

## Preface

This volume of Material Science Forum contains the selected papers presented at the 12th International Conference on High Speed Machining (12th HSM) held in Nanjing, China, from 18 to 20 October 2015.

The International Conference on High Speed Machining (HSM Conference) initiated by Prof. Dr. Ing. Herbert Schulz and his colleagues, has been successfully held in Europe, namely, Darmstadt, Metz, San Sebastian and Prague for more than 10 years, promoting greatly the development of high speed machining technology.

The 12th International Conference on High Speed Machining (12th HSM Conference) were held in Nanjing, the most well development area of China, from October 18th -20th, 2015. It will establish a platform for scientists, engineers and industrialists, who on the conference, exchange technologies, share experiences and improvements, as well as discuss hot spots of researches in the field of advanced machining technology. Meanwhile, It will provide an opportunity for researchers and engineers worldwide to understand more about manufacturing in China and in the world as well.

The conference covers a wide range of topic in high sped machining related fields from mechanism and technology of high speed cutting and grinding, recent developments in high speed machine tools, recent developments in high speed cutting tools, modeling, simulation, optimization and control of high speed machining process, machine tools and cutting tools, CAD/CAM systems and strategies for high productivity, machining dynamics and process optimization, chatter avoidance, testing, measuring, diagnostics and monitoring of high speed machining, intelligent manufacturing, micromachining and environmental aspects of the design and operation of machine tools.

On behalf of the conference committees, we would like to thanks Honorable Chairman Prof. Jianying Zhu, Coodinators Prof. E. Abele, Prof. A. D'Acunto, P. Kolář, Dr. L. Uriarte, and all members of organizing committee and scientific committee for their help and strong support. We also would like to express our thanks to all the authors for their contribution to this book.

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