

# FOREWORD

The Electronics industry is one of the most fascinating, dynamic, and important industries. It has literally transformed the world and provides many products that affect our daily lives. For example, telephones, televisions, high definition televisions, electronic organizers, Personal Computers (PC), notebook PC, subnotebook PC, laptop PC, palmtop PC, PC with built-in portable phones, workstations, midrange, mainframe, and super computers, PCMCIA (Personal Computer Memory Card International Association) PC cards, cellular phones, wireless phones, pagers, portable electronics products, video camcorders, audiovisual products, multimedia products, etc. The major trend in the electronics industry today is to make products more personal by making them lighter, smaller, thinner, shorter, and faster, while at the same time making them more friendly, functional, powerful, reliable, and less expensive. As the trend toward miniature and compact products continues, the introduction of more user friendly, wider variety of functions, and reliable products will provide growth in the market. One of the key technologies that is helping to make these products possible is electronics packaging and assembly technology, which was the focus of the 6th Symposium on Mechanics of Surface Mount Assemblies.

The *6th Symposium on Mechanics of Surface Mount Assemblies* was sponsored by the Electrical and Electronic Packaging (EEP) Division of American Society of Mechanical Engineers (ASME), and was held at the ASME International Congress & Exposition, (the Winter Annual Meeting of ASME), Hyatt Regency, Chicago, Illinois, November 6–11, 1994. There were 5 technical sessions at the Symposium and 24 papers were presented. Scientists and engineers converged together to share their problems, findings, and solutions in applying the principles of mechanics to electronic packaging and assembly. This special volume of the Transactions contains 15 peer-reviewed papers

selected from the 6th Symposium on Mechanics of Surface Mount Assemblies. The papers represent a cross section of the topics of the symposium and reflect the state of the art in mechanical and thermal design, modeling, analysis, and testing of electronic packaging and assembly systems.

The multiplicity of disciplines involved in designing, analyzing, testing, and solving the problems associated with mechanical and thermal characterization of electronic packaging and interconnection is evident in the papers presented in the volume. The EEP Division, and more generally ASME, provide a common meeting ground for mutual education and enlightenment. It is hoped that the present collection of papers will stimulate the reader to the challenges and opportunities presented by mechanical and thermal phenomena in electronic packaging. We thank the attendees, reviewers, speakers, and especially the authors for their help, contributions, and cooperation in preparing this issue. It is through their efforts that our **Journal of Electronic Packaging** remains a dynamic and interesting organ. Please join us this year at the ASME International Mechanical Engineering Congress, San Francisco Hilton, California. November 12–17, 1995. More than 76 papers in applying the principles of mechanics to electronic packaging systems will be presented.

**D. Barker**  
**S. Burchett**  
**H. Conrad**  
**A. Dasgupta**  
**P. Engel**  
**J. Lau**  
**Y. Pao**  
**A. Rafanelli**  
**R. Ross, Jr.**