

## Preface

As is well known to us all, digital manufacturing and automation technology plays a more and more important role in industry advancing now. Digital manufacturing technology greatly changed the traditional manufacturing process and the state of manufacturing industry, automation technology used widely to change equipment manufacturing and at the same time make the machines more and more intelligent; in other words, it made robots technology development rapidly. In order to build a exchange platform for the scholars and experts, an international conference organized for reporting up-to-the-minute innovations and developments, summarizing the state-of-the-art, and providing an international forum to exchange ideas for the domestic and foreign scholars and experts from many areas such as Mechatronics, digital Manufacturing, deep-sea mining control Technology and equipments automation, intelligent control and detection technology.

ICDMA 2012 was sponsored by Shanghai Normal University, Guilin University of Aerospace technology, Aerospace Industries Association of Guangxi, Central South University, Tsinghua University and supported by Hunan Agricultural University and International Federation for the Promotion of Mechanism and Machine Science, China Ocean Mineral Resources R & D Association, and was held in Guilin, Guangxi Province, August 1-2. It has become an annual forum dedicated to the emerging and challenging topics in digital manufacturing, mechatronics, deep-sea mining control technology and equipments automation.

ICDMA 2012 has received 600 submissions from about ten countries and regions. All papers went through a rigorous peer review procedure and each paper received at least two review reports. Based on the review reports, and finally about 290 high quality papers was accepted and included in the proceeding book.

On behalf of the organizing committee, we thank Shanghai Normal University, Guilin University of Aerospace technology, Aerospace Industries Association of Guangxi, Central South University, Tsinghua University and supported by Hunan Agricultural University and International Federation for the Promotion of Mechanism and Machine Science, China Ocean Mineral Resources R & D Association. We gratefully acknowledge editors of TTP publisher. We also thank the members of organizing committees and the program committees. We wish to express our heartfelt appreciation to the keynote speakers, reviewers, TTP editors and students

help. Last but not least, we thank all the authors and participants for their great contribution that made this conference possible and all the hard work worthwhile.

We wish to see you in the ICDMA2012.

ICDMA2012 Organizing Committee Chair  
Yonghong.Tan

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