International Conference on Surface Finishing Technology & Surface Engineering, (ICSFT2010)

Sponsored by
The Chinese Committee for Surface Finishing Technology of CMES

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Jointly Organised by
International Committee for Abrasive Technology
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Preface

Enhancing the surface finish and integrity of engineered components is increasingly important, particularly for the workparts used in electronic and optical devices and systems. Significant progress has been made in recent years to develop new and advanced surface finishing technologies as well as to fundamentally understand the surface finishing technologies in order to adequately control and optimise the surface finishing processes in practice.

This book is a collection of selected papers from the submissions to the International Conference on Surface Finishing Technology & Surface Engineering (ICSFT2010), one of the academic conferences originated by the Chinese Committee for Surface Finishing Technology of CMES (Chinese Mechanical Engineering Society), held in Guangzhou, China, from 5 to 7 November, 2010. All the papers included in the book have gone through a peer-review process for their originality and quality.

The aim of the ICSFT2010 is to offer an opportunity to bring together academic researchers and industrial practitioners for the interchange of information on the latest development and applications in advanced surface engineering and surface finishing technologies, and to promote friendship and interdisciplinary research collaborations. During the Symposium, an exhibition will be held to demonstrate some development of new equipment and tools for surface finishing, polishing and deburring.

The topics covered in the book include:

- Modelling and simulation of super-finish surfacing processes and mechanisms
- Precision and super-precision grinding and finishing techniques for advanced materials
- Advanced techniques/technologies and fundamental studies for enhancing component surface properties and characteristics
- Super-finish surface topography, integrity and characterisation
- Advanced deburring techniques and theories
- Advanced abrasives and equipment for surface finishing processes

We believe that the book provides a valuable reference for researchers in the field of and surface engineering and surface finishing technologies. It should also be particularly useful for practicing engineers in precision manufacturing who are responsible for the efficient and effective operations.

We would like to thank all the authors for their contributions to the book and the referees for their constructive comments on the papers.

The Editors

30 July, 2010