Special Issue

Tool Wear Prediction in Manufacturing

Message from the Guest Editor

In both metal cutting and metal forming, controlling the tool wear rate is critical as it affects part geometry, surface, and subsurface integrity. Furthermore, the selection of process parameters, thin film tool coatings and cutting environment, especially for materials with high strain hardening sensitivity and low thermal properties, is dependent on striking a balance between tool wear rate and productivity. At the present moment, the majority of the models could predict wear rate at the flank face region only. Unfortunately, few have the ability to predict the crater wear rate. The tool wear rate predicted by analytical or empirical models is triggered by either mechanical or thermal loadings and at the steady-state wear rate region. Limited published models have the ability to predict the transition between transient and steady-state wear rate. However, this limitation could be overcome using finite element (F.E.) methods. In F.E., the accuracy is controlled by both material's empirical constant and friction models with a coefficient of friction that is dependent on temperature... For further reading, please visit mdpi.com/si/34160.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (*JMMP*)(ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP.*

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