## **FOREWORD**

It gives me great pleasure to present one of the first of two books in the *Series in Perspectives in Emerging Technologies*. The series was started to promote dissemination of the latest technological developments by leading researchers in fields related to thermal and fluids aspects of the engineering and biological sciences. It is expected to cover broader topics as further interest in the series develops.

Air cooling of electronics components is an extremely important technique, forming the backbone of the electronics cooling industry, an area facing increasing demands with regard to higher dissipation rates, higher effective heat-transfer coefficients, compact size, lower noise, and higher efficiencies. Extending air cooling limits is very attractive in terms of avoiding the significant cost increases associated with the liquid cooling option.

Dr. Mark Steinke has been the main driver in developments in air cooling systems at IBM for the last six years. He brings extensive breadth and depth through this experience in furthering the art and science of air cooling. This book is intended as an indispensable and comprehensive resource for designers and researchers in the field of air cooling of electronics components.

The vision and foresight of our great friend William Begell in founding Begell House Publications to promote research in the fields of engineering and medicine have been the main driving force behind this effort. The impetus provided by him is further amplified by Yelena Shafeyeva, president of Begell House. Her encouragement and support in founding this series is gratefully acknowledged. I am also thankful to Vice President and Production Manager Vicky Lipowski, who has been extremely patient and supportive in the entire process leading to publication of this book. The support and tireless efforts by all Begell House staff is also gratefully acknowledged.

Satish Kandlikar
Chief and Founding Editor
Series in Perspectives in Emerging Technologies
Begell House, Inc.
Gleason Professor of Mechanical Engineering
Rochester Institute of Technology,
Rochester, NY