

CALL FOR PAPERS — CLIVE L. DYM MUDD DESIGN WORKSHOP XI: DESIGN EDUCATION & PRACTICE “HOW PROCESS MATTERS” HARVEY MUDD COLLEGE, 30 MAY -1 JUNE 2019

VISION Engineers, designers, and educators will gather to discuss the importance of process to the engineering design enterprise. Participants will reflect on the meaning of process in design, discuss stages and aspects of design processes, and compare approaches to teaching, learning, and practicing engineering design. In design education contexts, key learning goals and deliverables vary by course and experience; the focus may be on mastering particular design skills, building a high quality product, or gaining exposure to some or all of a design process. With variation in emphasis, important questions arise: How might the alternatives of formative or summative perspectives on design education be in real conflict or supportive of larger learning goals? What is the role of process in the context of engineering design education? And how does a process-led pedagogy differ from actual practice?

MISSION To identify, articulate, and address the importance of process in engineering design and design education and to improve the methods by which process is taught, learned, and applied in the context of engineering design process activities.

In alignment with the workshop theme, the workshop organizers expect papers to focus on topics such as the following:

- › Role of steps within the design process for learning
- › Reflection in the design process
- › User-oriented and human-centered design approaches
- › Engaging other disciplines in engineering design
- › Mathematical and computational modeling approaches to engineering design education
- › Innovative cornerstone and capstone course projects emphasizing process in design
- › Ethical decisions and behavior in the design process
- › Communication for learning and dissemination
- › Creativity and ideation in the design process
- › Cases of curricular innovation through process
- › Building/concept realization/prototyping/making as learning
- › Student and user outcomes
- › Overcoming cultural or organizational barriers through design process
- › Models of design process and learning
- › Testing, validation, and improvement
- › Designing sustainably and DFES
- › Ethnography and needs identification

EXPERIENCE Podium sessions are initiated by brief position paper summaries from panelists followed by extended open discussion. Poster sessions will include multiple perspectives and will be included in the wrap-up session. The 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. Those drafts will subsequently be refined and reviewed for publication in a Special Issue of the International Journal of Engineering Education to comprise the archival proceedings of the Clive L. Dym Mudd Design Workshop XI.

CALENDAR Two-page abstracts to be submitted by
Authors notified of acceptance by
Presenting author registration deadline
Final papers to be submitted by

31 January 2019
28 February 2019
31 March 2019
15 April 2019

ABSTRACTS should be submitted **electronically** to:
https://hmc.formstack.com/forms/clive_l_dym_mudd_design_workshop_xi_abstracts

and may be emailed to: Sydney_Torrey@hmc.edu
and to: Gordon_Krauss@hmc.edu

ORGANIZING COMMITTEE A. M. Agogino, University of California, Berkeley; A. Altman, University of Dayton; C. J. Atman, University of Washington; R. Bailey, University of Virginia; S. Daly, University of Michigan; G. Fine, Boston University; A. Ibrahim, Yorkville University; G. G. Krauss (committee chair), Harvey Mudd College; M. Lande, Arizona State University; C. L. Magee, Massachusetts Institute of Technology; S. D. Sheppard, Stanford University; K. M. Sienko, University of Michigan; M. Siniawski, Loyola Marymount University; J. P. Terpenney, Pennsylvania State University; and M. C. Yang, Massachusetts Institute of Technology.