



an Open Access Journal by MDPI

# Robotization of Machining Processes: Theory and Industrial Applications

Guest Editors:

### Prof. Dr. Edouard Rivière-Lorphèvre

Machine Design and Production Engineering Lab, University of Mons, Place du Parc 20, B-7000 Mons, Belgium

#### Dr. Piotr Gierlak

Department of Applied Mechanics and Robotics, Rzeszów University of Technology, 35-959 Rzeszów, Poland

Deadline for manuscript submissions: closed (31 December 2021)



mdpi.com/si/78244

## Message from the Guest Editors

Dear Colleagues,

The robotization of mechanical machining processes is an area of robot application that has been developed for many years. The use of robots mainly concerns processes that require high maneuverability and the control of interaction forces during machining. Although there are robot control strategies and algorithms dedicated to mechanical processing, many processes require a nonstandard approach, e.g., in the aerospace industry. At the same time, there are many theoretical solutions for the robotization of machining that unfortunately require very strict conditions.

The purpose of this Special Issue is to present the latest developments in robotic machining that have both theoretical background and utilitarian value confirmed by real applications or even preliminary laboratory tests. New ideas on all aspects of robotic machining, such as modeling, control, vibration reduction, soft computing, process monitoring, or economic aspects, are welcome. Prof. Dr. Edouard Rivière-Lorphèvre Prof. Dr. Piotr Gierlak *Guest Editors* 







an Open Access Journal by MDPI

# **Editor-in-Chief**

#### Prof. Dr. Marco Ceccarelli

LARM: Laboratory of Robotics and Mechatronics, University of Cassino and South Latium, 03043 Cassino, Italy

## Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step.

It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

# **Author Benefits**

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions. **High Visibility:** indexed within Scopus, ESCI (Web of Science), dblp, Inspec, and other databases.

Journal Rank: JCR - Q2 (Robotics) / CiteScore - Q1 (Mechanical Engineering)

## **Contact Us**

*Robotics* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/robotics robotics@mdpi.com X@RoboticsMDPI