

TEACHING

Visiting Assistant Professor in Picker Engineering Program, Smith College

2019-present

Courses Taught

- EGR270 Engineering Mechanics & Lab
- EGR374 Fluid Mechanics & Lab
- EGR390 Dynamics

Assistant Professor of Mechanical Engineering, Lafayette College

2017-2019

Courses Taught

- ES101 Introduction to Engineering
- ES226 Statics
- ME388 Sustainable Materials
- ME497/8 Capstone Design

Teaching Award

John T. McCartney Award for Excellence in Diversity Education

2018

Teaching Certification and Coursework

Certification: CIRTL Associate (Center for Integration of Research, Teaching, and Learning)

Select Courses: Diversity in the College Classroom: Teaching the STEM Undergraduate; Disabling Difference in the STEM Classroom: The Disability & University Course Design You Need to Know for Inclusion

EDUCATION

Ph.D., University of Massachusetts, Amherst

2017

Dissertation: *Bio-Based Composite Materials for Large Wind Turbine Blades*

Fellowship: Offshore Wind Energy NSF IGERT (Interdisciplinary Graduate Research and Education Traineeship)

Guest Ph.D. Student, Technical University of Denmark (2016)

Project: *Multiaxial Behavior and Manufacturing Effects of Flax-Fiber Reinforced Composites*

B.S., University of Vermont

2012

Major: *Mechanical Engineering*; Minor: *Pure Mathematics*

SCHOLARSHIP

Peer-Reviewed Publications (* Indicates undergraduate student first author.)

(5) Koh, R. (2020) From Charity to Solidarity: A Model for Shifting Service Learning in Engineering. *Journal of Higher Education Theory and Practice*, 20(11).

(4) *Addis, C. C., Koh, R. S., & Gordon, M. B. (2020). Preparation and Characterization of a Bio-based Polymeric Wood Adhesive Derived from Linseed Oil. *International Journal of Adhesion and Adhesives*.

(3) Koh, R., & Madsen, B. (2018). Strength failure criteria analysis for a flax fibre reinforced composite. *Mechanics of Materials*, 124, 26-32.

(2) Koh, R. S., & Clouston, P. (2017). In-plane shear properties of laminated wood from tension and compression tests of angle-ply laminates. *Journal of Materials in Civil Engineering*, 29(11).

(1) **Koh, R. S., & Dunlop, M. J.** (2012). Modeling suggests that gene circuit architecture controls phenotypic variability in a bacterial persistence network. *BMC Systems Biology*, 6(1), 47.

Select Conferences and Proceedings

(6) American Society for Engineering Education, June 2020. *Engagement in Practice: A Community Engaged Capstone Design Experience*. (Presentation and Proceedings)

(5) Ethics in STEM Workshop, North Carolina State University, March 2018. *Teaching Engineering Design and Ethics through Assistive Technology*. (Poster Presentation)

(4) World Conference on Timber Engineering. Vienna, Austria. August 2016. *Yield Criteria Assessment for Angle-Ply Wood Laminates in Wind Turbine Blades*. (Proceedings)

(3) International Conference on Experimental Mechanics. Rhodes, Greece. July 2016. *Yield Criteria Assessment for Angle-Ply Wood Laminates in Wind Turbine Blades*. (Presentation and Proceedings)

(2) World Conference on Timber Engineering. Quebec City, Quebec, Canada. August 2014. *Wood Laminates for Utility Scale Wind Turbine Blades: Evaluation of the Shear Strength of an Angle-Ply Wood Laminate*. (Presentation and Proceedings)

(1) International Conference on Mechanics of Composites. Long Island, New York, USA. June 2014. *Wood Laminates for Megawatt-Scale Wind Turbine Blades*. (Presentation and Proceedings)

Select Invited Lectures

(5) Wichita State University Guest Lecture. October 21st, 2020. *Bio-based Wind Turbine Blades: Sustainable Materials Meet Renewable Energy for Clean, Green Power*

(4) Mount Holyoke College Physics Seminar Series. January 28th, 2020. *Why Are Wind Turbines So Big?*

(3) Technical University of Denmark Composites Seminar. June 15th, 2016. *Natural Fibre Composites for Wind Turbine Blades*.

(2) Massachusetts Wind Working Group. September 30th, 2015. *Bio-Based Materials for Large Wind Turbine Blades*.

(1) ASM Boston Chapter Meeting. March 26th, 2015. *Bio-Based Materials for Large Wind Turbine Blades*.

LEADERSHIP and SERVICE

Inclusion, Diversity and Equity Committee, Member 2019 – present
Volunteer service for the Picker Engineering Program at Smith College.

Volunteer Teacher at MacDougall-Walker Correctional Institution 2019 – present
Offering college-accredited coursework in engineering through Second Chance Educational Alliance, including guest lecturing (2019) and full courses (*currently on hold due to COVID-19*).

Interdisciplinary Themes Task Force, Member 2017 – 2018
This task force examined interdisciplinary opportunities for Lafayette's Engineering Division.

Peer Reviewer 2016 – present
Regular reviewer for several journals, including Polymer Composites, BioResources, American Society for Engineering Education, AIMS Materials Science, Journal of Materials Science.

Executive Co-Chair, Graduate Women in STEM at UMass 2015 – 2017
Elected for two terms by the general membership of over 400 graduate students. Co-authored and won a \$6,000 grant to start the GWIS Ambassadors sexual assault response and prevention program.

Next Step Social Justice Facilitator Training, Trainee and Retreat Facilitator 2011 & 2012
Selected twice from a competitive application process to undergo the Social Justice Educator training at the University of Vermont.