# Special Issue

# Design and Optimization of Computer Numerical Control (CNC) Machining Technology

## Message from the Guest Editors

The field of CNC machining technology holds significant importance in modern industrial applications, particularly with the advent of Industry 4.0 and the growing demand for manufacturing highly complex and precise components. This Special Issue, *"Design and Optimization of CNC Machining Technology"*, aims to present the latest advancements and innovative methodologies that optimize machining processes, enhance efficiency, and maximize dimensional precision. The topics of interest for this issue include, but are not limited to, the following:

- The development of advanced machining strategies and toolpath designs;
- Optimizing techniques for cutting parameters and tool selection;
- The simulation and modeling of CNC machining operations;
- Novel CNC machining methods and technologies;
- Strategies for error minimization and precision enhancement;
- The integration of CNC systems with AI and machine learning;
- Emerging trends in CNC machining, such as additive manufacturing and hybrid approaches;
- Progressive machining technologies, including multi-axis machining and ultrafast machining methods.

## Guest Editors

Dr. Vladimír Šimna

Dr. Marcel Kuruc

Dr. Peter Pokorny

## Deadline for manuscript submissions

20 August 2025

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## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Editor-in-Chief

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