



Advanced Design and Manufacturing Technology IV

Part 2

Edited by
Jianzhong Lin, Tianhong Yan,
Xinsheng Xu and Zhengyi Jiang

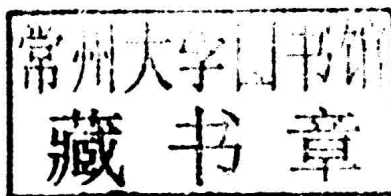


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Advanced Design and Manufacturing Technology IV

PART 2

Selected, peer reviewed papers from the
4th International Conference on
Advanced Design and Manufacturing Engineering
(ADME 2014),
July 26-27, 2014, Hangzhou, China



Edited by

**Jianzhong Lin, Tianhong Yan,
Xinsheng Xu and Zhengyi Jiang**



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Preface

The international conference on advanced design and manufacturing engineering series provides a forum for accessing to the most up-to-date and authoritative knowledge from both industrial and academic worlds, sharing best practice in the field of advanced design and manufacturing engineering. The meeting will provide an opportunity to highlight recent developments and to identify emerging and future areas of growth in this exciting field. The first of this conference series (ADME 2011) was held in Guangzhou, China, in September 2011 with the participation of Scientists from the Asia-Pacific region, Europe and the United States. The second of this conference series (ADME 2012) was held in Taiyuan, China, in August 2012 and the third one was held in Anshan (ADME 2013), China, in July 2013. Following the success of the previous conferences, the 4th International Conference on Advanced Design and Manufacturing Engineering (ADME 2014) was taken place in Hangzhou, China, From July 26 to 27, 2014. This conference successfully brought together scientists and engineers from industry and academia and provided a forum for exchange of ideas, cooperation and future directions by means of keynote speeches, regular presentations and a round-table discussion.

All papers had undergone the careful peer-review by expert referees to the professional and scientific standards before it is selected for publications in those volumes. Studies presented in this book cover these topics: Structural Dynamic Analysis, Optimization and Control, Heat, Fluid and Flow Engineering, Thermodynamics Manufacturing Applications, Advanced Design and Systems Dynamics, Mechanical Strength, Reliability, Risk Analysis and Assessment, CAD / CAM / CAE, Advanced Manufacturing and Industry Engineering, Manufacturing Production, Operations, Quality and Control, Green Supply Chain and the Internet of Things Development, Mechatronics, Industrial Robots, Automation and Control Technologies, Machine Vision Technology, Image and Video Processing, Measurement Technology, Instruments and Sensors, Detection Technologies and Methodologies, Embedded Systems and Modern Electronic, Circuit Technology, Electric, Electromagnetic and Power Engineering Applications, Computer Applications and Mathematical Modeling, Intelligent Algorithms and Optimization, Industrial Engineering and Systems Engineering, Engineering Education and Engineering Management.

We believe that this conference provided a medium for scientists and experts in the field to effectively communicate and share ideas. We would like to express our sincere thanks to all participants for their contributions and stimulating discussions. We are also grateful to keynote speakers, referees, exhibitors, committee members and many others for their patience and efforts.

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Advanced Design and Manufacturing Engineering
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