

Preface

China has become the manufacturing center of the world in recent years. Utilization of digital designing and modern technologies in the manufacturing are the main ways for improve productivity and reduce the costs of product development to achieve the best objectives in area of manufacturing. Digital design and manufacturing has been considered, over the last decade, as a highly promising set of technologies for reducing product development times as well as for addressing the need for customization, increased product quality, and faster response to the market. To solve some complex manufacturing problems and perform larger-scale effective manufacturing, the impediments to practical application and development of digital designing and manufacture technology were discussed in this book such as applied materials, applied and computational mechanics, researching and designing in mechanical engineering, mechatronics, control and automation and so on. It has become the most important techniques to enhance their competitiveness to win advantage in the market. At the same time, it has a huge potential for development and improvement.

This volume contains selected papers from 2014 Global Conference on Digital Design and Manufacturing Technology (2014 DDMTC) which was held during November 27-29, 2014, in Hanzhong Shaanxi Prov P.R.China. 2014 DDMTC is the 4th global conference was organized by China Graphics Society, and sponsored by Zhejiang University of Technology and Shaanxi University of Technology. The pasted DDMTC were held successfully in Hangzhou (2010), Yangzhou (2011) and Ningbo (2012) which provided excellent platforms for participants to exchange new knowledge about digital design and manufacturing technology, it brought forth new opportunities and collaborations.

This volume presents a selection of 37 papers from over 70 submitted papers from universities and industries. All papers have been peer reviewed. We hope this volume will provide the readers a broad overview of recent advances in the field of digital design & manufacturing technology and some advanced decisions in engineering practice.

The seminar organizing committees are grateful to all the contributors who made this volume possible. As the editor of the volume, I wish to acknowledge all peoples who have updated and reviewed the papers. Special thanks are also given to Saskia and Trans Tech Publications for their hard and careful work.

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