Contents

Special Issue Clive L. Dym Mudd Design Workshop XIII Collaborations in Student Design Experiences

Guest Editor

Gordon G. Krauss - Harvey Mudd College, Claremont, CA, USA

Editorial Ahmad Ibrahim	1275
Guest Editorial Gordon G. Krauss	1276–1277
Key Ideas from Clive L. Dym Mudd Design Workshop XIII – Collaborations in Student Design Experiences Gordon G. Krauss	1278–1281
Interconnected and Distributed Professional Growth and Development: Exploring the Potential for Faculty Development via Design for Impact, an Intercollegiate, Interdisciplinary Human-centered Design Program David Gray, Julia Devoy, Kathryn Wozniak, Tsailu Liu and Daniel Harding	1282–1294
Unlocking the Secrets of Intuition Use: Evaluating Solutions and Predicting Outcomes During Engineering Problem Solving Kaela M. Martin, Elif E. Miskioğlu, Natalie C. Dow, Zihui Zhu, Sanjeev M. Kavale, Ryan B. Lee and Adam R. Carberry	1295–1312
Use of Different Prototype Modalities for Design Communication in Industry-Sponsored, Interdisciplinary Capstone Design Teams during COVID-19 Pablo Luna Falcon, Hannah Budinoff, Julia Kramer and Jannatul Bushra	1313–1322
A Collaborative Inquiry into Tensions between Empathy and Engineering Design Corey Schimpf, Nicholas D. Fila, Justin Hess, Allison Godwin, Elizabeth Sanders, Kirsten H. Dodson, Molly H. Goldstein and Rob Sleezer	1323–1338
Collaboration, Professional Preparation, and Personal Growth: Alum Validation of Capstone Design Outcomes Susannah Howe	1339–1349
The Students Are Doing The Best They Can: Reframing Why Inequitable Community Engagement Happens in Engineering Design Higher Education Kaylla Cantilina and Robert P. Loweth	1350–1369
Assistive Technology and Human-Centered Engineering Design: Partnership between a School that Serves Students with Extensive Support Needs and a Human-Centered Engineering Program Avneet Hira, Jennifer Gemski and Justin Henriques	1370–1377
What do Practicing Engineers say about Stakeholder Exploration? Expanding Understanding of Divergent Exploration in Design Laura R. Murphy, Thanina Makhlouf, Shanna R. Daly and Colleen M. Seifert	1378–1389
Assessing Teamwork Learning: A Heuristics Authoring Approach Joshua D. Summers, Apurva Patel and Marissa L. Shuffler-Porter	1390–1401
Practitioner Case Studies Demonstrating the Incorporation of Contextual Factors during Global Health Design Grace Burleson, Kentaro Toyama and Kathleen H. Sienko	1402–1415
Exploring Engineering Student Perspectives on Positionality in Design for 'Social Good' Collaborations Nick D. Moses, Shanna R. Daly, Jacqueline Handley and Kathleen H. Sienko	1416–1429
Partnerships Within Community-Engaged Design Haley Cutler, Jorge Martinez, William C. Oakes, Andrew Pierce and Robin Terwilliger	1430–1442
The Veiled Problem of "Problem Solution": Problem Definition as Necessary but not Sufficient Marie Stettler Kleine, Dean Nieusma, Chelsea Salinas and Aubrey Wigner	1443–1456
Society Centered Learning: Approaching Society as a Complex System with Diverse Stakeholders Elizabeth M. Gerber and Amy O'Keefe	1457–1466

Enhancing the Value Co-Creation in Student Team Project among the School of Design and the Department of Mechanical Engineering through Interdisciplinary Pedagogical Approach Luqian Wang and Yi-Teng Shih	1467–1478
Teaching Engineering Design With People, Problems, and Prototypes Desen S. Özkan and Nicole Batrouny	1479–1498
Learning Through Product-Based Learning with Emphasis of People, Process, and Product Across Multi-Disciplinary Courses Micah Lande	1499–1506
Educating the Whole Engineer at Wake Forest Engineering: Using Cognitive Apprenticeship as an Effective Pedagogical Approach to Cultivate Design Learning, Team Effectiveness, Entrepreneurial Mindset and Character in Capstone Design Olga Pierrakos, Jesse Pappas, William Crowe, Ty Holcomb and Kyle Luthy	1507–1530
Assessing Divergence and Convergence in the Design Process: Results from Two Experiments Arlindo Silva, Tamas Makany and Matt Chiu	1531–1538
Strengthening the Link between Latine Communities and Engineering: Multicompetent Learners' Expansive Design Perspectives Greses Pérez and Sheri Sheppard	1539–1551
Collaborative Project-Based Service Learning: What Motivates Students to Participate and What Do They Value After? Deniz Dogruer, Vivek Rao and Alice Merner Agogino	1552–1567
Guide for Authors	1568