

Special Issue

Intelligent Manufacturing Systems: Advanced Materials, Machinability, and Smart Robotics

Message from the Guest Editors

The global economy—and particularly sectors focused on the design and production of advanced materials, material processing, advanced intelligent manufacturing systems, and intelligent robotics with autonomous mobile transport robots—requires continuous research and innovation to develop new solutions that ensure a competitive market advantage. Given the need to decrease the weight of machines and devices while maintaining their strength, the development of new structural materials is crucial. Research in materials science focuses on creating new alloys, composite materials, and spatial structures with predictable and designable mechanical properties, corrosion resistance, recyclability, and reusability. The introduction of new materials often requires the development of innovative technologies for their processing and formation, as well as new methods for decommissioning and recycling. Integrating these new technologies into manufacturing systems demands effective process management and reliable solutions. In this Special Issue, we welcome the latest research results contributing to the development of advanced materials, machining technologies, and robotic manufacturing systems.

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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