PREFACE

The Twenty-Seventh Annual International Solid Freeform Fabrication (SFF) Symposium – An Additive Manufacturing Conference, held at The University of Texas in Austin on August 8-10, 2016, was attended by 544 researchers from 19 countries. The number of oral and poster presentations increased to 424 this year. The meeting was held on the campus of The University of Texas at Austin in the AT&T Executive Education and Conference Center. The meeting consisted of a Monday morning plenary, 40 parallel technical sessions and a poster session.

The conference attendance is growing rapidly, clearly reflective of the interest at large in the area. The plot shows the conference attendance over its 27 year history.

The recipient of the International Outstanding Young Researcher in Freeform and Additive Manufacturing Award was **Dr. Li Yang** from The University of Louisville. **Dr. Brent Stucker** from 3DSIM, LLC won the International Freeform and Additive Manufacturing Excellence (FAME) Award.



There are 197 papers in this conference proceedings volume. Papers marked "REVIEWED" on the first page heading were peer reviewed by two external reviewers. The proceedings papers are accessible in pdf format by browsing and selecting from the Table of Contents or Index or by searching for an authors' name or keyword. Papers have been placed in topical order and numbered sequentially to facilitate citation. Manuscripts for this and all preceding SFF Symposia are available for free download at the conference website: http://sffsymposium.engr.utexas.edu/archive.

The editors would like to thank the Organizing Committee, the session chairs, the attendees for their enthusiastic participation, 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 additive manufacturing community in organizing the Symposium. We also want to thank the Office of Naval Research (N00014-16-1-3004) and the National Science Foundation (CMMI-1639406) for supporting this meeting financially. The meeting was co-organized by The University of Connecticut at Storrs, and the Mechanical Engineering Department/Lab for Freeform Fabrication under the aegis of the Advanced Manufacturing and Design Center at The University of Texas at Austin.

David L. Bourell, Richard H. Crawford, Carolyn C. Seepersad, Joseph J. Beaman, Scott Fish, and Harris Marcus