

## Preface

This volume of Materials Science Forum contains the selected papers presented at the 5<sup>th</sup> International Conference on High Speed Machining (ICHSM 2012) held in Jinan, China, from 15 to 16 August 2012.

The ICHSM aims to communication and cooperation of the research results and technology experiences about high speed machining among the research institutions, academic organizations, and machine tool industries, which supply a new opportunity for the high speed machining theory and practice in the field of science, engineering and industrial to reveal recent achievements, exchange experience of success, and to talk about the future development.

The first and the second conferences of ICHSM were held separately in Nanjing in 2004 and in Suzhou in 2006 in China successfully. Also the third and the fourth one were taken smoothly in Shanghai in 2008 and in Guangzhou in 2010. The 5<sup>th</sup> International Conference on High Speed Machining is held in Jinan, located on the one of the most active economic regions applying high speed machining technology in China.

The conference covers a wide range topics in high speed machining and micro-cutting related fields from mechanisms of machining, modeling and simulation of machining process, machine tools, cutting tools, CAD/CAM, surface integrity of machining process, difficult-to-machine materials, and non-traditional machining technologies.

On behalf of the conference committees, we would like to thank Honorable-Chairman, Prof. Ai Xing, Prof. Dr. -Ing H. Schulz, and Prof. Lu Bingheng, Chairman, Prof. Huang Chuanzhen, and Co-Chairmen, Prof. Dr. -Ing E. Abele, Prof. He Ning, Prof. Wang Chengyong, and Prof. Chen Ming, and all members of organizing committee and scientific committee. In particular, we thank Prof. Wang Jun and Prof. Guo Yuebin for their advices, supports and contributions to ICHSM 2012. We would also like to extend our acknowledgement to authors for sharing their results and experience in advance of high speed machining.

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