineering Education Symposium*, Bogota, Columbia.
- 2. <u>Johnson, A. W.</u>, & **Finelli, C. J.** (2017, June). Responsive teaching in undergraduate engineering courses. *Proceedings of the 2017 ASEE Annual Conference & Exposition*, Columbus, OH.
- 3. Nguyen, K. A., DeMonbrun, R. M., Borrego, M., Prince, M. J. Husman, J., **Finelli, C. J.**, Shekhar, P., Henderson, C., & Waters, C. K. (2017, June). The variation of nontraditional teaching methods across 17 undergraduate engineering classrooms. *Proceedings of the 2017 ASEE Annual Conference & Exposition*, Columbus, OH.
- 4. <u>Kerst, J.</u>, <u>Pfershy, H.</u>, <u>DeMonbrun, R. M.</u>, & **Finelli, C. J.** (2017, June). Long-term impact of faculty development program on student evaluations of teaching. *Proceedings of the 2017 ASEE Annual Conference & Exposition*, Columbus, OH.
- 5. **Finelli, C. J.**, & <u>Johnson, A. W.</u> (2017, April). Work in Progress: Flipping the circuits classroom: The impact of pre-class reading and in-class active learning on student and instructor. *Proceedings of the 2017 IEEE EDUCON Conference*, Athens, Greece.
- 6. Nguyen, K. A., Husman, J. E., Borrego, M. J., Shekhar, P., Prince, M. J., DeMonbrun, R. M., Finelli, C. J., & Waters, C. K. (2017, April). Students' expectations, types of instruction, and instructor strategies: Predicting student response to active learning. *Proceedings of the 2017 Annual Meeting of the American Educational Research Association*, Austin, TX.
- 7. Waters, C. K., Nguyen, K. A., Shekhar, P., Borrego, M., Prince, M. J., Finelli, C. J., DeMonbrun, R. M., & Henderson, C. (2017, March). Implementation and faculty reflection of an instrument to measure student response to instructional practices. *Proceedings of the 2017 American Society of Engineering Education Zone II Conference*, San Juan, Puerto Rico.
- 8. Borrego, M. J., Besterfield-Sacre, M. E., **Finelli, C. J.**, Lattuca, L. R., & <u>Shekhar, P.</u> (2016, Jun). Recommended practices for managing large, multi-site engineering education research data collection projects. *Proceedings of 2016 ASEE Annual Conference & Exposition*, New Orleans, LA.
- 9. Nguyen, K. A., Borrego, M. J., **Finelli, C. J.**, Shekhar, P., DeMonbrun, R. M., Henderson, C., Prince, M. J., & Waters, C. K. (2016, Jun). Measuring student response to instructional practices (StRIP) in traditional and active classrooms. *Proceedings of 2016 ASEE Annual Conference & Exposition*, New Orleans, LA.
- 10. <u>Steiner, A., Hirshfield, L.</u>, **Finelli, C. J.**, & Chachra, D. (2016, Jun). Investigating task choice in first-year engineering team projects. *Proceedings of 2016 ASEE Annual Conference & Exposition*, New Orleans, LA.
- 11. **Finelli, C. J.**, Froyd, J. E., & Shuman, L. J. (2016, Jun). Innovation through propagation: Learning in and out of the classroom. *Proceedings of 2016 ASEE Annual Conference & Exposition*, New Orleans, LA.
- 12. **Finelli, C. J.** (2016, Apr). The Teaching Circle: Successfully promoting faculty adoption of evidence-based teaching practices. *Proceedings of the American Association for the Advancement of Science (AAAS)'s Conference "Envisioning the Future of Undergraduate STEM Education: Research and Practice," Washington, DC.*
- 13. Pinder-Grover, T. A., **Finelli, C. J.**, Millunchick, J. M., & Moldwin, M. (2015). *A faculty learning community to prompt critical reflection and improve practice*. 2015 POD Network Conference, San Francisco, CA.
- 14. Harding, T. H., Sutkus, J. A., Carpenter, D. D., & **Finelli, C. J.** (2015, Oct). SEED-PA. A practical instrument for assessing individual ethics initiatives. *Proceedings of 45th IEEE/ASEE Frontiers in Education Conference*, El Paso, TX. doi: 10.1109/FIE.2015.7344290.

- 15. <u>Shekhar, P.</u>, Borrego, M., **Finelli, C. J.**, Prince, M. J., <u>DeMonbrun, R. M.</u>, Waters, C. K., & Henderson, C. (2015, Jul). A mixed-method study to understand student resistance to active learning. *Proceedings of 2015 International Research in Engineering Education Symposium*, Dublin, Ireland.
- 16. <u>Hirshfield, L.</u>, Chachra, D., & **Finelli, C. J.** (2015, Jul). Structuring team projects to improve engineering self-efficacy. *Proceedings of 2015 International Research in Engineering Education Symposium*, Dublin, Ireland.
- 17. Carpenter, D. D., Sutkus, J. A., **Finelli, C. J.**, Harding, T. S., & <u>Harris, R.</u> (2015, Jun). Assessing the ethical development of students in an undergraduate Civil Engineering course using a standardized instrument. *Proceedings of 2015 ASEE Annual Conference & Exposition*, Seattle, WA.
- 18. <u>DeMonbrun, R. M., Finelli, C. J., & Shekhar, P.</u> (2015, Jun). Methods for establishing validity and reliability of observation protocols. *Proceedings of 2015 ASEE Annual Conference & Exposition*, Seattle, WA.
- 19. <u>Hirshfield, L. J.</u>, Chachra, D., **Finelli, C. J., &** <u>Goodman, J. M.</u> (2015, Jun). Relating project tasks and team roles in design courses to the development of engineering self-efficacy. *Proceedings of 2015 ASEE Annual Conference & Exposition*, Seattle, WA.
- 20. Pulford, S., Ruzycki, N. J, **Finelli, C. J.**, Hahn, L. D., & Thorson, D. L. (2015, Jun). Making value for faculty: Learning communities in engineering faculty development. *Proceedings of 2015 ASEE Annual Conference & Exposition*, Seattle, WA. **Winner of the Best Paper Award ASEE Educational Research and Methods Division**
- 21. <u>Vernon, J.</u>, **Finelli, C. J.**, Perkins, N. C., & Orr, B. (2015, Jun). Piloting i-Newton for the experiential learning of dynamics. *Proceedings of 2015 ASEE Annual Conference & Exposition*, Seattle, WA.
- 22. **Finelli, C. J.**, <u>DeMonbrun, R. M.</u>, Borrego, M., <u>Shekhar, P.</u>, Henderson, C., Prince, M. J., & Waters, C. K. (2014, Oct). A classroom observation instrument for assessing student reaction to active learning. *Proceedings of 44th IEEE/ASEE Frontiers in Education Conference*, Madrid, Spain. doi: 10.1109/FIE.2014.7044084
- 23. <u>Anderson, O. S.</u>, & **Finelli, C. J.** (2014, Jun). A faculty learning community to improve teaching practices in large engineering courses: Lasting impacts. *Proceedings of 2014 ASEE Annual Conference & Exposition*, Indianapolis, IN.
- 24. Borrego, M., Prince, M. J., Nellis, C., Shekhar, P., Waters, C. K., & **Finelli, C. J.** (2014, Jun). Student perceptions of instructional change in engineering courses: A pilot study. *Proceedings of 2014 ASEE Annual Conference & Exposition*, Indianapolis, IN.
- 25. **Finelli, C. J.**, & Borrego, M. (2014, Jun). An inclusive process for developing a taxonomy of keywords for engineering education research. *Proceedings of 2014 ASEE Annual Conference & Exposition*, Indianapolis, IN.
- 26. **Finelli, C. J.**, & Millunchick, J. M. (2013, Jun). The Teaching Circle for Large Engineering Courses: Clearing the activation barrier. *Proceedings of 2013 ASEE Annual Conference & Exposition*, Atlanta, GA.
- 27. **Finelli, C. J.**, Richardson, K. M., & Daly, S. R. (2013, Jun). Factors that influence faculty motivation to adopt effective teaching practices in engineering. *Proceedings of 2013 ASEE Annual Conference & Exposition*, Atlanta, GA.
- 28. <u>Daly, S. R.</u>, **Finelli, C. J.**, <u>Al-Khafaji, A. B.</u>, & <u>Neubauer, M. J.</u> (2012, Jun). Student perspectives of faculty classroom practices. *Proceedings of 2012 ASEE Annual Conference & Exposition*, San Antonio, TX.
- 29. <u>Holsapple, M. A.</u>, Sutkus, J. A., **Finelli, C. J.**, Carpenter, D. D., <u>Burt, B. A.</u>, Ra, E., Harding, T. S., & <u>Bielby, R. M.</u> (2011, Nov). *Exploring the relationship between satisfaction, pedagogical approaches, and student outcomes*. 26th Annual Conference of the Association for the Study of Higher Education Conference, Charlotte, NC.

- 30. Carpenter, D. D., **Finelli, C. J.**, <u>Holsapple, M. A.</u>, <u>Bielby, R. M.</u>, <u>Burt, B. A.</u>, Sutkus, J. A., & Harding, T. S. (2011, Oct). Assessing the ethical development of engineering undergraduates in the United States. *Proceedings of 2011 International Research in Engineering Education Symposium*, Madrid, Spain.
- 31. **Finelli, C. J.**, & <u>Daly, S. R.</u> (2011, Oct). Teaching practices of engineering faculty: Perceptions and actual behavior. *Proceedings of 2011 International Research in Engineering Education Symposium*, Madrid, Spain.
- 32. <u>Bielby, R. M.</u>, Harding, T. S., Carpenter, D. D., **Finelli, C. J.**, Sutkus, J. A., <u>Burt, B. A.</u>, <u>Ra, E.</u>, & <u>Holsapple</u>, <u>M. A.</u> (2011, Jun). Impact of different curricular approaches to ethics instruction on ethical reasoning ability. *Proceedings of 2011 ASEE Annual Conference & Exposition*, Vancouver, Canada.
- 33. <u>Burt, B. A.</u>, Carpenter, D. D., **Finelli, C. J.**, Harding, T. S., Sutkus, J. A., <u>Holsapple, M. A.</u>, <u>Bielby, R. M.</u>, & <u>Ra, E.</u> (2011, Jun). Outcomes of engaging engineering undergraduates in co-curricular experiences. *Proceedings of 2011 ASEE Annual Conference & Exposition*, Vancouver, Canada.
- 34. <u>Holsapple, M. A.</u>, Sutkus, J., **Finelli, C. J.**, Carpenter, D. D., <u>Burt, B. A.</u>, <u>Ra, E.</u>, Harding, T. S., & <u>Bielby, R. M.</u> (2011, Jun). We can't get no satisfaction!: The relationship between students' ethical reasoning and their satisfaction with engineering ethics education. *Proceedings of 2011 ASEE Annual Conference & Exposition*, Vancouver, Canada.
- 35. Ohland, M. W., Bullard, L. G., Felder, R. M., **Finelli, C. J.**, Layton, R. A., Loughry, M. L., Pomeranz, H. R., Schmucker, D. G., & Woehr, D. J. (2010, Aug). Comprehensive Assessment of Team Member Effectiveness: A behaviorally anchored rating scale. *Proceedings of 2010 Academy of Management Annual Meeting*, Montreal, Canada. doi: 10.5465/amle.2010.0177
- 36. **Finelli, C. J.**, Meadows, L. A., <u>Lorch, D. P.</u>, Davis, C.-S., & Meadows, G. A. (2010, Jun). Are we really "Crossing the Boundary"? Assessing a novel integrated math/science course. *Proceedings of ASEE 2010 Annual Conference & Exposition*, Louisville, KY.
- 37. <u>Holsapple, M. A.</u> Carpenter, D. D., Sutkus, J. A., **Finelli, C. J.**, <u>Walczak, K.</u>, & Harding, T. S. (2010, Jun). Understanding the differences between faculty and administrator goals and students' experiences with ethics education. *Proceedings of ASEE 2010 Annual Conference & Exposition*, Louisville, KY.
- 38. Visco, D. P., Jr., Schaefer, D., Utschig, T. T., Mohsen, J. P., Fortenberry, N. L., Prince, M. J., & **Finelli, C. J.** (2010, Jun). Preparing for participation in SPEED: An ASEE initiative for a nationally recognized development program for engineering educators. *Proceedings of ASEE 2010 Annual Conference & Exposition*, Louisville, KY. **Winner of the Best Paper Award ASEE Professional Interest Council V**
- 39. Walczak, K., Finelli, C. J., Holsapple, M. A., Sutkus, J. A., Harding, T. S., & Carpenter, D. D. (2010, Jun). Institutional obstacles to integrating ethics into the curriculum and strategies for overcoming them. *Proceedings of ASEE 2010 Annual Conference & Exposition*, Louisville, KY.
- 40. Schaefer, D., Visco, Jr., D. P., Utschig, T. T., Mohsen, J. P., Fortenberry, N. L., Prince, M. J., & **Finelli, C. J.** (2010, Apr). SPEED: An ASEE initiative for a nationally recognized development program for engineering educators. *Proceedings of 2010 ASEE Southeastern Section Conference*, Charleston, SC.
- 41. <u>Holsapple, M. A.</u>, **Finelli, C. J.**, Carpenter, D. D., Harding, T. S., & <u>Sutkus, J. A</u>. (2009, Oct). Work-in-progress: A mixed methods approach to developing an instrument measuring engineering students' positive ethical behavioral outcomes. *Proceedings of 39th IEEE/ASEE Frontiers in Education Conference*, San Antonio, TX. doi: 10.1109/FIE.2009.5350613
- 42. Harding, T. S., <u>Sutkus, J. A.</u>, **Finelli, C. J.**, & Carpenter, D. D. (2009, Jul). Engineering culture and the ethical development of undergraduate students. *Proceedings of 2009 International Research in Engineering Education Symposium*, Palm Cove, Queensland, Australia.
- 43. **Finelli, C. J.**, & <u>Brown, M. K.</u> (2009, Jun). Using an interactive theater sketch to improve students' teamwork skills. *Proceedings of 2009 ASEE Annual Conference & Exposition*, Austin, TX.

- 44. <u>Sutkus, J. A.</u>, Carpenter, D. D., **Finelli, C. J.**, & Harding, T. S. (2009, Jun). An examination of student experiences related to engineering ethics: Initial findings. *Proceedings of 2009 ASEE Annual Conference & Exposition*, Austin, TX.
- 45. <u>Sutkus, J. A.</u>, Carpenter, D. D., **Finelli, C. J.**, & Harding, T. S. (2008, Oct). Work-in-progress: Building the Survey of Engineering Ethical Development (SEED) instrument. *Proceedings of 38th IEEE/ASEE Frontiers in Education Conference*, Saratoga, NY. doi: 10.1109/FIE.2008.4720486
- 46. **Finelli, C. J.**, <u>Sutkus, J. A.</u>, Carpenter, D. D., & Harding, T. S. (2008, Jul). A longitudinal study of the ethical development of engineering and non-engineering students at a national research university. *Proceedings of 2008 International Research in Engineering Education Symposium*, Davos, Switzerland.
- 47. Carpenter, D. D., **Finelli, C. J.**, & Harding, T. S. (2008, Jul). Investigating the linkages between unethical professional behaviors and engineering undergraduate cheating. *Proceedings of 2008 International Research in Engineering Education Symposium*, Davos, Switzerland.
- 48. Mayhew, M. J., Hubbard, S. M., Harding, T. S., **Finelli, C. J.**, & Carpenter, D. D. (2008, Mar). *Using structural equation modeling to validate the Theory of Planned Behavior as a model for predicting student cheating*. Paper at the 2008 Annual Meeting of the American Educational Research Association, New York, NY.
- 49. **Finelli, C. J.**, Harding, T. S., Carpenter, D. D., & <u>Mayhew, M. J.</u> (2007, Jun). Academic integrity among engineering undergraduates: Seven years of research. *Proceedings of 2007 ASEE Annual Conference & Exposition*, Honolulu, HI.
- 50. Mayhew, M. J., Harding, T. S., **Finelli, C. J.**, & Carpenter, D. D. (2007, Apr). *Examining the underlying motivations of undergraduates to behave unethically*. Paper at the 2007 Annual Meeting of the American Educational Research Association, Chicago, IL.
- 51. Meadows, L. A., Nidiffer, J., Ball, S. R., Davis, C.-S. G., **Finelli, C. J.**, & Schultz, W. W. (2006, Oct). Workin-progress: An initial assessment of the effect of the first year experience on under-represented student retention in engineering. *Proceedings of 36th IEEE/ASEE Frontiers in Education Conference*, San Diego, CA. doi: 10.1109/FIE.2006.322672
- 52. **Finelli, C. J.**, <u>Gottfried, A. C.</u>, Kaplan, M. L., Mesa, V. M., O'Neal, C. M., & Piontek. M. E. (2006, Jun). Evaluating methods to improve teaching in engineering. *Proceedings of 2006 ASEE Annual Conference & Exposition*, Chicago, IL.
- 53. Harding, T. S., **Finelli, C. J.**, & Carpenter, D. D. (2006, Jun). Cheating in college and its influence on ethical behavior in professional engineering practice. *Proceedings of 2006 ASEE Annual Conference & Exposition*, Chicago, IL.
- 54. Harding, T. S., **Finelli, C. J.**, Carpenter, D. D., & <u>Mayhew, M. J.</u> (2006, Jun). Examining the underlying motivations of engineering undergraduates to behave unethically. *Proceedings of 2006 ASEE Annual Conference & Exposition*, Chicago, IL.
- 55. Bullard, L. G., Carter, R. L., Felder, R. M., **Finelli, C. J.**, Layton, R. A., Loughry, M. L., Ohland, M. W., & Schmucker, D. G. (2006, Jun). The Comprehensive Assessment of Team Member Effectiveness: A new peer evaluation instrument. *Proceedings of 2006 ASEE Annual Conference & Exposition*, Chicago, IL.
- 56. Carpenter, D. D., Harding, T. S., & **Finelli, C. J.** (2006, May). The implications of academic dishonesty in undergraduate engineering on professional ethical behavior. *Proceedings of 2006 World Environmental and Water Resources Congress*, Omaha, NE.
- 57. Carpenter, D. D., Harding, T. S., & **Finelli, C. J.** (2005, Oct). Work-in-progress: An investigation into the effect of an institutional honor code policy on academic behavior. *Proceedings of 35th IEEE/ASEE Frontiers in Education Conference*, Indianapolis, IN. doi: 10.1109/FIE.2005.1611895

- 58. **Finelli, C. J.**, <u>Szwalek, J. L.</u>, Harding, T. S., & Carpenter, D. D. (2005, Oct). A case study of research in engineering education: Designing, testing, and administering the PACES-2 Survey on academic integrity. *Proceedings of 35th IEEE/ASEE Frontiers in Education Conference*, Indianapolis, IN. doi: 10.1109/FIE.2005.1612013
- 59. Ohland, M. W., Loughry, M. L., Carter, R. L., Bullard, L. G., Felder, R. M., **Finelli, C. J.**, Layton, R. A., & Schmucker, D. G. (2005, Sep). Developing a peer evaluation instrument that is simple, reliable, and valid. Proceedings of 4th ASEE/Australasian Association for Engineering Education Global Colloquium on Engineering Education, Sydney, Australia.
- 60. Ohland, M. W., Loughry, M. L., Carter, R. L., Bullard, L. G., Felder, R. M., **Finelli, C. J.**, Layton, R. A., & Schmucker, D. G. (2005, Jun). Developing a peer evaluation instrument that is simple, reliable, and valid. *Proceedings of 2005 ASEE Annual Conference & Exposition*, Portland, OR.
- 61. <u>Passow, H. J., Mayhew, M. J.</u>, **Finelli, C. J.**, Carpenter, D. D., & Harding, T. S. (2005, Apr). *Factors influencing engineering students' decisions to cheat by type of assignment*. Paper at the 2005 Annual Meeting of the American Educational Research Association, Montréal, Quèbec, Canada.
- 62. <u>Passow, H. J., Mayhew, M. J.</u>, **Finelli, C. J.**, Carpenter, D. D., & Harding, T. S. (2004, Nov). *Factors influencing engineering students' decisions to cheat vary by type of assignment*. Paper at the 29th Annual Conference of the Association for the Study of Higher Education, Kansas City, MO.
- 63. Etter, B. K., Harding, T. S., **Finelli, C. J.**, & Carpenter, D. D. (2004, Oct). The role of moral philosophy in promoting academic integrity among engineering students. *Proceedings of 34th IEEE/ASEE Frontiers in Education Conference*, Savannah, GA. doi: 10.1109/FIE.2004.1408691
- 64. Harding, T. S., Carpenter, D. D., **Finelli, C. J.**, & <u>Passow, H. J.</u> (2004, Jun). The influence of academic dishonesty on ethical decision making in the workplace: A study of engineering students. *Proceedings of 2004 ASEE Annual Conference & Exposition*, Salt Lake City, UT.
- 65. Harding, T. S., Carpenter, D. D., **Finelli, C. J.**, & <u>Passow, H. J.</u> (2003, Nov). An examination of the relationship between academic dishonesty and professional behavior. *Proceedings of 33rd IEEE/ASEE Frontiers in Education Conference*, Boulder, CO. doi: 10.1109/FIE.2003.1265933
- 66. **Finelli, C. J.**, Harding, T. S., Carpenter, D. D., & <u>Passow, H. J.</u> (2003, Jun). Students' perceptions of both the certainty and the deterrent effect of potential consequences of cheating. *Proceedings of 2003 ASEE Annual Conference & Exposition*, Nashville, TN. **Winner of the Best Paper Award ASEE Educational Research and Methods Division**
- 67. **Finelli, C. J.**, & Yokomoto, C. F. (2002, Jun). Do students who know more solve problems more successfully? *Proceedings of 2002 ASEE Annual Conference & Exposition*, Montréal, Quèbec, Canada
- 68. Harding, T. S., & **Finelli, C. J.** (2002, Jun). Suggestions for establishing centers for engineering education. *Proceedings of 2002 ASEE Annual Conference & Exposition*, Montréal, Quèbec, Canada.
- 69. Carpenter, D. D., Harding, T. S., Montgomery, S. M., & Steneck, N. H. (2002, Jun). P.A.C.E.S.—A study on academic integrity among engineering undergraduates (preliminary conclusions). *Proceedings of 2002 ASEE Annual Conference & Exposition*, Montréal, Quèbec, Canada.
- 70. **Finelli, C. J.** (2001, Oct). Assessing improvement in students' team skills and using a learning style inventory to increase it. *Proceedings of 31st IEEE/ASEE Frontiers in Education Conference*, Reno, NV. doi: 10.1109/FIE.2001.964023
- 71. Ohland, M. W., & **Finelli, C. J.** (2001, Jun). Peer evaluation in a mandatory cooperative education environment. *Proceedings of 2001 ASEE Annual Conference & Exposition*, Albuquerque, NM.
- 72. Klinger, A., **Finelli, C. J.**, & Budny, D. D. (2000, Oct). Improving the classroom environment. *Proceedings* of 30th IEEE/ASEE Frontiers in Education Conference, Kansas City, MO. doi: 10.1109/FIE.2000.897528

- 73. Wilkinson, K. R., **Finelli, C. J.**, Hynes, E., & Alzahabi, B. (2000, Oct). University-wide curriculum reform: Two processes to aid in decision making. *Proceedings of 30th IEEE/ASEE Frontiers in Education Conference*, Kansas City, MO. doi: 10.1109/FIE.2000.897653
- 74. **Finelli, C. J.** (1999, Nov). A team-oriented, project-based freshman problem-solving course: Benefits of early exposure. *Proceedings of 29th IEEE/ASEE Frontiers in Education Conference*, San Juan, Puerto Rico. doi: 10.1109/FIE.1999.839088
- 75. Melton, D. E., **Finelli, C. J.**, & Rust. L. M. (1999, Nov). A digital signal processing laboratory with style. *Proceedings of 29th IEEE/ASEE Frontiers in Education Conference*, San Juan, Puerto Rico. doi: 10.1109/FIE.1999.839074
- 76. **Finelli, C. J.**, Doty, S. L., Svinarich, K. A., & Winkler, B. S. (1997, Oct). A digitized acquisition system for electroretinograms and its use in studying the effects of organic buffers on the isolated rat retina. *Proceedings of 19th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Chicago, IL, 2212-2214. doi: 10.1109/IEMBS.1997.758797
- 77. Svinarich, K. A., **Finelli, C. J.**, & Doty. S. L. (1997, Jun). Issues involved in cross-discipline collaboration and off-campus research. *Proceedings of 1997 ASEE Annual Conference & Exposition*, Milwaukee, WI.
- 78. **Finelli, C. J.**, Sullivan, L. L., & Loving. P. Y. (1994, Jun). Engineering and science for the twenty-first century woman: A pre-college program. *Proceedings of 1994 Annual Women in Engineering Conference*, Washington, DC, 157-162.
- 79. **Finelli, C. J.**, Jenkins, J. M., & DiCarlo, L. A. (1993, Sep). Detection and identification of cardiac arrhythmias using an adaptive, linear-predictive filter. *Proceedings of IEEE 1993 Computers in Cardiology*, London, England, 177-180. doi: 10.1109/CIC.1993.378475
- 80. **Finelli, C. J.**, Wakefield, G. H. Jenkins, J. M., & DiCarlo, L. A. (1992, Mar). The time-sequenced adaptive filter for linear prediction of the intraventricular electrogram. *Proceedings of IEEE 1992 International Conference on Acoustics, Speech, and Signal Processing*, San Francisco, CA, 577-580. doi: 10.1109/ICASSP.1992.226382
- 81. **Finelli, C. J.**, & Jenkins, J. M. (1991, Nov). A cyclostationary least mean squares algorithm for discrimination of ventricular tachycardia from sinus rhythm. *Proceedings of 13th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Orlando, FL, 740-741. doi: 10.1109/IEMBS.1991.684170
- 82. **Finelli, C. J.**, Li, P., & Jenkins, J. M. (1991, Sep). The time-sequenced adaptive algorithm: Application to morphological adaptation and arrhythmia onset detection. *IEEE 1991 Proceedings of Computers in Cardiology*, Venice, Italy, 205-208. doi: 10.1109/CIC.1991.169081
- 83. **Finelli, C. J.**, Li, P., Jenkins, J. M., Throne, R. D., & DiCarlo, L. A. (1990, Sep). Intraventricular electrogram morphology: Effect of increased heart rate with and without accompanying changes in sympathetic tone. *Proceedings of IEEE 1990 Computers in Cardiology*, Chicago, IL, 115-119. doi: 10.1109/CIC.1990.144177
- 84. Throne, R. D., Jenkins, J. M., Winston, S. A., **Mays** (**Finelli**), **C. J.**, & DiCarlo, L. A. (1989, Sep). A comparison of correlation waveform analysis with a bin area method for recognition of retrograde activation in atrial electrograms. *Proceedings of IEEE 1989 Computers in Cardiology*, Jerusalem, Israel, 113-117. doi: 10.1109/CIC.1989.130496

Government, university, or industrial reports (non-refereed)

1. **Finelli, C. J.**, <u>Bergom, I. M.</u>, & Mesa, V. M. (2011). *Student teams in the engineering classroom and beyond: Setting up students for* success. Occasional Paper No. 29. Ann Arbor, MI: Center for Research on Learning and Teaching, University of Michigan. Available online: crlt.umich.edu/sites/default/files/resource_files/CRLT_no29.pdf

- 2. <u>Brown, M. K.</u>, Hershock, C., **Finelli, C. J.**, & O'Neal, C. M. (2009). *Teaching for retention in science, engineering, and math disciplines: A guide for* faculty. Occasional Paper No. 25. Ann Arbor, MI: Center for Research on Learning and Teaching, University of Michigan. Available online: crlt.umich.edu/sites/default/files/resource_files/CRLT_no25.pdf
- 3. Davis, C.-S. G., **Finelli, C. J.**, Gregerman, S., Holloway, J. P., & Meadows, L. A. (2007, May). Undergraduate initiatives to improve diversity and retention in engineering. *Proceedings of educating a STEM workforce: New strategies for the University of Michigan and the State of Michigan*, Ann Arbor, MI.

Refereed conference summaries or abstracts

- 1. <u>Johnson, A. W.</u>, & **Finelli, C. J.** (2017, Aug). Supporting different instructor pedagogies and student activities in a flexible classroom. Presentated at the International Forum on Active Learning Classrooms, Minneapolis, MN.
- 2. Nguyen, K. A., Shekhar, P., Husman, J., Borrego, M., Prince, M. J., Finelli, C. J., Waters, C. K., <u>DeMonbrun, R. M.</u>, & Henderson, C. (2016, Mar). *Students' expectations in undergraduate engineering active learning courses*. Presented at Mid-Years Engineering Experience Conference, College Station, TX.
- 3. **Finelli, C. J.**, Kaplan, M. L., & O'Neal, C. M. (2006, Oct). *How different types of instructional consultations affect faculty teaching practices*. Presented at 2006 Annual Professional and Organizational Development Conference, Portland, OR.
- 4. Harding, T. S., Carpenter, D. D., **Finelli, C. J.**, & <u>Mayhew, M. J.</u> (2005, Jun). *Cheating in college and the workplace: An examination of engineering undergraduates' ethical behavior*. Presented at 2005 ASEE Annual Conference & Exposition, Portland, OR.
- 5. Harding, T. S., Carpenter, D. D., **Finelli, C. J.**, & <u>Passow, H. J.</u> (2003, Oct). *The relationship between academic dishonesty and ethical behavior in engineering practice*. Presented at the 2003 Ethics and Social Responsibility in Engineering and Technology Conference, New Orleans, LA.
- 6. Rust, L. M., Palmer, K. I., & **Finelli, C. J.** (1999, Nov). *Energized enigma*. Presented at 29th IEEE/ASEE Frontiers in Education Conference. San Juan. Puerto Rico. doi: 10.1109/FIE.1999.840479
- 7. **Finelli, C. J.**, & Wicks, M. A. (1999, Jun). *An assessment tool for the circuits sequence of an electrical engineering curriculum*. Presented at 1999 ASEE Annual Conference & Exposition, Charlotte, NC.
- 8. Rust, L. M., Palmer, K. I., & **Finelli, C. J.** (1998, Jun). *Electrical escapades*. Presented at 1998 ASEE Annual Conference & Exposition: Women in Engineering Workshop, Seattle, WA.
- 9. Svinarich, K. A., Doty, S. L., **Finelli, C. J.**, Arnold, J. J., & Winkler, B. S. (1997, Oct). *An evaluation of the role of aspartate aminotransaminase in rat photoreceptors*. Presented at Annual Society for Neuroscience Conference, New Orleans, LA.
- 10. **Finelli, C. J.**, & Thompson. M. G. (1996, Apr). Integrating biomedical signal processing into the undergraduate curriculum. *Proceedings of 1996 North Central Section ASEE Annual Conference*, Big Rapids, MI.
- 11. **Finelli, C. J.**, & Wicks. M. A. (1996, Apr). Assessment of student achievement and retention of electrical circuit concepts in a cooperative education program. *Proceedings of 1996 North Central Section ASEE Annual Conference*, Big Rapids, MI.
- 12. **Finelli, C. J.**, DiCarlo, L. A., Jenkins, J. M., & Li, P. (1991, Sep). *Increased heart rate and sympathetic tone: Impact on correlation waveform, area of difference, and electrogram amplitude analyses.* Poster at IEEE 1991 Computers in Cardiology Conference, Venice, Italy.
- 13. **Finelli, C. J.**, Throne, R. D., Antoniadis, N., Jenkins, J. M., Winston, S. A., & DiCarlo, L. A. (1990, Apr). *Impact of increased heart rate alone and heart rate plus contractility upon intraventricular ECG morphology*.

- Paper at 15th Annual ISCE Conference on Computer Applications in Electrocardiology, Virginia Beach, VA.
- 14. Meliones, J. N., **Mays** (**Finelli**), **C. J.**, Dick, M., Jenkins, J. M., <u>Blevins, M.</u>, & Armstrong, B. (1989, May). *Computer analysis of the dynamic relationship between RR and QT interval in infants*. Paper at the 1998 Annual Conference of the American Pediatric Society and the Society for Pediatric Research.
- 15. Throne, R. D., Jenkins, J. M., Winston, S. A., Mays (Finelli), C. J., & DiCarlo, L. A. (1989, Apr). Correlation waveform analysis of intraatrial electrograms: An accurate method for discriminating anterograde from retrograde atrial activation. Paper at the 1989 Annual North American Society for Pacing and Electrophysiology Conference.
- 16. DiCarlo, L. A., Jenkins, J. M., Throne, R. D., **Mays** (**Finelli**), **C. J.**, & Lin, D. (1989, Apr). *Classification of arrhythmias using atrial and ventricular endocardial electrograms*. Paper at the Engineering Foundation Conference on Computerized Interpretation of the Electrocardiogram XIV.

<u>Invited lectures</u>, <u>seminars</u>, <u>panels</u>, <u>and interviews</u> (invited keynote addresses listed previously)

- 1. Ohland, M., **Finelli, C. J.**, Riley, D., McKenna, A., Abrams, L., Ragusa, G., Imbrie, P.K. (2017). *Engineering education research: Purpose, impact, and future*. ASEE Dean's Council panel moderated by Jerome P. Lavelle at the 2017 ASEE Annual Conference & Exposition, Columbus, OH.
- 2. **Finelli, C. J.** (2017). *Understanding and overcoming student resistance and other barriers to faculty's use of active learning*. Engineering Education Research Speaker Series. University of Pittsburgh, Pittsburgh, PA. 04/06/17.
- 3. **Finelli, C. J.** (2017). Student resistance and other obstacles to adoption of active learning: Understanding and overcoming them. Engineering and Science Education Department Seminar. Clemson, University, Clemson, SC. 03/31/17.
- 4. **Finelli, C. J.** (2016). *Integrating theory and local data to improve teaching*. REBUILD Foundational Courses in STEM: Lessons Learned and Future Directions Seminar Series, University of Michigan, Ann Arbor, MI. 11/01/16.
- 5. Bauer, C., **Finelli, C. J.**, Guzdial, M., Kussmaul, C., Pullin, M., Searls, M., Whitmeyer, S., & Ziegenfuss, D. (2016). *Building a faculty development toolbox*. American Association for the Advancement of Science (AAAS)'s Conference "Envisioning the Future of Undergraduate STEM Education: Research and Practice," Washington, DC. 04/27/16.
- 6. **Finelli, C. J.** (2015). *Promoting faculty adoption of effective teaching practices*. Chemical and Biological Engineering Department Graduate Seminar Series, Iowa State University, Ames, IA. 09/24/15.
- 7. **Finelli, C. J.** (2015). *Perspectives and priorities in STEM higher education research*. Centre for Discipline Based Education Research Plenary Discussion, Uppsala University, Uppsala, Sweden. 03/17/15.
- 8. **Finelli, C. J.** (2015). *Promoting faculty adoption of effective teaching practices*. School of Engineering Education Seminar, Purdue University, West Lafayette, IN. 03/05/15.
- 9. Austin, A. E., Singer, S. R., Barkanic, S. A., Bryk, A. S., Fairweather, J. S., **Finelli, C. J.**, Mathieu, R. D., & Penuel, W. R. (2014). *Integrating theory and local data to inform action: The Teaching Circle*. Invited participant for presidential panel (Linking theory, research, and action to improve STEM undergraduate education) at the 2014 Annual Meeting of the American Educational Research Association, Philadelphia, PA. 04/06/14.
- 10. **Finelli, C. J.** (2014). Factors influencing faculty adoption of effective teaching practices. Engineering Education Department Seminar, Virginia Polytechnic Institute and State University, Blacksburg, VA. 03/28/14.

- 11. **Finelli, C. J.** (2013). *The line between innovation, technology, and moral standards* [radio interview]. *Stateside with Cynthia Canty*. Ann Arbor, MI: Michigan Radio. 06/12/13. michiganradio.org/post/line-between-innovation-technology-and-moral-standards
- 12. **Finelli, C. J.** (2009). *Educating ethical engineers*. University Lecture Series, Carnegie Mellon University, Pittsburgh, PA. 04/01/09.
- 13. **Finelli, C. J.** (2007). *Academic integrity among engineering undergraduates*. Faculty Innovation Seminar, University of Texas, Austin, TX. 10/29/07.
- 14. **Finelli, C. J.** (2004). *Learning styles and their implications for teaching*. Invited workshop at Professional Development Day, Lawrence Technological University, Southfield, MI. 01/08/04.
- 15. **Finelli, C. J.** (2000). *Promoting active learning using cooperative learning techniques*. Invited workshop at the 2000 North East Regional ASEE Annual Conference, Lowell, MA. 04/28/00.
- 16. Jenkins, J. M., **Finelli, C. J.**, DiCarlo, L. A., & Greenhut, S. E. (1990). *Implantable defibrillation and external pace technology*. Invited presentation at the Midyear Meeting & Exposition, Association for the Advancement of Medical Instrumentation/Michigan Society for Clinical Engineering, Dearborn, MI. 11/04/90.

Workshops at national conferences (postdoctoral fellow co-authors double underlined)

- 1. **Finelli, C. J.,** Kotys-Schwartz, D., & Zappe, S. (2016, Jun). *Introduction to engineering education research*. Workshop for the 2016 ASEE Annual Conference & Exposition, New Orleans, LA. 06/26/16.
- 2. Bates, R. A., Benson, L., Cheville, A., **Finelli, C. J.,** Karlin, J., & Lord, S. M. (2015). *Agents for STEM change Articulating the goals of our community*. Special session at the 45th IEEE/ASEE Frontiers in Education Conference, El Paso, TX. 10/23/15. doi: 10.1109/FIE.2015.7344195.
- 3. **Finelli, C. J.**, & <u>Rasoulifar, G.</u> (2014). *Using and disseminating a taxonomy for engineering education research*. Mini-workshop at the 44th IEEE/ASEE Frontiers in Education Conference, Madrid, Spain. 10/22/14. doi: 10.1109/FIE.2014.7043989
- 4. Bates, R. A., Cheville, R. A., Karlin, J. N., Benson, L. C., **Finelli, C. J.**, & Lord, S. M. (2014). *Agents for STEM change Articulating the goals of our community*. Special session at the 44th IEEE/ASEE Frontiers in Education Conference, Madrid, Spain. 10/24/14. doi: 10.1109/FIE.2014.7044308. **Winner of the Helen Plants Award IEEE/ASEE Frontiers in Education Steering Committee**
- 5. Richards, L. G., Rowland, J. R., Lord, S. M., Froyd, J. E., **Finelli, C. J.**, Meier, R., Atman, C. J., Jones, E., & Anderson-Rowland, M. R. (2014). *Pursuing the frontiers: The history and future of the Frontiers in Education Conference*. Panel presentation at the 44th IEEE/ASEE Frontiers in Education Conference, Madrid, Spain. 10/24/14. doi: 10.1109/FIE.2014.7044187
- 6. Smith, K. A., & **Finelli, C. J.** (2014). *Preparing facilitators for virtual faculty development programs*. Special session at the 2014 ASEE Annual Conference & Exposition, Indianapolis, IN. 06/16/14.
- 7. **Finelli, C. J.** (2013). *Refining a taxonomy for engineering education research*. Workshop at the 43rd IEEE/ASEE Frontiers in Education Conference, Oklahoma City, OK. 10/23/13. doi: 10.1109/FIE.2013.6684779
- 8. **Finelli, C. J.** (2013). *Refining a taxonomy for engineering education research*. Workshop at the 2013 International Research in Engineering Education Symposium, Kuala Lumpur, Malaysia, 07/06/13.
- 9. **Finelli, C. J.**, & Borrego, M. (2013). *Refining a taxonomy for engineering education research*. Workshop at the 2013 ASEE Annual Conference & Exposition, Atlanta, GA. 06/23/13.
- 10. Smith, K. A., & **Finelli, C. J.** (2013). *Faculty development through Virtual Communities of Practice (VCP)*. Special session at the 2013 ASEE Annual Conference & Exposition, Atlanta, GA. 06/25/13.

- 11. **Finelli, C. J.**, Carpenter, D. D., Harding, T. S., & Sutkus, J. A. (2012). *An exploration of the ethical development of engineering undergraduates*. Workshop at the 2012 ASEE Annual Conference & Exposition, San Antonio, TX. 06/10/12.
- 12. **Finelli, C. J.**, & Harding, T. S. (2011). *Survey of Engineering Ethical Development Regional Workshop*. Ann Arbor, MI, 10/24/11.
- 13. Carpenter, D. D., Sutkus, J. A., **Finelli, C. J.**, & Harding, T. S. (2011). *An exploration of the ethical development of engineering undergraduates*. Mini workshop at the 41st IEEE/ASEE Frontiers in Education Conference, Rapid City, SD. 10/21/11. doi: 10.1109/FIE.2011.6142939
- 14. Pawley, A. L., Riley, D., Harding, T. S., Lord, S. M., & **Finelli, C. J.** (2009). *From active learning to liberative pedagogies: Alternative teaching philosophies in CSET education*. Special session at the 39th IEEE/ASEE Frontiers in Education Conference, San Antonio, TX. 10/19/09. doi: 10.1109/FIE.2009.5350559
- 15. Litzinger, T. A., **Finelli, C. J.**, Atman, C. J., Fortenberry, N. L., & Griffin, H. O. (2009). *Engineering education centers and academic units*. Workshop at the 2009 ASEE Annual Conference & Exposition, Austin, TX. 06/15/09.
- Harding, T. S., Carpenter, D. D., & Finelli, C. J. (2009). Ethics education or ethical development? Invited workshop at the National Science Foundation Engineering Education and Centers Awardees' Conference, Reston, VA. 02/02/09.
- 17. Harding, T. S., **Finelli, C. J.**, & Carpenter, D. D. (2008). *Ethics education or ethical development: What is the best goal for engineering education?* Workshop at the 2008 ASEE Annual Conference & Exposition, Pittsburgh, PA. 06/22/08.
- 18. Litzinger, T. A., Atman, C. J., **Finelli, C. J.**, Fortenberry, N. L., & Radcliffe, D. F. (2008). *Engineering education centers and departments as drivers of change*. Workshop at the 2008 ASEE Annual Conference & Exposition, Pittsburgh, PA. 06/22/08.
- 19. Bullard, L. G., **Finelli, C. J.**, Layton, R. A., Loughry, M. L., & Ohland, M. W. (2006). *Conducting peer evaluations using the comprehensive assessment of team member effectiveness*. Workshop at the 2006 ASEE Annual Conference & Exposition, Chicago, IL. 06/18/06.

Other publications (Poster presentations and non-refereed proceedings) (student co-authors underlined)

- 1. <u>DeMonbrun, R. M.,</u> & **Finelli, C.** (2017). *Development of a survey instrument to measure student response to instructional practices*. Poster presented at the 2017 University of Michigan Research and Scholarship in Engineering Education Poster Fair, Ann Arbor, MI.
- 2. **Finelli, C. J.,** <u>DeMonbrun, R. M.,</u> Borrego, M. J.,& <u>Shekhar, P.</u> (2055). *Development of a survey instrument to measure students' resistance to active learning.* Poster presented at the 2015 University of Michigan Research and Scholarship in Engineering Education Poster Fair, Ann Arbor, MI.
- 3. **Finelli, C. J.**, Carpenter, D. D., & Harding, T. S. (2012, Mar). *Collaborative research: A holistic assessment of the ethical development of engineering undergraduates*. Poster at the National Science Foundation Engineering Education Awardees Conference, Arlington, VA.
- 4. **Finelli, C. J.**, Carpenter, D. D., & Harding, T. S. (2011, Feb). *The Survey of Engineering Ethical Decision-Making: Developing measures of engineering students' positive ethical behavior*. Poster at the National Science Foundation Engineering Education Awardees Conference, Reston, VA.
- 5. **Finelli, C. J.**, <u>Holsapple, M. A.</u>, Sutkus, J. A., Carpenter, D. D., Harding, T. S., & <u>Walczak, K.</u> (2010, Feb). *The Survey of Engineering Ethical Decision-Making: Developing measures of engineering students' positive ethical behavior*. Poster at the National Science Foundation Engineering Education Awardees Conference, Reston, VA.

- 6. Carpenter, D. D., **Finelli, C. J.**, Harding, T. S., <u>Sutkus, J. A.</u>, & <u>Holsapple, M. A.</u> (2009, Feb). *A holistic assessment of the ethical development of engineering undergraduates*. Poster at the National Science Foundation Engineering Education and Centers Grantee Conference, Reston, VA.
- 7. Harding, T. S., **Finelli, C. J.**, Carpenter, D. D., & <u>Mayhew, M. J.</u> (2007, Nov). *Factors influencing moral development in professional education*. Roundtable discussion conducted at the 33rd Annual Conference of the Association for Moral Education, New York, NY.
- 8. **Finelli, C. J.**, Harding, T. S., Carpenter, D. D., & <u>Sutkus, J. A.</u> (2007, Sep). *Academic integrity among engineering undergraduates: Seven years of research by the E³ Team.* Poster at the National Science Foundation Engineering Education and Centers Grantee Conference, Arlington, VA.
- 9. Ohland, M. W., Loughry, M. L., Sill, B. L., Felder, R. M., Layton, R. A., **Finelli, C. J.**, Schmucker, D. G., Bullard, L. G., & Carter, R. L. (2003, Sep). *Designing a peer evaluation instrument that is simple, reliable, and valid.* Poster at the National Science Foundation Engineering and Computing Education Awardees Conference, Washington, DC.
- 10. **Finelli, C. J.** (1992, Oct). *The time-sequenced adaptive filter for linear prediction of the intraventricular electrogram.* Poster at the 1992 Third Annual GMI Industry Symposium, Flint, MI.

RESEARCH GRANTS

Current grants and contracts (listed in reverse chronological order according to start date)

- 1. **Finelli, C. J.** *Impact of flexible classroom spaces on faculty pedagogy and student behavior.* National Science Foundation Improving Undergraduate STEM Education (IUSE) Program. Award # DUE-1711533, \$300,000. 06/01/17 05/31/19.
- 2. Perkins, N. C. & **Finelli, C. J.** *Introduction and assessment of i-Newton for the engaged learning of engineering dynamics*. National Science Foundation Improving Undergraduate STEM Education (IUSE) Program. Award # DUE-1609204, \$299,992. 09/15/16 08/31/19.
- 3. Millunchick, J. M., & **Finelli, C. J.** *Research Initiation: Understanding the relationships between participation in co-curricular activities, student characteristics, and the professional formation of engineers.* National Science Foundation Professional Formation of Engineers, Research Initiation in Engineering Formation (RIEF). Award # EEC-1640417. \$150,000. 09/01/16 08/31/18.
- 4. **Finelli, C. J.**, & Prince, M. J. *Collaborative research: Understanding and reducing student resistance as a barrier to faculty change*. National Science Foundation Widening Implementation and Demonstration of Evidence-based Reforms (WIDER) Program. Award # DUE-1347718, \$211,669. 09/15/13 08/31/17.

<u>Pending grants and contracts</u> (listed in reverse chronological order according to submission date)

1. **Finelli, C. J.** *How do students respond to active learning? A systematic review of the literature.* National Science Foundation – Improving Undergraduate STEM Education (IUSE) Program. Proposal # DUE-1744407, \$99,739. 09/01/17 – 08/31/18. Proposal submitted 05/15/17.

Past grants and contracts (listed in reverse chronological order according to start date)

- 1. <u>Hirshfield, L.</u>, & **Finelli, C. J.** *The influence of team projects on engineering students' self-efficacy and interest*. University of Michigan Transforming Learning for the Third Century (TLTC) Discovery Program, \$50,000. 05/01/15 08/31/16.
- 2. **Finelli, C. J.** *Collaborative research: The SEED-PA. A practical instrument for assessing individual ethics initiatives.* National Science Foundation Transforming Undergraduate Education in STEM (TUES)

- Program. Award # DUE-1140175, \$86,656. 04/15/12 03/31/16.
- 3. **Finelli, C. J.** *Motivating change in faculty teaching practices to support a diverse student body in engineering.* National Science Foundation Course, Curriculum, and Laboratory Improvement (CCLI) Program. Award # DUE-0941924, \$239,353. 09/15/10 09/30/15.
- 4. **Finelli, C. J.** Exploring the relationship between self-efficacy and project-based learning among engineering students. National Science Foundation CAREER Program. Sub award to University of Michigan from Olin College, \$92,989. 10/01/14 09/30/15.
- 5. **Finelli, C. J.**, & <u>DeMonbrun, R. M.</u> *Faculty teaching practices: Perceptions vs. reality*. University of Michigan Rackham Spring/Summer Research Grants Program. \$13,165 (50% GSRA). 05/01/15 08/31/15.
- 6. **Finelli, C. J.**, & Borrego, M. *Workshops to create a taxonomy for engineering education research and prioritize areas of research*. National Science Foundation Engineering Education Program (EEP). Award # EEC-1240797, \$233,178. 09/15/12 12/31/14.
- 7. Perkins, N. C., **Finelli, C. J.**, & Orr, B. *Piloting i-Newton for the experiential learning of dynamics in University of Michigan physics and engineering*. University of Michigan Transforming Learning for the Third Century (TLTC) Discovery Program, \$35,905. 05/01/13 10/31/14.
- 8. Lattuca, L. R., **Finelli, C. J.**, & Lawrence, J. H. *Catalyzing Interdisciplinary collaborations: Studying the impact of M-Cubed on researchers and research*. University of Michigan M-Cubed Program, \$60,000. 12/01/12 06/30/14.
- 9. **Finelli, C. J.**, & Sutkus, J. A. *A longitudinal study of the ethical development of engineering and humanities students at the University of Michigan*. University of Michigan Office of the Vice President for Research & Horace H. Rackham School of Graduate Studies Research on Ethics in Public Life Program. \$5,190, 01/01/08 05/30/08.
- 10. **Finelli, C. J.**, King, P. M., & Dey, E. L. *Collaborative research: A holistic assessment of the ethical development of engineering undergraduates*. National Science Foundation Engineering Education Program (EEP). Award # EEC-0647532, \$548,181. 03/01/07 02/28/13.
- 11. **Finelli, C. J.** *Evaluating methods to improve teaching in engineering*. Rigorous Research in Engineering Education Minigrant Program, \$3,000. 10/15/05.
- 12. Carpenter, D. D., Harding, T. S., & **Finelli, C. J.** *An investigation into the relationships between students' level of moral development and their academic integrity.* Kern Family Foundation, \$24,450. 12/17/03.
- 13. Harding, T. S., Carpenter, D. D., & **Finelli, C. J.** *A comparison of factors that influence cheating in engineering undergraduates*. American Society of Engineering Education Educational Research and Methods Division Minigrant Program, \$2,500. 06/23/03 06/22/04.
- 14. Ohland, M. W., Bullard, L. G., **Finelli, C. J.** (co-PI), Layton, R. A., & Loughry, M. L. *Designing a peer evaluation instrument that is simple, reliable, and valid.* National Science Foundation Assessment of Student Achievement in Undergraduate Education Program. Award # DUE-0243254, \$644,590. 06/01/03 05/30/07.
- 15. Svinarich, K. A., Doty, S. L., & **Finelli, C. J.** Effects of aminooxyacetate on the metabolism of the isolated rat retina as monitored via the electroretinogram. Kettering University Research Initiation and Improvement Competition, \$5,000.06/01/98.
- 16. **Finelli, C. J.**, Svinarich, K. A., & Doty, S. L. *Time-course analysis of the electroretinogram*. Kettering University Rodes Professorship Award, \$5000. 05/01/98.
- 17. **Finelli, C. J.**, Rust, L. M., & Melton, D. E. *An innovative digital signal processing laboratory for physical systems*. National Science Foundation Instrumentation and Laboratory Improvement (ILI) Program. Award # DUE-9851088, \$64,856. 07/01/98 06/30/00.

- 18. **Finelli, C. J.** Kettering University Teaching Improvement Grant, \$1,000. 06/01/97.
- 19. Ravi, K., Thompson, M. G., **Finelli, C. J.**, Melton, D. E., & Rust, L. M. *Improved equipment for student digital signal processing laboratories*. Texas Instruments' University Program, \$17,970. 12/01/95.
- 20. Finelli, C. J. GMI Engineering & Management Institute Teaching Improvement Grant, \$1,000. 04/01/95.
- 21. **Finelli, C. J.** Application of power spectral analysis to ST segment trends for improved assessment of coronary patency. GMI Engineering & Management Institute Research Initiation/Improvement Grant, \$4,998. 11/01/93.
- 22. **Finelli, C. J.**, & Jenkins, J. M. *Adaptive filtering techniques applied to arrhythmia analysis*. The University of Michigan Rackham Research Partnership Fellowship, \$22,000. 1991.
- 23. **Finelli, C. J.** *Effect of sympathetic tone and cardiovascular drugs on ventricular electrogram morphology.* Eli Lilly and Company/Cardiac Pacemakers, Inc. Research Fellowship, \$40,000. 1989.

SERVICE

Editorial, reviewer, and consultant roles

- 1. Deputy Editor, *Journal of Engineering Education*. 07/01/17 present.
- 2. Associate Editor, *IEEE Transactions on Education*. Two, three-year terms, 07/01/14 present.
- 3. External review committee, Engineering Education Innovation Center, Ohio State University. Mar 2014.
- 4. Chair, National Science Foundation Community of Scholars panel. 2010. (PI: Roger Seals).
- 5. International planning/advisory committee member, *International Research in Engineering Education Symposium*. 2009 and 2011.
- 6. Guest co-editor, *International Journal of Engineering Education: Special Issue on Applications of Engineering Education Research*. 2009.
- 7. Reviewer:
 - o Academy of Management Learning & Education. 2016
 - o *National Science Foundation*. 2002 present.
 - o *International Journal of Engineering Education*. 2005 present.
 - o Journal of Engineering Education. 2002 present.
 - o IEEE Transactions on Education. 1998 2001 and 2013 present.
 - o IEEE Transactions on Biomedical Engineering. 1996.
 - o Proceedings of IEEE. 2002.
 - o McGraw Hill Publishing Company. 1998, 2000, and 2004.
 - John Wiley & Sons, Inc. 1997.
 - o Richard D. Irwin Publishing Company. 1996.

Invited workshop participant

- 1. Invited participant, Denise Denice Denton Emerging Leaders Workshop. Madison, WI. 06/03/16.
- 2. Invited participant, National Science Foundation / American Association for the Advancement of Science (AAAS) workshop *Measurement of teaching practices in undergraduate STEM*. Washington, DC. 12/17/12 12/19/12.

- 3. Invited participant, Engineering Education Research Colloquy 2. Indianapolis, IN. 10/18/05 10/19/05.
- 4. Invited participant, National Science Foundation workshop *Creating engineering education opportunities: Why and how*? Washington, DC. 03/06/09.
- 6. Invited participant, National Science Foundation workshop *Rigorous research in engineering education*. Golden, CO. 08/01/05 08/05/05.

Advisory boards

- 1. *Investing in instructors: Creating intelligent feedback loops in large foundational courses for undergraduate engineering*. National Science Foundation Improving Undergraduate STEM Education (IUSE). PI: Jacob Grohs, Virginia Polytechnic Institute and State University. 07/01/17 12/31/19.
- 2. Collaborative research: Supporting agency among early career engineering education faculty in diverse institutional contexts. National Science Foundation Engineering Education and Centers (EEC). PI: Alexandra Strong, Olin College. 06/01/17 05/31/20.
- 3. Collaborative research: Spatial visualization skills and engineering problem solving. National Science Foundation Engineering Core Research (ECR). PI: Sheryl Sorby, The Ohio State University. 01/17/17 08/31/20.
- 4. *Investigating entrepreneurship education as a means to developing the 21st century engineer*. National Science Foundation Improving Undergraduate STEM Education (IUSE). PI: Aileen Huang-Saad, University of Michigan. 06/15/15 05/31/17.
- 5. *Microagressions in engineering student teams: Effects on learning, performance, and persistence.* National Science Foundation Research on Gender in Science and Engineering Program. PI: Denise J. Sekaquaptewa, University of Michigan. 09/01/14 08/31/17.
- 6. Characterizing faculty discourses on gender in engineering education for effective interventions. National Science Foundation Engineering Education Program (EEP). PI: Kacey Beddoes, Oregon State University. 09/01/14 08/31/16.
- 7. *Investigating global engineering work practices to prepare 21st century engineers*. National Science Foundation CAREER award. PI: Lisa McNair, Virginia Polytechnic Institute and State University. 01/01/10 12/31/14.
- 8. Center for Excellence in Teaching and Learning, Kettering University. Sep 2011 Dec 2013.
- 9. Strengthening the Performance of Engineering and Technology Educators across Disciplines (SPEED). American Society of Engineering Education. Oct 2009 Jul 2010.

Professional societies

- 1. American Society for Engineering Education. 1994 present.
 - o Campus Representative, University of Michigan. Jun 2013 Jun 2017.
 - o Member, Frontiers in Education Steering Committee. Jul 2009 Jun 2012.
 - o Chair, Educational Research and Methods Division. Jul 2007 Jun 2009.
 - o Program Co-chair, 2006 ASEE Annual Conference & Exposition. Jul 2004 Jun 2006.
 - o Program Co-chair, 33rd IEEE/ASEE Frontiers in Education Conference. Jul 2002 Nov 2003.
 - o Director. Jul 2000 Jun 2002.
 - o New Engineering Educators Liaison. Jul 1999 Jun 2001.
- 2. American Educational Research Association. 2005 2010.
- 3. Professional and Organizational Development in Higher Education Network. 2001 2009.

- 4. Institute of Electrical and Electronic Engineers. 1985 2009; 2016 present.
- 5. IEEE Education Society. 1994 2009; 2016 present.
 - o Senior member, 2017 present

Institute committees and task forces (University of Michigan)

- 1. Higher Learning Commission Accreditation Working Group. May 2017 present.
- 2. Academic Reporting Toolkit (ART) Steering Group. Feb 2015 Sep 2015.
- 3. Search Committee, Director of Center for Research on Learning and Teaching. Jan 2015 Jun 2015.
- 4. Collaborative Domain Group. Oct 2012 May 2013.
- 5. Responsible Conduct of Research Task Force. Sep 2009 Dec 2010.
- 6. Ethics in Public Life Task Force. Sep 2006 Jul 2007.

School and department committees and task forces (University of Michigan)

- 1. Director, ECE Education Research Technical Area Group, ECE Division. Dec 2016 Aug 2018.
- 2. Committee for an Inclusive Department, ECE Division. Sep 2016 present.
- 3. ADVANCE Launch Committee for Joi Mondisa. Sep 2016 present.
- 4. Education Committee, Michigan Institute for Computational Discovery & Engineering. Jun 2016 present.
- 5. Engineering Education Research PhD Program Development Committee (Chair), College of Engineering. Oct 2015 present.
- 6. Search Committee (Chair), Engineering Education Research Faculty, College of Engineering. Sep 2015 present.
- 7. Undergraduate Academics Committee, ECE Division. Sep 2015 present.
- 8. Information Technology Faculty Council, College of Engineering. Jan 2015 present.
- 9. Research Advisory Committee, School of Education. Feb 2014 present.
- 10. Faculty Advisory Committee, Center for Engineering Diversity and Outreach, College of Engineering. Jul 2010 Dec 2012.
- 11. Faculty Advisory Board, Center for Research on Learning and Teaching in Engineering. Jan 2010 Aug 2016.
- 12. Search Committee, Director of Center for Research on Learning and Teaching in Engineering. Feb 2016 to Jun 2016.
- 13. Faculty Steering Committee, Rackham Certificate in Engineering Education. Mar 2009 present.
- 14. Academic Practices for a Positive Learning Environment, College of Engineering. Jan 2008 May 2008.
- 15. Diversity and Outreach Council, College of Engineering. Jul 2005 Jun 2010.
- 16. Strategic Planning Implementation Committee, College of Engineering, Nov 2003 Dec 2004.
- 17. Engineering Teaching Academy, College of Engineering. May 2003 Dec 2010.

<u>Institute committees and task forces (Kettering University)</u>

1. Center for Excellence in Teaching and Learning Advisory Board (Chair). Apr 2001 – Jul 2003.

- 2. Faculty Senate Committee on Thesis Learning Objectives. Sep 2002 May 2003.
- 3. Faculty Development Strategic Planning Committee. Aug 2002 Jan 2003.
- 4. Kettering Educators Encouraging Persistence, Executive Committee. Jul 2002 May 2003.
- 5. Kettering University Alumni Association Rodes Professorship Selection Committee. Jun 2000, Jun 2002.
- 6. University Council (formerly Executive Council). Jan 2002 Jan 2003.
- 7. Online Education Committee. Jan 2002 Jan 2003.
- 8. Teaching and Learning Strategic Planning Committee. Dec 2001 Jun 2002.
- 9. Faculty Gender Equity Task Force. Mar. 2001 May 2002. (Chair: Dec 2001 May 2002).
- 10. Teaching Fellows. May 2000 May 2002.
- 11. Faculty Senate. Jan 1999 Dec 2000 and Jan 1994 Dec 1995.
- 12. Curriculum Reform Task Force. Jul 1998 Dec 1999. (Chair: Jan 1999 Dec 1999).
- 13. GMI Teaching Improvement Grant Review Committee. Apr 1997, Sep 1996, Feb 1996, Apr 1995.
- 14. GMI Research Initiation/Improvement Grant Review Committee. Apr 1995.
- 15. Academic Review Committee. Jan 1997 Dec 1999.
- 16. Recruitment, Admission, Development and Review Committee. Jan 1997 Dec 1999.
- 17. Research Proposal Task Force. Aug 1995 Aug 1997.
- 18. Faculty Fair Treatment Task Force. Jan 1994 Jul 1994.
- 19. Graduate Program Development and Review Committee. Jan 1993 Dec 1995.
- 20. Women Faculty Task Force. Sep 1992 Sep 1996. (Chair: Mar. 1994 Jun 1995).

Department committees (Kettering University)

- 1. ECE Curriculum Committee. Jan 1994 Dec 2000.
 - o ECE 230: Signals and Systems course coordinator: Jan 1997 Apr 2003.
 - o ECE 210: Circuits I course coordinator: Jan 1995 Dec 2000.
 - ECE 211: Circuits II course coordinator: Jan 1995 Dec 2000.
 - o ECE 310: Circuits II course coordinator: Jan 1995 Dec 2000.
 - o ECE 412: Digital Signal Processing course coordinator: Jan 1995 Dec 2001.
- 2. ECE Department Head Search Committee. Nov 1997 Jul 1998.
- 3. ECE Faculty Search Committee. Nov 1996 Dec 1997.
- 4. Biomedical Engineering Minor Committee. Jan 1999 Jul 1999.
- 5. ECE Graduate Curriculum Committee. Jan 1993 Dec 1997. (Chair: Jan 1993 Dec 1995).

TEACHING

Short courses

1. *Leadership Virtual Community of Practice*. 10-session, online National Science Foundation course on evidence-based teaching practices and faculty development (co-taught with Karl A. Smith). 2012 and 2013.

- 2. *National Effective Teaching Institute*. 4-day, in-person, application-only workshop on effective teaching (cotaught with Rebecca Brent, Richard M. Felder, & Michael J. Prince).
 - o Tampa, FL. 01/03/13 01/06/13.
 - o San Antonio, TX. 06/06/12 06/09/12.

<u>University courses (University of Michigan)</u>

- 1. EECS 215. Introduction to Electric Circuits (3 credits). Winter 2016, Fall 2016, Winter 2017.
- 2. ENGR/CHE 580. *Teaching Engineering* (3 credits, co-taught with S. Montgomery, CHE). Fall 2015, Fall 2014.

Faculty learning communities (University of Michigan)

- 1. *Teaching Circle for Large Engineering Courses*. 4-session course for engineering faculty to learn about and apply evidence-based teaching in their large courses.
 - o Fall 2011, pilot program with Chemical Engineering.
 - o Winter 2012 (co-taught with Joanna Millunchick, Materials Science and Engineering).
 - o Fall 2012.
 - o Winter 2015 (co-taught with Joanna Millunchick, Materials Science and Engineering).
- 2. Learning and doing engineering education research
 - Fall 2013 (co-taught with Kerby Shedden, Center for Statistical Consultation and Research), four sessions.
 - o Fall 2012, three sessions.
- 3. Works-in-progress. Networking and data sharing for engineering education researchers
 - o Winter 2014, seven sessions.
 - o May 2012, five sessions.
- 4. Investigating Student Learning: Networking and data sharing for engineering grant recipients
 - o 2014-2015, five sessions.
 - o 2013-2014, five sessions.
 - o 2010-2011.

<u>Faculty development workshops (University of Michigan)</u> (listed in order of number of times delivered)

- 1. Strategies for succeeding as a new engineering faculty member, ten times. 2006 2014.
- 2. *Student teams in engineering*, ten times. 2004 2013.
- 3. *Ethics in engineering education*, seven times. 2006 2011.
- 4. *Investigating student learning*, seven times. 2008 2014.
- 5. *Best practices in undergraduate teaching*, six times. 2003 2010.
- 6. Writing a successful NSF CAREER proposal, six times. 2007 2012.
- 7. Learning styles in the classroom, three times. 2003, 2004, 2009.
- 8. Learning and doing engineering education research, two times. 2008 and 2010.
- 9. *Teaching portfolio*, two times. 2004 and 2006.
- 10. Effective lecturing for large engineering classes. 11/01/04.

11. Teaching for retention in engineering. 02/18/10.

University courses (Kettering University)

ENG 100: Fundamentals of Problem Solving	ECE 321: Electronics I Lab
ECE 210: Circuits I	ECE 322: Electronics II Lab
ECE 211: Circuits I Lab	ECE 330: Digital Signal Processing
ECE 230: Signals and Systems	ECE 340: Electromagnetic Fields I
ECE 303: Electrical Engineering II Lab	ECE 440: Electromagnetic Fields II
ECE 310: Circuits II	ECE 612: Graduate Digital Signal Processing

ADVISING FOR STUDENTS AND POSTDOCTORAL FELLOWS

<u>Thesis committees</u> (listed in reverse chronological order)

- 1. Rachel Vitali, Ph.D. Candidate, Mechanical Engineering. University of Michigan. Co-advisor, Sept 2016 Aug 2019 (expected).
- 2. Michelle M. Soledad, Ph.D. Candidate, Engineering Education. Virginia Tech. Ph.D. Advisory Committee, Dec 2016 May 2018 (expected).
- 3. R. Matthew DeMonbrun, Ph.D. Candidate, Higher Education. University of Michigan. Doctoral dissertation committee chair, Dec 2017 (expected). Preliminary proposal approved 1/30/17.
- 4. Robin R. Fowler, Ph.D., Educational Technology. *Talk in teams: Participation in and characteristics of team conversations face-to-face and in synchronous chat*. Michigan State University. Doctoral dissertation committee member, May 2014.
- 5. William Phillips, M. S., Design Science. University of Michigan. Dissertation committee co-chair, 2011.
- 6. Janel A. Sutkus, Ph. D., Higher Education. *An assessment of admissions strategy effects and self-selection issues in an enrollment study of Kettering University*. University of Michigan. Doctoral dissertation committee member, Jun 2008.
- 7. Cynthia P. Veenstra, Ph.D., Industrial and Operations Engineering. *Modeling engineering freshman success*. University of Michigan. Doctoral dissertation committee member, Dec 2007.

Faculty mentorshiop

- 1. Alex Coso-Strong, Assistant Professor, Olin College. ASEE Apprentice Faculty Grant mentor. June 2015 present.
- 2. ECE new faculty. Monthly meetings, Aug 2016 to present.
- 3. ECE women faculty. Monthly meetings, May 2016 to present.
- 4. Core EER faculty. Monthly meetings, Sep 2016 to present.

Postdoctoral fellow mentorship (University of Michigan) (listed in reverse chronological order)

- 1. DeLean Tolbert, Ph.D., Jan 2017 present.
- 2. Aaron W. Johnson, Ph.D., Electrical Engineering and Computer Science. June 2016 present.
- 3. Laura J. Hirshfield, Ph.D., Chemical Engineering. Purdue University. Oct 2014 Sep 2016.
- 4. Julianne Vernon, Ph.D., Environmental Engineering, University of Florida. Sep 2014 to Jun 2015.

- 5. Golnoosh Rasoulifar, Ph.D., Industrial Engineering. University of Grenoble, France. Feb 2014 Dec 2014.
- 6. Shanna R. Daly, Ph.D., Engineering Education. Purdue University. Jan 2009 Aug 2010.

<u>Graduate student support through research grants (University of Michigan)</u> (listed in reverse chronological order)

- 1. Trevion Henderson, Higher Education. Mar 2017 present.
- 2. Rachel Vitali, Mechanical Engineering. Sep 2016 present.
- 3. R. Matthew DeMonbrun, Higher Education. Dec 2013 present.
- 4. Jessica Canas, Higher Education. May 2015 present (Master's)
- 5. W. Ethan Eagle, Aerospace Engineering. Apr 2011 Sep 2011.
- 6. Eunjong Ra, Higher Education. Sep 2010 Dec 2011.
- 7. Brian A. Burt, Higher Education. Jul 2010 Dec 2012.
- 8. Robert M. Bielby, Higher Education. Mar 2010 May 2012.
- 9. Kelly Walczak, Higher Education. May 2009 Dec 2010.
- 10. Matthew A. Holsapple, Higher Education. May 2008 May 2012.
- 11. Janel A. Sutkus, Higher Education. Jun 2007 Jun 2008.
- 12. Matthew J. Mayhew, Higher Education. Jun 2003 Aug 2004.
- 13. Honor J. Passow, Higher Education. May 2003 June 2005.

<u>Undergraduate student support (University of Michigan)</u> (listed in reverse chronological order)

- 1. Julia Kerst, Electrical Engineering and Computer Science. Summer Undergraduate Research Experience and Independent Study. June 2016 Dec 2016.
- 2. Hanna Pfershy, Biomedical Engineering. Summer Undergraduate Research Experience and Independent Study. June 2016 Dec 2016.
- 3. Charlotte L. Sawyer, Industrial and Operations Engineering. Summer Research Opportunity Program. Jun 2014 Aug 2014.
- 4. Ameen B. Al-Khafaji, Electrical Engineering. Undergraduate Research Opportunity Program. Sep 2011 May 2012.
- Martha J. Neubauer, Chemical Engineering. Undergraduate Research Opportunity Program. Sep 2011 May 2012.

<u>Fifth-year thesis projects (Kettering University)</u> (listed in reverse chronological order)

- 1. Eric D. Drews. *Vocoder identification through signature exploitation*. U.S. Government. Falls Church, VA. Jun 2003.
- 2. Michael A. Rowe. *Implementation of a windshield glass testing apparatus for a North American market study of automotive glass*. Robert Bosch Co. Farmington Hills, MI. Jun 2003.
- 3. Justin McCurdy. Web-based teaching evaluations. Kettering University MISC 499-01. Flint, MI. Fall 2002.
- 4. Angela M. Hamady. Design and implementation of an electronic error-proofing system for a manufacturing assembly line. GM: North American Car Group. Hamtramck, MI. Jun 2001.
- 5. Brian E. Rathgeb. Hit avoidance testbed for sensor and countermeasure integration. U.S. Army, Tank Auto

- Command. Warren, MI. Jun 2001.
- 6. David J. Kuder. *Design of a roll feed and cutter test fixture*. Xerox Engineering Systems. East Rochester, NY. Jun 2000.
- 7. Thuong V. Huynh. *Investigating the feasibility of acoustic crash sensing*. TRW Safety Systems. Farmington Hills, MI. Jun 2000.
- 8. Matthew J. Niese. Engineering *proposal to eliminate the 3.0L Vulcan V6 engine assembly hot test*. Ford Motor, Engine Division. Lima, OH. Jun 2000.
- 9. Jon R. Jarvais. Cylinder head assembly error proofing. GM Power Train Group. Livonia, MI. Jun 1999.
- 10. Peter M. Mosher, P. M. *Integration of radio frequency communications with Lamb Technicon machinery*. Lamb Technicon. Warren, MI. Jun 1999.
- 11. Brenda J. Newlin, B. J. Visual and aural data processing for electrical system automated test. GM Mid-Lux Car Group Headquarters. Warren, MI. Jun 1999.
- 12. Edmund K. Tse, E. K. *Dynamically integrated system communication operator*. GM Truck Group Headquarters. Pontiac, MI. Jun 1999.
- 13. Zoltan Kovacs, Z. *Design, installation, and implementation of a supervisory control and acquisition system.* Modern Tool and Die. Cleveland, OH. Jun 1998.
- 14. Mark D. Wagner. *H-electroslag remelt furnace level II human machine interface*. Carpenter Technology Corporation. Reading, PA. Jun 1998.
- 15. Jason M. Dalton. *Evaluation of motion/position feedback devices*. Thyssen Production Systems. Auburn Hills, MI. Dec 1997.
- 16. Kenneth M. Haas. The talking photo album. Eastman Kodak Company. Rochester, NY. Jun 1996.
- 17. Trevor D. Johnson. *Design and development of a steering rate and direction sensor for automotive applications*. First Inertia Switch, Ltd. Grand Blanc, MI. Jun 1996.
- 18. Scott M. Lima. *Microprocessor based system for electric fuel pump speed determination and control using armature current waveform pulses*. Universal Systems. Flint, MI. Jun 1996.
- 19. Jamie T. Prescott. *Electrical test equipment for the enhanced audio climate control module*. Ford Electronics Manufacturing Corp. Markham, Ontario, Canada. Jun 1996.
- 20. Judd R. Rowher. P61-3, 4, 10 MET compatibility. Sandia National Labs. Albuquerque, NM. Jun 1996.