PREFACE

This Proceedings of the Fourth Solid Freeform Fabrication Symposium, held at The University of Texas in Austin on August 9-11, 1993, reaffirms the dynamic nature of the research area. The interest shown by researchers over the wide range of disciplines and sub-disciplines that make up Solid Freeform Fabrication (SFF) highlights this technical Symposium. The speakers addressed problems in computer software, in machine design, materials synthesis and processing, and SFF in integrated manufacturing. The exponential growth in the research, application and development of SFF approaches was readily apparent from the attendees from industrial users, SFF machine manufacturers, universities, and government. This Symposium is the first where real progress toward structurally sound samples and parts was demonstrated as SFF moves from "feelie" to "non-structural" to "structural" real parts over a range of materials. This advancement in the state-of-the-art of SFF will continue to drive the exponential growth of the area. The excitement amongst the Symposium participants will continue to serve as the catalyst for the continued growth and the availability of Solid Freeform Fabrication. The Symposium organizers look forward to its being a continued source of technical exchange among the growing body of researchers involved in SFF.

The Symposium was organized in a manner to allow the multi-disciplinary nature of the SFF research to be presented coherently, with various sessions emphasizing computer aspects, machine topics, and the variety of materials aspects of SFF. Application-related efforts were scattered throughout the Symposium. To avoid parallel sessions a poster session was organized, and the panel session on SFF was held in the evening, after a visit with Texas barbecue. The dynamic panel discussion on Future Directions in SFF was led by Marshall Burns, Michael J. Cima, Tom Latham, Greg Sanders and Joel W. Barlow. The written versions of the presented papers are incorporated into these Proceedings. The editors would like to thank the speakers for their timely delivery of the manuscripts that expedited the publication of these Proceedings. The constantly changing state of the SFF art as represented by these Proceedings will serve both the people presently involved in this fruitful area as well as new researchers and users coming into Solid Freeform Fabrication.

The editors would also like to extend a warm thank you to Renee Loyless-May for her extensive efforts in the detailed handling of the logistics of the meeting and the Proceedings. We would also like to thank the organizing committee, the speakers, the session chairmen, panel members, and the attendees for their enthusiastic contributions. 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. N00014-93-1-0371, ARPA, and The Minerals, Metals and Materials Society for co-sponsoring the Symposium as well as DTM Corporation for hosting the reception.

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