

Special Issue

Recent Advances in Digital Twins and Cognitive Twins

Message from the Guest Editor

In recent years, digital twin technology has been widely adopted as a sophisticated and flexible methodology to design high-fidelity models of cyber-physical systems for simulation, optimization, verification and validation purposes. This has led to a considerable impact in industry in terms of reduction of testing and feasibility cost, time to market and quality improvement of the products and services. A digital twin is a model replica of a cyber-physical system (known as a physical twin) calibrated using actual data from the physical twin. Such a high-fidelity digital twin model can then be used to conduct different experiments such as functionality assessments under uncertainties, behaviour customization using machine learning techniques, performance analysis through optimization, etc. This Special Issue aims to cover recent advancements in the design, engineering and utilization of digital twins for industrial applications, with a particular interest in artificial intelligence, optimization and validation.

Guest Editor

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