# Special Issue

# Machine Tools for Precision Machining: Design, Control and Prospects, 2nd Edition

## Message from the Guest Editors

Precision machining has become essential to the manufacturing sector and has been found to create many critical parts for aerospace, electronics, and medical industries, among others. It generally involves a high-velocity machining process that makes parts requiring tight tolerances, high complexities, or both. This can be achieved through the use of advanced computerized machine tools with a high degree of repeatability and accuracy. At present, due to the continuous emergence of various new materials and new processes, complex material mechanisms, cumbersome manufacturing processes, and harsh processing conditions have put forward higher and higher performance requirements for machine tools. Therefore, precision machining requires the in-depth development of advanced theories and technologies, such as machine tool motion planning, error control and compensation, machining chatter prediction and suppression, cutter wear and chatter monitoring, bearing fault diagnosis, and process parameter optimization, to ensure that the required accuracy and stability are maintained in the face of evolving challenges.

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## Editor-in-Chief

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