Special Issue

Monitoring of Cutting Process and Tool Condition of Metal and Metal Composite

Message from the Guest Editors

Machining is used widely in various industries, and machine parts with high precision must be obtained and employed. This is an important process in machine industry. The most common construction materials used in machining are steel and cast iron. But these materials are shrinking because of advanced, difficult-to-cut materials such as composites. Tool life is significantly smaller with composite materials than with conventional materials, whereas the machining of composite materials can affect surface roughness and technological effects. During surface layer formation of composite materials, the random factor is relevant, and so are monitoring systems which can assess the machining process and tool life, as well as the technological effects in real-time machining. Such systems are based on acoustic emission, cutting forces, vibrations, noise, or temperature signals. And these signals, extraction of appropriate features and identification of the process and tool state is possible. Therefore, monitoring systems should significantly improve the technological effects, process efficiency and reduce costs. We kindly invite you to submit a manuscript(s) to this Special Issue.

Guest Editors

Prof. Dr. Paweł Twardowski

Faculty of Mechanical Engineering, Poznan University of Technology, 60-965 Poznan, Poland

Prof. Dr. Michal Wieczorowski

Faculty of Mechanical Engineering and Management, Poznan University of Technology, Poznan, Poland

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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