

PREFACE

The Seventh Solid Freeform Fabrication (SFF) Symposium, held at The University of Texas in Austin on August 12-14, 1996, was attended by over 200 national and international researchers. Papers addressed SFF issues in computer software, machine design, materials synthesis and processing, and integrated manufacturing. The continued growth in the research, application and development of SFF approaches was readily apparent from the increased participation over previous years and the diverse domestic and foreign attendees from industrial users, SFF machine manufacturers, universities, and government. The excitement generated at the Symposium reflects the participants' total involvement in SFF and the future technical health of this growing technology. The Symposium organizers look forward to its being a continuing forum for technical exchange among the expanding body of researchers involved in SFF.

The Symposium was again organized in a manner to allow the multi-disciplinary nature of the SFF research to be presented coherently, with various sessions emphasizing computer issues, machine topics, and the variety of materials aspects of SFF. The demand for a forum at the SFF Symposium posed a conflict with the desire to maintain the meeting at three days. The compromise was to move to afternoon parallel sessions for the first time and to extend the meeting to three full days. The poster session was also expanded. We believe that documenting the constantly changing state of SFF art as represented by these Proceedings will serve both the people presently involved in this fruitful technical area as well as the large flux of new researchers and users entering the field.

The Japanese Technology Evaluation Center and its companion World Technology Evaluation Center at Loyola College, under a cooperative agreement with the National Science Foundation, assessed the state of SFF in Europe and Japan. Dr. Fritz Prinz of Stanford University chaired the study and a review of this assessment at the Symposium. The panel participants were Clint L. Atwood (Sandia National Labs), Richard Aubin (United Technologies Research Center), Joe Beaman (University of Texas), Robert L. Brown (The Gillette Company), Paul Fussell (Alcoa Technical Center), Allan Lightman (University of Dayton Research Institute), Emanuel Sachs (Massachusetts Institute of Technology), and Lee Weiss (Carnegie Mellon University). Slides of the original presentation and JTEC report ordering information is available on the worldwide web at <http://itri.loyola.edu/rp/top.htm>.

The editors would like to extend a warm "Thank You" to Glorja Gutches for her detailed handling of the logistics of the meeting and the Proceedings, as well as her excellent performance as registrar and problem solver during the meeting. We also acknowledge the support efforts of Cindy Pflughoft throughout. We would like to thank the organizing committee, the session chairmen, the attendees for their enthusiastic contributions, and the speakers both for their significant contribution to the meeting and for the relatively prompt delivery of the manuscripts comprising this volume. We look forward to the continued close cooperation of the SFF community in organizing the Symposium. We also want to thank ONR through Grant No. N00014-96-1-0441, ARPA, and The Minerals, Metals and Materials Society and the University of Connecticut at Storrs for co-sponsoring the Symposium with the Mechanical Engineering Department and the Center for Materials Science and Engineering at the University of Texas at Austin.

The editors.