Special Issue

Cyber-Physical Systems in Intelligent Manufacturing

Message from the Guest Editors

With the integration of AI, CPS are transformed in order to enable human–cyber integration and the generation of human–cyber-physical systems (HCPS), in an attempt improve working environments by further reducing uncertainties due to the presence of human operators. Furthermore, with the integration of HCPS, new opportunities arise for the utilization and synthesis of heterogeneous data derived from cross-domains and cross-layers. Thus, intelligent manufacturing systems will be able to percept, analyze, and assist engineers in decision-making and control processes. Beyond that, due to the nature of AI frameworks, intelligent manufacturing systems are also capable of learning, adapting, and generating knowledge. Therefore, this Special Issue will gather research studies which explore the opportunities and challenges arising from the integration of cutting-edge technologies in modern manufacturing and production systems and networks, as well as studies which discuss the design, development, and implementation of HCPS frameworks for keeping human-in-the-loop.

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There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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