**ALEXANDRA COSO STRONG**

**SCHOOL OF UNIVERSAL COMPUTING, CONSTRUCTION, AND**

**ENGINEERING EDUCATION**

**STEM TRANSFORMATION INSTITUTE**

**CURRICULUM VITAE**

**EDUCATION**

**Degree Institution Field Date**

Ph.D. Georgia Institute of Technology Aerospace Engineering May 2014

M.S. University of Virginia Systems Engineering August 2010

B.S. Massachusetts Institute of Technology Aerospace Engineering June 2007

**FULL-TIME ACADEMIC EXPERIENCE**

**Institution Rank Field Dates (Month &Year)**

Florida International Assistant Professor Engineering Education August 2018 - Present

University

Olin College of Assistant Professor Systems Design August 2015 –

Engineering and Engineering August 2018

Georgia Institute of Postdoctoral Scholar Center for Enhancement May 2014 – July 2015

Technology of Teaching and Learning

**PART-TIME ACADEMIC EXPERIENCE (list most recent first)**

**Institution Rank Field Dates (Month & Year)**

N/A

**NON-ACADEMIC EXPERIENCE**

**Place of Employment Title Dates**

Boeing Commercial NSF Engineering Innovation Fellow June 2012 – August 2012

**EMPLOYMENT RECORD AT FIU**

**Rank Dates**

Assistant Professor 08/2018 – Present

**PUBLICATIONS IN DISCIPLINE**

**Journal Articles** [3 PR, 2 NPR] (\*Undergraduate student advisee)

|  |  |  |
| --- | --- | --- |
| P3 | **Coso Strong, A.** and Sekayi, D. (2018). "Exercising professional autonomy: Doctoral students’ preparation for academic careers." *Studies in Graduate and Postdoctoral Education.* Vol. 9, No. 2, pp. 243-258. https://doi.org/10.1108/SGPE-D-18-00005 | 2018 |
| N2 | [NPR] **Coso Strong, A.** & Lynch, C. (2018) “Learning from a Moonshot: What Next for College Summer Reading?” *The New England Journal of Higher Education*.  | 2018 |
| N1 | [NPR] Pritchett, A. & **Coso Strong, A.** (2016) “Integrating Cognitive Engineering into Industry Design Teams” *Journal of Cognitive Engineering and Decision Making*. Vol. 10, No. 2, pp.134-137 | 2016 |
| P2 | **Coso, A**. and Pritchett, A. (2015) “The Role of Design Teams in the Integration of Stakeholder Considerations.” *Journal of Aircraft*. Vol. 52 (4), pp. 1136-1145. | 2015 |
| P1 | Rowan-Kenyon, H., **Coso, A**., Swan, A., Bailey, R., and Creager, M.F. (2012) “The Role of Gender in Student Perceptions of Leadership on Interdisciplinary Engineering Teams.” *Journal of Women and Minorities in Science and Engineering.* Vol. 18 (2)  | 2012 |

**Conference Proceedings** [34 PR, 10 NPR] (\*Undergraduate student advisee, !Best Paper Award)

|  |  |  |
| --- | --- | --- |
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| P34 | [Accepted] Henderson, G., Kendall, M., **Coso Strong, A**., & Basalo, I. (2019) “Rethinking Undergraduate Engineering Education at Hispanic Serving Institutions: Emerging Research Areas from a Travelling Workshop Series.” American Society for Engineering Education: Proceedings of the 2019 ASEE Annual Conference and Exposition. Tampa, FL | June 2019 |
| P33 | [Accepted] **Coso Strong, A.**, Kendall, M., Basalo, I., & Henderson, G. (2019) “Impact of faculty development workshops on instructional faculty at Hispanic-serving institutions.” American Society for Engineering Education: Proceedings of the 2019 ASEE Annual Conference and Exposition. Tampa, FL | June 2019 |
| P32 | [Accepted] Smith-Orr, C., Bodnar, C.A., **Coso Strong, A.**, Lee, W., Faber, C., McCave, E. (2019). “Collaborative Research: Supporting Agency among Early Career Engineering Education Faculty in Diverse Institutional Contexts: Developing a Framework for Faculty Agency.” American Society for Engineering Education: Proceedings of the 2019 ASEE Annual Conference and Exposition. Tampa, FL | June 2019 |
| N10 | [NPR] Lande, M., **Coso Strong, A.,** and Adams, R. (2019). “Providing Pedagogical Support for Design Instructors to Support Learning through a Design Coaching Play (poster).” Proceedings of the Clive L. Dym Mudd Design Workshop XI. Claremont, CA. | May 2019 |
| P31 | Kendall, M., Basalo, I., **Coso Strong, A.,** & Henderson, G. (2019). “Exploring Faculty Perceptions of Students’ Characteristics at Hispanic-Serving Institutions.” Presented at the Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference, Crystal City, VA. | Apr. 2019 |
| P30 | Boyd-Sinkler, K., Waters, R. C., Sikder, Y. Y., Taylor, A. R., Artiles, M. S., **Coso Strong, A**., & Lee, W. C. (2019). “Work in Progress: Applying Transition Theory to an Exploration of the High-School-to-College Transition Experiences of Students from Underrepresented Ethnic/Racial Groups.” Presented at the Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference, Crystal City, VA. | Apr. 2019 |
| P29 | Govindasamy, S., Christianson, R., Geddes, J., Lee, C., Michalka, S., Ruvolo, P., Somerville, M., and **Coso Strong, A.** (2018) "Work-In-Progress: A Contextualized, Experiential Learning Approach to Quantitative Engineering Analysis." American Society for Engineering Education/IEEE: Proceedings of the ASEE/IEEE Frontiers in Education Conference. San Jose, CA. | Oct. 2018 |
| N9 | [NPR] **Coso Strong, A.,** Lande, M., and Adams, R.(2018) "Special Session: Put me in coach! Developing a design playbook for instructors to help engineering students do design." American Society for Engineering Education/IEEE: Proceedings of the ASEE/IEEE Frontiers in Education Conference. San Jose, CA. | Oct. 2018 |
| N8 | [NPR] Brunhaver, S., Jesiek, B., **Coso Strong, A.,** Korte, R., and Stevens, R. (2018) "Special Session: Research on Engineering Practice: Catalyzing a Scholarly Community" American Society for Engineering Education/IEEE: Proceedings of the ASEE/IEEE Frontiers in Education Conference. San Jose, CA. | Oct. 2018 |
| **P28** | **Coso Strong, A.,** Smith-Orr, C., Bodnar, C., Lee, W., Faber, C., and McCave, E., (2018). "Developing a Critical Incident-Centered Transition Theory Framework to Explore Engineering Education Research Faculty Transitions." American Society for Engineering Education: Proceedings of the 2018 ASEE Annual Conference and Exposition. Salt Lake City, UT. | June 2018 |
| N7 | [NPR] McCave, E., Faber, C., Bodnar, C., Lee, W., Smith-Orr, C., and **Coso Strong, A.** (2018) "Collaborative Research: Supporting Agency among Early Career Engineering Education Faculty in Diverse Institutional Contexts American Society for Engineering Education: Proceedings of the 2018 ASEE Annual Conference and Exposition. Salt Lake City, UT | June 2018 |
| P27 | Sarang-Sieminski, A., Michalka, S., **Coso Strong, A.,** and Woodard, J. (2018) "Winning Day One: Setting Up Capstone Students for Success." Proceedings of the 2018 Capstone Design Conference. Rochester, NY | May 2018 |
| P26 | Cieminski, M.\* and **Coso Strong, A.** (2017). “An Exploratory Study of Power Dynamics and Feedback in Design Reviews.” American Society for Engineering Education: Proceedings of the 2017 ASEE Annual Conference and Exposition. Columbus, OH.  | June 2017 |
| P25 | Meyer, S.\* and **Coso Strong, A**. (2017). “Iterating on Students’ Perceptions of Iteration in the Design Process: An Exploratory Study.” American Society for Engineering Education: Proceedings of the 2017 ASEE Annual Conference and Exposition. Columbus, OH.  | June 2017 |
| P24 | Stockman, T.\*, Kincaid, C.\*, Heale, T.\*, Meyer, S.\*, and **Coso Strong, A.** (2017). “Preparing Students for a Collaborative Engineering Design Work Environment: A Study of Practicing Engineers.” American Society for Engineering Education: Proceedings of the 2017 ASEE Annual Conference and Exposition. Columbus, OH.  | June 2017 |
| P23 | Faber, C., Smith-Orr, C., Bodnar, C., **Coso Strong, A.,** Lee, W., and McCave, E., (2017). “Best Practices for Developing a Virtual Peer Mentoring Community.” American Society for Engineering Education: Proceedings of the 2017 ASEE Annual Conference and Exposition. Columbus, OH.  | June 2017 |
| P22 | Solis, F., **Coso Strong, A.,** Adams, R., Turns, J., and Crismond, D. (2016) “Towards a Scholarship of Integration: Lessons from Four Cases.” American Society for Engineering Education: Proceedings of the 2016 ASEE Annual Conference and Exposition. New Orleans, LA. | June 2016 |
| P21 | Faber, C., Bodnar, C., **Coso Strong, A.,** Lee, W., McCave, E., and Smith, C. (2016) “Narrating the experiences of first-year faculty in Engineering Education Research Community: Developing a qualitative, collaborative research methodology.” American Society for Engineering Education: Proceedings of the 2016 ASEE Annual Conference and Exposition. New Orleans, LA. | June 2016 |
| P20 | **Coso Strong, A.,** Chua, M., and Cutler, S. (2016) “Talking ‘faculty development’ with engineering educators, then talking ‘engineering education’ with faculty developers: A collaborative reflection on working across communities.” American Society for Engineering Education: Proceedings of the 2016 ASEE Annual Conference and Exposition. New Orleans, LA. | June 2016 |
| N6 | [NPR] Chua, M., Cutler, S., and **Coso Strong, A.** (2015) “Using the Engineering Design Process to Reflect on STEM Outreach.” Proceedings of the Professional and Organizational Development Network Annual Meeting. San Francisco, CA. | Nov. 2015 |
| N5 | [NPR] Cutler, S., **Coso Strong, A.**, and Chua, M. (2015) “Special Session: Exploring the black box of dissemination: The role of professional and organizational development.” Proceedings of Frontiers in Education Conference. El Paso, TX. | Oct. 2015 |
| P19 | **Coso, A**. and Sekayi, D. (2015) “Exploring the Role of Institutional Climate in Preparing Engineering Doctoral Students for Academic Careers.” American Society for Engineering Education: Proceedings of the 2015 ASEE Annual Conference and Exposition. Seattle, WA. | June 2015 |
| P18 | **!Coso, A.**, Watson, M.K., and Llewellyn, D. (2015) “What makes an Undergraduate Course Impactful? An Examination of Students’ Perceptions of Instructional Environments.” American Society for Engineering Education: Proceedings of the 2015 ASEE Annual Conference and Exposition. Seattle, WA.  | June 2015 |
| P17 | Sekayi, D. and **Coso, A.** (2015) “Moving in to the Professoriate: A Case Study of a Program for Students Pursuing Faculty Careers at a Research-Focused University.” American Educational Research Association Annual Meeting. Chicago, IL. | April 2015 |
| P16 | Newstetter, W.C., Le Doux, J.M., Waller, A.A., **Coso, A.**., Koretsky, M.D., and Champagne, A.B. (2014) "Building dispositions towards models and model-based reasoning in engineering education." American Society for Engineering Education/IEEE: Proceedings of the 44th ASEE/IEEE Frontiers in Education Conference. Madrid, Spain | Oct. 2014 |
| P15 | Fleming, S.B. and **Coso, A**. (2014) “Viewing an Interdisciplinary Human- Centered Design Course as a Multiteam System: Perspectives on Cooperation and Information Sharing.” Proceedings of the 10th Design Thinking Research Symposium. West Lafayette, IN. | Oct. 2014 |
| N4 | [NPR] Sekayi, D. and **Coso, A**. (2014) “Moving toward Professional Self- Authorship: A Case Study of Graduate Students in a Program for Students Pursuing Faculty Careers.” Proceedings of the Georgia Educational Research Association Annual Conference. Savannah, GA | Oct. 2014 |
| **P14** | **Coso, A**. and Pritchett, A. (2014) “The Development of a Rubric to Evaluate and Promote Students’ Integration of Stakeholder Considerations into the Engineering Design Process.” American Society for Engineering Education: Proceedings of the 2014 ASEE Annual Conference and Exposition. Indianapolis, IN | June 2014 |
| P13 | Rathore, G., **Coso, A**., and Carberry, A. (2014) "Engaging ASEE Student Membership through the Creation of a Student-Inclusive ASEE Program." American Society for Engineering Education: Proceedings of the 2014 ASEE Annual Conference and Exposition. Indianapolis, IN | June 2014 |
| N3 | [NPR] **Coso, A**. and Pritchett, A. (2014) “Incorporating Stakeholder Considerations in the Aircraft Design Process: A Focus on Aircraft Design Education.” Proceedings of AIAA SciTech. National Harbor, MD.  | Jan. 2014 |
| **P12** | **Coso, A**. and Pritchett, A. (2013) “The Integration of Stakeholder Requirements within Aerospace Engineering Design Education.” American Society for Engineering Education: Proceedings of the 2013 ASEE Annual Conference and Exposition. Atlanta, GA.  | June 2013 |
| P11 | Watson, M.K. and **Coso, A**. (2013) “Examining Graduate Students’ Philosophies of Education: An Exploratory Study.” American Society for Engineering Education: Proceedings of the 2013 ASEE Annual Conference and Exposition. Atlanta, GA. | June 2013 |
| N2 | [NPR] **Coso, A**. and Pritchett, A. (2013) “Stakeholder Requirements in the Context of Aerospace Vehicle Systems Design: Implications for Engineering Education and Industry.” Proceedings of the 2013 Georgia Tech STEM Education Research Expo. | Feb. 2013 |
| P10 | !Bailey, R., Dugan, J., **Coso, A**., and McFarland, M. (2012) “ECE/SYS Integration: Early Findings on Graduates from a Multi-year Curriculum focused on Technology Systems Integration.” American Society for Engineering Education: Proceedings of the 2012 ASEE Annual Conference and Exposition. San Antonio, TX.  | June 2012 |
| P9 | **Coso, A.,** Louis, R., London, J., Ngambeki, I., and Sattler, B. (2012) “Exploring the Reasons for Collaboration and Cooperation among Graduate Student Researchers.” American Society for Engineering Education: Proceedings of the 2012 ASEE Annual Conference and Exposition. San Antonio, TX.  | June 2012 |
| P8 | **Coso, A.,** Fleming, E., and Pritchett, A. (2011) “Characterizing Pilots’ Interactions with the Aircraft Collision Avoidance System.” Proceedings of the 16th International Symposium on Aviation Psychology. Dayton, OH. | Oct. 2011 |
| P7 | **Coso, A**. and Bailey, R. (2011) “The Effect of Previous Team Experiences on Students’ Perceptions of Interdisciplinary Engineering Problems.” American Society for Engineering Education: Proceedings of the 2011 ASEE Annual Conference and Exposition. Vancouver, B.C. | June 2011 |
| P6 | Bailey, R., **Coso, A**., Rowan-Kenyon, H., Cabral, M., Dugan, J., and Creager, M. (2011) “Principles and Strategies for Developing and Implementing an Interdisciplinary Undergraduate Curriculum”. American Society for Engineering Education: Proceedings of the 2011 ASEE Annual Conference and Exposition. Vancouver, B.C. | June 2011 |
| P5 | Carberry, A., Bumblauskas, D., **Coso, A**., and Torres-Ayala, A. (2011) “Student Satisfaction with ASEE Activities and its Impact on ASEE Student Membership.” American Society for Engineering Education: Proceedings of the 2011 ASEE Annual Conference and Exposition. Vancouver, B.C.  | June 2011 |
| N1 | [NPR] Quinlan, O., Van Dyk, R., **Coso, A.,** and Bailey, R., (2011) “Improving the Labeling Process of an Argentine Winery by Reducing Time to Shipment.” Proceedings of the 2011 IEEE Systems and Information Engineering Design Symposium. Charlottesville, VA.  | May 2011 |
| P4 | Rowan-Kenyon, H., **Coso, A**., Swan, A., Bailey, R., and Shoffner, M. (2010) “Students’ Perceptions of Leadership on Interdisciplinary Engineering Teams.” Association for the Study of Higher Education: Proceedings of 2010 ASHE Annual Conference. Indianapolis, IN.  | Nov 2010 |
| P3 | **Coso, A**., Bailey, R., and Minzenmayer, E. (2010) “How to Approach an Interdisciplinary Engineering Problem: Characterizing Undergraduate Engineering Students’ Perceptions.” American Society for Engineering Education/IEEE: Proceedings of the 40th ASEE/IEEE Frontiers in Education Conference. Washington, D.C.  | Oct. 2010 |
| P2 | **Coso, A**. and Bailey, R. (2010) “Examining Students’ Perceptions of Interdisciplinarity Based on Gender and Disciplinary Affiliation.” American Society for Engineering Education: Proceedings of the 2010 ASEE Annual Conference and Exposition. Louisville, KY.  | June 2010 |
| P1 | Bailey, R., Rowan-Kenyon, H., Swan, A., Shoffner, M., and **Coso, A**. (2010). “Implementing an Interdisciplinary Engineering Program – Recruiting Students, Building Courses, Developing a Community.” American Society for Engineering Education: Proceedings of the 2010 ASEE Annual Conference and Exposition. Louisville, KY.  | June 2010 |

**Chapters in Books (give complete bibliographical references)**

|  |  |
| --- | --- |
| * **Coso Strong, A.,** Lande, M., and Adams, R. (2019). "Teaching without a net: Mindful design education." In D. Schaefer, G. Coates, and C. Eckert (Eds.), *Design Education Today: Technical Contexts, Programs and Best Practices.* (1st ed.) Springer International Publishing. p. 1-21
 | 2019 |

**Government Reports or Monographs (give complete bibliographical references)**

Pritchett, A., Durso, F., Kim, S.Y., Cleveland, W.P., **Coso, A**., Fleming, E.S., 2011
and Wissink, J.H.A. (2011). *A Review of Pilot-Interaction with TCAS*
(Contractor Report, NextGen Flight Deck Human Factors Research) Atlanta:
Georgia Institute of Technology.

**Book Reviews**

N/A

**OTHER PUBLICATIONS**

|  |  |
| --- | --- |
| Sekayi, D and **Coso Strong, A.** (2017)“The Crooked Pathway to Analytic Induction: A Case Study of Making Mid-Course Corrections in the Data Analysis Process.” SAGE Research Methods Cases Part 2. <http://dx.doi.org/10.4135/9781473958296> | 2017 |

**PRESENTED PAPERS, AND LECTURES**

|  |  |  |
| --- | --- | --- |
| Communicating and Collaborating in Aerospace Vehicle Design | University of Illinois, Urbana-Champaign | Apr. 2019 |
| Exploring the role of research on engineering practice in engineering education | Ohio State University | Jan. 2019 |
| Learning from professional practice to support engineering education | Florida International University, STEM Transformation Institute DBER Seminar | Oct. 2018 |
| Exploring the role of research on engineering practice and work environments in engineering education | Virginia Tech | Feb. 2018 |
| Learning from engineering practice to inform educational design | Olin College of Engineering, President’s Council | Oct. 2017 |
| From *in vivo* to *in vitro*: Translating Industry Needs into Undergraduate Learning Experiences | Purdue University | Oct. 2015 |
| Implementing evidence-based practices to support students’ development as problem-solvers | Boise State University | Feb. 2015 |
| From *in vivo* to *in vitro*: Translating Industry needs into Undergraduate Learning Experiences | Clemson University | Nov. 2014 |
| The Engineering Thinking Process: Teaching an Approach to Engineering Problem Solving in Core Courses | Georgia Institute of Technology | Oct. 2014 |
| Presenting! (co-presented with Chua, Z.) | Georgia Institute of Technology | Oct. 2013 |
| Transitioning from Undergrad to Grad School | Georgia Institute of Technology | Mar. 2013 |
| Research Methods for Engineering Education Research (co-presented with Margulieux, L.)  | Georgia Institute of Technology | Dec. 2012 |
| The Art and Science of Reading, Writing, and Presenting (co-presented with Vedomske, M. and Thekdi, S.) | University of Virginia | Feb. 2010 |
| Swimming in Questionnaire & Survey Data: How I got from Qualitative Data to a Quantitative Survey & My Next Steps | University of Virginia | Nov. 2009 |

**CREATIVE WORK** (\*below are workshops designed and facilitated)

|  |  |  |
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| “What’s in your Syllabus?” Designing a Culturally Relevant Engineering Syllabus and Course (with Borrego, M. and Moore Mensah, F.) | Society for Hispanic Professional Engineers: Faculty Development Symposium | November 2018 |
| Research on Engineering Practice (with Brunhaver, S., Jesiek, B., and Korte, R.) | Santa Clara University | October 2018 |
| Co-designing a research agenda to amplify engineering education efforts at HSIs (with Kendall, M, Basalo, I., and Henderson, G.) | ASEE Annual Conference | June 2018 |
| Scrum Project Management for Complex Projects (with Sarang-Sieminski, A.) | ASEE Annual Conference | June 2018 |
| Rethinking Engineering Education at HSIs (with Basalo, I., Kendall, M., and Henderson, G.) | UTEP and University of Miami | Mar. & Apr. 2018 |
| Using Design Thinking to Create Engineering Educational Experiences (with Kendall, M. and Fernandez, A.) | UT-Rio Grande Valley & UT-San Antonio | Oct. 2017 |
| Design of Inclusive Learning Environments (with Hanna, R., Sarang-Sieminski, A., Waranyuwat, A.) | Olin College Summer Institute | June 2017 |
| Understanding Students (with Achurra, P.) | Olin College Summer Institute | June 2017 |
| Understanding Applicants (with Somerville, M.) | Olin College of Engineering | August 2016 |
| Student-Centered Approaches to Developing Advanced Technical Course (with Govindasamy, S.) | Olin College Summer Institute: Focus Workshops | June 2016 |
| Charting your Professional Career (with Spence Adams, S.) | Olin College Summer Institute: Focus Workshops | June 2016 |
| Understanding Students (with Somerville, M.) | Olin College Summer Institute | June 2016 |
| Using Project-Based Learning to Foster Intrinsic Motivation and Student Self-Direction (with Martello, R. and Hersey, S.) | Japan’s Ministry of Education, Culture, Sports, Science and Technology and the Enhancing Development of Global Entrepreneur Program | Feb. 2016 |
| Reflections on Current Program (with Chachra, D and Vaughan, M.) | University of Texas, El Paso | Oct. 2015 |
| Developing Our Students as Problem-Solvers (with Benson, L.) | Georgia Institute of Technology | Jan. 2015 |

**WORKS IN PROGRESS**

**FUNDED RESEARCH**

|  |  |
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| **Collaborative Conference: Research on Engineering Practice: Catalyzing a Scholarly Community.** *National Science Foundation.* (#EEC: 1832966), Lead PI: Brunhaver, S., Co-PIs: Coso Strong, A., Jesiek, B., and Korte, R. *June 2018 – May 2020.* Budget awarded to Coso Strong: $3,700. | June 2018 |
| **Collaborative HSI Conference: Co-designing an engineering education research agenda.** *National Science Foundation: Dear Colleagues Letter.* (#DUE-1764249) Lead PI: Kendall, M. Co-PIs: Coso Strong, A., and Basalo, I. *January – December 2018*. Budget awarded to Coso Strong: $11,340 | Jan. 2018 |
| **Collaborative Research: Supporting Agency among Early Career Engineering Education Faculty in Diverse Institutional Contexts.** *National Science Foundation: Research on the Formation of Engineers.* (#EEC-1664008) Lead PI: Coso Strong, A. Co-PIs: Bodnar, C., Faber, C., Smith-Orr, C., McCave, E., and Lee, W., *June* *2017-2020*. Budget awarded to Coso Strong: $111,538 | June 2017 |
| **Olin-UTEP Partnership for Change: Expanding the Preparation of 21st Century Engineers. *U.S.* *Department of Education.*** Lead PI: Gonzalez, R., Olin College PIs: Townsend, J. and Coso Strong, A. *August 2013 – August 2018.* (Took over as PI for Olin College in April 2017) | April 2017 |

**PROPOSALS SUBMITTED BUT NOT FUNDED**

N/A

**PATENT DISCLOSURES, APPLICATIONS, AND AWARDS**

N/A

**PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS**

|  |  |  |
| --- | --- | --- |
| Apprentice Faculty Grant, Educational Research & Methods Division | American Society for Engineering Education | 2015 |
| Committee on Graduate and Professional Student Development’s Award | Professional and Organizational Development (POD) Network | 2014 |
| Student Division Exceptional Service Award | American Society for Engineering Education | 2014 |
| Finalist, “Preparing Students for their Career Pathway” (with co-author, Scottie-Beth Fleming) | NSF Innovation in Graduate Education Challenge | 2013 |
| Engineering Innovation Fellow | National Science Foundation | 2012 |
| Graduate Research Fellow | National Science Foundation | 2010-2014 |
| Louis T. Radar Graduate Service Award | University of Virginia, Department of Systems and Information Engineering | 2010 |
| James Means Memorial Award for Excellence in Space Systems Engineering | Massachusetts Institute of Technology, Department of Aeronautics and Astronautics | 2007 |
| Senior Legacy Award for significant lasting contributions to the MIT Greek Community | Massachusetts Institute of Technology, Student Life | 2007 |
| Outstanding Associate Advisor of the Year Award | Massachusetts Institute of Technology, Academic Resource Center | 2005 |
| Lucent Global Science Scholar | Lucent Technologies | 2003 |

**OFFICES HELD IN PROFESSIONAL SOCIETIES**

|  |  |  |
| --- | --- | --- |
| Director | Educational Research & Methods (ERM) Division, American Society for Engineering Education | 2016-2018 |
| Immediate Past Chair, Chair, Program Chair, Membership Chair, and Co-Editor of Quarterly Newsletter | Student Division, American Society for Engineering Education | 2009-2014 |
| Leadership Team Member | Graduate Engineering Education Consortium for Students (GEECS) | 2010-2012 |
| 125th Year Committee\* | American Society for Engineering Education | 2016-2019 |
| National Projects Board\* | American Society for Engineering Education | 2014-2017 |
| National Outstanding Teaching Award Committee\* | American Society for Engineering Education | 2011-2014 |
| Member | American Society for Engineering Education | 2009-Present |
| Member | Professional and Organizational Development Network | 2014-Present |
| Member | American Institute of Aeronautics and Astronautics | 2013-2015 |

**\****Selected for Committee Service*

**OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE**

**Research and Project Advising**

|  |  |  |
| --- | --- | --- |
| Valerie Bracho | Florida International University, Undergraduate Researcher | 2019 |
| Anilegna Nunez | Florida International University, Undergraduate Researcher | 2019 |
| Ameen Khan | Florida International University, Undergraduate Researcher | 2019 |
| Mitch Cieminski | Olin College of Engineering, Undergraduate Researcher | 2016-2017 |
| Tom Heale | Olin College of Engineering, Undergraduate Researcher | 2016-2019 |
| Claire Kincaid | Olin College of Engineering, Undergraduate Researcher | 2016-2017 |
| Steven Meyer | Olin College of Engineering, Undergraduate Researcher | 2016-2019 |
| Elena Meyerson | Olin College of Engineering, Undergraduate Researcher | 2018-2019 |
| Tehya Stockman | Olin College of Engineering, Undergraduate Researcher | 2016-2019 |
| Caz Nichols | Olin College Arts, Humanities, and Social Sciences Capstone Advisee, Educational Game Design | Spring 2018 |
| Anne LoVerso | Olin College Arts, Humanities, and Social Sciences Capstone Advisee, Education History Museum Exhibit Design | Spring 2017 |

**Thesis Committee Membership**

|  |  |  |
| --- | --- | --- |
| Kayla Etienne | Florida International University, Mechanical and Materials Engineering, Master’s Thesis Committee | 2019 – 2020 |

**Teaching Activities**

*Florida International University*

 Co-Instructor EML 4551: Ethics and Project Organization SP2019

*Olin College of Engineering*

|  |  |  |
| --- | --- | --- |
| Co-Instructor | CIE 2017B: Quantitative Engineering Analysis II | F2017 |
| Faculty Advisor | Senior Design, SCOPE, Program | AYs: 2015-2018 |
| Co-Instructor & Developer | ENGR 3299: Educational Design Studio | SP2017 |
| Co-Instructor | ENGR 2250: User-Oriented Collaborative Design  | SP2016 & SP2017 |
| Pedagogy Advisor | Mobile Prototyping Student-Led Course | F2016 |
| Co-Instructor | MTH 1111/SCI 1111: Modeling and Simulation | F2016 |
| Co-Instructor | ENGR1200: Design Nature | F2015 |
| Faculty Lead | Co-curricular: Tinkerers, Superheroes, and Evil Geniuses: Exploring our understanding of practicing engineers | F2015 |

*Georgia Institute of Technology*

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| --- | --- | --- |
| Instructor | AE 1601: Introduction to Aerospace Engineering | SP2015 |
| Instructor | COE 2001: Statics | F2014 |
| Instructor | CETL 8715/8719: Mentored Teaching Practicum and Immersion | F2014 |
| Co-Instructor | CETL 8715/8719: Mentored Teaching Practicum and Immersion | SU2014 |
| Co-Instructor | AE 1350: Introduction to Aerospace Engineering | SP2014 |
| Problem-Based Learning Facilitator | AE 1350: Introduction to Aerospace Engineering | F2012 |

*University of Virginia*

|  |  |  |
| --- | --- | --- |
| Graduate Teaching Assistant | SYS 4581: Case Studies in Systems Engineering | SU2010 |
| Leadership Team Member | Technology Leaders Program | 2009-2010 |
| Teaching Apprentice | ENGR 1620: Introduction to Engineering | F2009 |

**Previous University & Related Service**

|  |  |  |
| --- | --- | --- |
| DBER Faculty Search Committee | Florida International University,STEM Transformation Institute | 2018-2019 |
| FIU Aero Club Faculty Advisor | Florida International University | 2019 - Present |
| Faculty Lead, Summer Institute: Designing Student-Centered Learning Experiences | Olin College of Engineering, Olin Collaboratory | 2018 |
| Faculty Co-Lead, Summer Institute: Designing Student-Centered Learning Experiences | Olin College of Engineering, Olin Collaboratory | 2017 |
| Olin Exposition Coordinator & Apprentice Coordinator  | Olin College of Engineering | 2015-2017 |
| How to Submit a Strong NSF GRFP Application | Olin College of Engineering, Post-Graduate Planning | Oct. 2015 & Sept. 2016 |
| Graduate School Experiences for Grad School 101 Co-Curricular, Presenter | Olin College of Engineering, Post-Graduate Planning | Sept. 2015 |
| Co-Founder & Vice-President of ASEE Student Chapter | Georgia Institute of Technology | 2011-2012 |
| Coordinator, Cognitive Engineering Center Graduate Student Orientation | Georgia Institute of Technology | 2011 |
| Coordinator of 1st multi-day Graduate Student Orientation | University of Virginia, Department of Systems & Information Engineering | 2009 |
| Recruitment Supervisor and Advisory Board Member | University of Virginia, Sigma Kappa Sorority, Theta Zeta | 2009-2010 |
| Undergraduate Advising and Academic Programming Student Advisory Board | Massachusetts Institute of Technology | 2004-2007 |
| Residence-Based Advising Associate Advisor & Seminar Leader | Massachusetts Institute of Technology | 2004-2006 |
| Vice-President of Membership & Sisterhood Chair | Massachusetts Institute of Technology, Sigma Kappa Sorority, Theta Lambda | 2005-2007 |

**Professional Service**

|  |  |  |
| --- | --- | --- |
| Miami-Dade Beacon Council Aviation Committee | Invited Workforce Development Panelist | 2019 |
| STEM Faculty Development Collaboratory’s *How many hats do you wear? Building Research Capacity for STEM Faculty Development Workshop* | Invited Participant | 2017 |
| ASEE ERM Best Paper Award Committee  | Member  | 2016 |
| ASEE ERM Apprentice Faculty Grant  | Reviewer | 2016-2019 |
| ASEE Annual Conference and Exposition | Session (Co-)Chair | 2011, 2016-2018 |
| Human Factors & Ergonomics Society | Session Moderator | 2013 |

**Advisory Board Member**

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| **Research: Workplace Socialization in Aerospace Engineering Profession.** *National Science Foundation.* (#EEC: 1826388) PIs: Benjamin Ahn & Lorenzo Baber. Iowa State University. *September 2018 – August 2021.*  | Sept 2018 |
| **Encouraging Civil Engineering Retention through Community and Self-Efficacy Building.** *National Science Foundation.* (#DUE- 1741611) PIs: Mary Watson & Kevin Bower. Citadel Military College of South Carolina. *May 2018 – April 2023.* | May 2018 |

**Reviewer**

**Journal**

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| --- | --- |
| Journal of Engineering Education | 2015, 2018-2019 |
| IEEE Transactions on Education | 2014-2016, 2018-2019 |
| Journal of Mechanical Design | 2019 |
| Research Quarterly for Exercise and Sport | 2019 |
| Entrepreneurship Education and Pedagogy | 2018 |
| Studies in Graduate and Postdoctoral Education | 2018 |
| International Journal of Doctoral Studies | 2017-2018 |
| Advances in Space Research | 2015 |
| Journal of Cognitive Engineering and Decision-Making | 2012-2015 |
| Advances in Engineering Education | 2014 |

**Conference**

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| ASEE Annual Conference and Exposition | 2010-2019 |
| IEEE/ERM Frontiers in Education Conference | 2012, 2016, 2018 |

**NSF Review Panel** 2018, 2016