TEACHING-LEARNING-RESEARCH: DESIGN AND ENVIRONMENTS

• Paper / Proposal Title:
Merging teaching & research in Foundation courses for a new interdisciplinary design education program

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• Abstract (300 words):
The paper presents how the authors achieve synergy between research and teaching in design, through teaching-based research and research-based teaching, developed together within various courses of the foundation program of the recently established Dubai Institute of Design and Innovation, a new specialized design university established in Dubai in 2018, in collaboration with MIT and Parsons The New School of Design. The paper describes the curriculum development of a first year workshop and studio, as an integrated systems of guided explorations on technical skills and their application to articulate the projects. The analysis considers specific modules within these courses, which are aligned with the authors’ research topics around design inspired by nature and design for sustainability. We discuss the different structures and goals of the courses, how they support each other, how we embed our research into the courses, and also progress our research through reflection and elaboration on the student’s projects and results. On the one hand the paper examines a studio project that uses design fiction and analysis on recent technological innovations as a mode of research to arrive at concepts of a “Symbiotic Creature”. On the other hand, it analyses a workshop project focusing on the explorations around the ideation and fabrication of biomaterials and the methodologies to evaluate the results. The paper offers ideas for design educators, and
discusses the challenges and achievements when implementing this type of education, as well as some reflections on our personal views around teaching and research.

• Author(s) Biography (200 words each):

Mag.Arch. Mirko Daneluzzo is a designer, currently founding Lecturer at the Dubai Institute of Design and Innovation DIDI. He previously taught Computational design and Design Laboratory at the Academy of Applied Arts LABA - industrial design department, in Rimini, Italy (2010-2018). He studied architecture at the University of Architecture IUAV in Venice, Italy and he received his Master degree in architecture from the University of Applied Arts, in Vienna, Austria. His research is about the impact of computationalism and radical ecological thought, in the redefinition of material systems and production processes. He is Co-Founder and Head of Design of Nyxo Visionary Design, an architecture and product design practice characterized by a heterogeneous production for companies with an international reputation. The projects developed in the professional experience, range from experimental Limited Editions to serial productions, with a focus on the application of additive manufacturing technologies for End-Use productions at different scales. His work has been exhibited internationally in several international events including the Architecture Biennale in Venice 2010, Beijing 2010, and Tallin 2017, different Design Weeks, including Tokyo, Dubai, Shanghai and Singapore.

Dr. Carlos Alberto Montana-Hoyos is an award-winning designer and academic, currently the founding Associate Professor and Acting Assistant Dean in the Dubai Institute of Design and Education DIDI. He was Associate Professor and Course Convenor of Industrial Design (ID) in the University of Canberra, Australia (2010-18), where he won 2 institutional and 1 national teaching awards, and Assistant Professor in ID, National University of Singapore (2006-10). His current interdisciplinary design research focuses on Design for Health, Biomimicry and Sustainability. Since 2010 he has obtained and managed numerous research grants and projects, including direction for the curriculum design of the 1st female-only ID program in Saudi Arabia. Dr. Montana-Hoyos is a Colombian/Australian who has lived in Italy, Japan, Singapore and Australia. He graduated as an ID from Javeriana University (PUJ). In 2003 he was awarded a scholarship from the Japanese Government, graduating Cum Laude from a MAID and a PhD from Kobe Design University in Japan. As a practitioner, Carlos worked in-house in design of packages, electric appliances, furniture, lamps, and ceramics, and others. Many of his projects as well as projects by his students have received international design awards, including Braun Prize, Dupont Imagineering and RedDot, among others.