Smart Manufacturing Processes in the Context of Industry 4.0

Message from the Guest Editor

This Special Issue is seeking paradigms and applications of pertinent systems including cyber-physical systems. Topics include, but are not limited to, the following:

- Data and information-driven schemes and their real-time implementation for control of manufacturing processes, both stand-alone and chains thereof.
- Sensor-based data collection for monitoring manufacturing processes as well as the pertinent equipment, such as machine tools, tools, jigs and fixtures, etc.
- Intelligent algorithms, tools and IT infrastructure, for assessing manufacturing process and product quality in real time, including computer vision.
- Self-correction of manufacturing process setup in real-time based on models, sensors and/or large data.
- Virtual and Augmented Reality for designing, planning, monitoring or supporting the execution of manufacturing processes.
- Sensor and software-based real-time reconfiguration of machine tools.
- Smart machine tools, with internet-enhanced functionality, including 3D printers, hybrid material addition-removal machines and photonics-based machines.

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Guest Editor