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# Thermal Analysis, Modeling and Simulation in Engineering Processes

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## Message from the Guest Editors

Engineering processes form the backbone of modern industrial and technological advancements, which include a wide range of activities involved in designing, developing, and optimizing systems, products, and infrastructure. In this field, thermal analysis plays a crucial role to provide us with a deep insight into the complex thermal phenomena. Understanding and controlling temperature distribution, heat transfer and thermal-induced effects are vital for optimizing process parameters, improving product quality and ensuring operational efficiency. The integration of thermal analysis techniques with advanced modeling and simulation approaches offers a powerful toolset to investigate and predict thermal behavior in manufacturing processes, such as casting, welding, additive manufacturing, machining and heat treatment.

This Special Issue invites researchers and practitioners to contribute their original research, reviews and case studies covering a wide range of topics, including innovative thermal analysis methods, advanced modeling techniques, experimental investigations, optimization strategies and real-world applications.

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## Message from the Editor-in-Chief

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