Editorial for Special Issue

Special Issue on Advanced Precision Engineering for Digital Transformation

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“The digital transformation can be understood as the changes that the digital technology causes or influences in all aspects of human life” (definition by Prof. Erik Stolterman). In order to manufacture high value-added products and create a sustainable society, the digital transformation, based on advanced precision engineering, will be an urgent task within manufacturing systems.

This special issue consists of eight excellent research papers that focus on advanced precision engineering in manufacturing systems. All research papers were presented at the 18th International Conference on Precision Engineering (ICPE2020). The ICPE2020 covered various topics, including digital design, CAD/CAM technology, traditional cutting/grinding, non-traditional additive manufacturing, machine tools, measurement, robotics, control, and others. Held during the COVID-19 pandemic, it was a virtual conference that saw 189 papers presented in the oral session and 38 papers presented in poster session. The COVID-19 pandemic demands the innovation of current manufacturing systems with new concepts and methodologies, and the editors hope that the research papers in this special issue give us valuable information for the digital transformation of manufacturing systems.

All papers were refereed through careful peer reviews. The editors deeply appreciate the efforts and excellent work of all the authors and anonymous reviewers in realizing this special issue. Finally, we hope that future research on precision engineering in manufacturing will further contribute to the achievement of the Sustainable Development Goals (SDGs) of our global society.