

CALL FOR PAPERS
CLIVE L. DYM MUDD DESIGN WORKSHOP XIII:
COLLABORATIONS IN STUDENT DESIGN EXPERIENCES:
CROSS-DISCIPLINARY, CROSS-INSTITUTIONAL, COMMUNITY, AND INDUSTRY
PARTNERSHIPS
HARVEY MUDD COLLEGE, 8-10 June 2023

THE VISION

Gather between fifty and seventy-five engineers, designers, and educators to discuss and share approaches for building bridges, creating connections, and removing obstacles to cross-disciplinary, inter-institutional, community and industry partnerships in design education. We approach this goal believing that the best partnerships share perspectives, domain knowledge, values, and skill sets that compliment those of their other members in service to their mission. Within engineering design education, the opportunity to expose students to perspectives and paradigms that differ or conflict with their training is sometimes limited and often resisted. Cultivating methods to productively engage students beyond classrooms, departments, and universities that increase perspective heterodoxy and improve design approaches significantly broadens the student design experience beyond what may be a narrowly focused detailed design exercise. Helping students manage a broad set of perspectives and approaches is an important aspect of these partnerships.

THE MISSION

We will identify the best practices, opportunities, and challenges broadly associated with cooperative partnerships and expanding design perspectives. We will discuss ways that educators, students, courses, and curricula can be positioned and developed to serve partners in engineering design education. Among other related topics, we will consider:

- Developing community partnerships
- Identifying industrial partners
- Managing partner expectations
- Engaging non-engineering disciplines
- Engaging multiple engineering disciplines or specializations
- Collaborating across institutions
- Identifying facilities and sharing these facilities
- Testing, validation, and implementation
- Team formation, diversity, and management
- Utilizing alternative design process perspectives
- Defining participant goals and outcomes
- Balancing learning and outcomes
- Evaluating sponsored projects
- Considering culture and action
- Sustaining partnerships
- Overcoming structural barriers

in the context of engineering design activities such as:

- Needs assessment
- Problem definition
- Idea generation
- Prototyping and modeling
- Planning and managing a design process
- Perspective taking
- User/stakeholder interactions including co-design
- Conflicting priorities
- Using software tools such as CAD and FEA
- Assessing and managing risk and uncertainty
- Making decisions
- Testing and troubleshooting performance
- Iteration
- Reflective practice
- Understanding and addressing project context
- Ethical and socially responsive design

THE EXPERIENCE

Workshop sessions are initiated by brief summary or position statements from panelists followed by an open discussion. A wrap-up session will collect the most important outputs for improving engineering design education for dissemination to the community. Participants will receive a preliminary proceedings containing near-final manuscripts of presented papers.

Participants are invited to further refine their Dym work and submit to peer review for publication in a Special Issue of the International Journal of Engineering Education containing the resulting proceedings of the Clive L. Dym Mudd Design Workshop XIII. In this case, authors will be requested to distinguish their workshop submission as scholarly research, position papers, or provocative observations so that they may be appropriately included in the IJEE Special Issue or elsewhere as appropriate.

CALENDAR	TWO-PAGE ABSTRACTS TO BE SUBMITTED BY	1 JANUARY 2023
	AUTHORS NOTIFIED OF ACCEPTANCE BY	1 FEBRUARY 2023
	RESENTING AUTHOR REGISTRATION DEADLINE	1 MARCH 2023
	FINAL PAPERS TO BE SUBMITTED BY	1 APRIL 2023

ABSTRACTS should be submitted **electronically** to: <https://cmt3.research.microsoft.com/MDW2023/> Please note that new users will need to create an account on CMT.

ORGANIZING COMMITTEE R. Adams, Purdue University; A. Altman, United States Air Force Research Laboratory; R. Bailey, University of Virginia; S. Bedi, University of Waterloo; S. Bhattacharya, Boston College; S. Daly, University of Michigan; G. Fine, Boston University; A. Ibrahim, Yorkville University; M. Kokkolaras, McGill University; G. G. Krauss (committee chair), Harvey Mudd College; M. Lande, South Dakota Mines; A. Mabogunje, Stanford University; K. H. Sienko, University of Michigan; M. Siniawski, Loyola Marymount University; J. P. Terpenney, George Mason University; J. Turns, University of Washington; M. Wettergreen, Rice University; V. Wilczynski, Yale University; and M. C. Yang, Massachusetts Institute of Technology.

Coronavirus Statement: The organizing committee is hopeful that the workshop will take place at the scheduled time and location yet remain aware of the continuing global health crisis. In anticipation of restrictions on an in-person workshop, the committee will consider the other options available and will keep participants informed of decisions regarding format, timing, and location.