Special Issue

Machine Intelligence in Welding and Additive Manufacturing

Message from the Guest Editors

Arc welding and wire arc additive manufacturing (WAAM) use arcs to melt/process workpieces. While arc welding joins separate workpieces together, WAAM joins the added materials to the workpieces to grow it. All such processes share a common mechanism: arc melts/heats/processes the workpiece forming a weld pool whose dimension/shape/cooling decides the outputs of concern. Producing desirable outputs requires the ability to predict and control process dynamics, upon fundamental knowledge about how process parameters/operations affect the dynamics. Deep learning (DL) networks are capable of automatically generating different "features" so that proposing features and evaluating the degree of success and effectiveness are automated toward the best results. This Special Issue calls for papers that innovatively use the deep learning approach to better solve existing challenges in arc welding and WAAM and to lead to more effective arc welding and WAAM processes. For further reading, please follow the link to the Special Issue Website at: mdpi.com/si/93507.

Guest Editors

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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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