

COMPUTING FUTURES IN ENGINEERING DESIGN  
Proceedings of a Workshop  
Clive L. Dym, Editor

# DESIGN

Center for Design Education  
Harvey Mudd College  
Claremont, California, USA



## Foreword

The papers in this volume represent the proceedings of the symposium, “Computing Futures in Engineering Design,” that was held on the campus of Harvey Mudd College in Claremont, California, on 2–3 May 1997. The symposium focused on *future* roles of computing in *doing* design and engineering and in the *teaching of* design and engineering. It was intended to provide useful insight, advice, and information to educators about how we might think about the future of design and of design (and related) centers in engineering education. In particular, it was intended to help those of us at Harvey Mudd College think about directions and activities for our own Center for Design Education (CDE).

The symposium was organized as a *workshop*, with the sessions constructed to give *everyone* a chance to participate, to be heard as well as to listen. Each workshop session, scheduled for two hours, began with brief presentations by four panelists in each session. (The balance of each session consisted of moderated, open discussion.) The panelists were asked to reflect on ideas and attitudes about what we ought to be doing in the future, instead of focusing on current research. Their position papers appear below, organized by session.

There were three keynote talks: At the opening lunch on Friday, I presented a personal view of design teaching and research within the HMC context. Nick Mansur and Cindy Shulstad gave a very interesting “mouse’s view” of the demands on software engineers in the design and operation of Disneyland at the Friday night banquet. Unfortunately, Nick and Cindy could not reduce the presentation to a useful written form. Saturday’s closing luncheon featured Steve Fenves of Carnegie Mellon University as rapporteur who reported on and synthesized all that we heard at the workshop. Steve’s cohesive summary of the principal threads of discussion appears below.

As the principal organizer of this workshop, I would like to acknowledge support from several people. First, thanks to Harvey Mudd College and many of my colleagues, including: Rich Phillips, Chair of the Engineering Department; Erik Spjut and Zee Duron, Associate Directors of the CDE; Sheldon Wettack, Dean of Faculty; Jon Strauss, President; Hank Riggs, immediate past-President; Sally Rich Arroyo of College Relations, *designer extraordinaire*; Holly Preble, Director of Corporate Relations; Patrick Deegan for creating the workshop’s web presence; and Radmila Milosavljevic-Corin, Roger Humes, and Sarah Jacobson for ably attending to many administrative details. I’d also like to thank Miriam Dym for designing the CDE’s logo, and Don Calhoun of Hughes Electronics, who was instrumental in getting support from Hughes that, together with HMC’s support, helped make this workshop possible.

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