Special Issue

Next-Generation Engineering and Design Toolsets: Boosting Human Creativity by Mixed Reality and Artificial Intelligence

Message from the Guest Editor

Mixed Reality (MR) and **Artificial Intelligence (AI)** are transforming approaches to engineering and design in the digital era. This Special Issue aims to explore **human-centered innovations** that enhance immersive experiences and redefine creative activities such as conceptualization, design, presentation, prototyping, manufacturing, retail and recycling. We encourage interdisciplinary research that integrates MR technologies, AI, human factors, user experience, and ergonomics, with a particular focus on AI-enhanced MR workflows, intuitive user interfaces, collaborative systems, digital twins, real-time simulation, workforce training and upskilling, workspace enhancement, smart manufacturing, product lifecycle management, and architectural or design visualization. **The scope of this Special Issue includes, but is not limited to, the following topics:** *The application of AI-enhanced MR in industrial design; *Real-time simulation and digital twin integration; *Mixed Reality for architectural walkthroughs and urban planning; *Human-AI collaboration in virtual prototyping; *Ergonomic evaluation of immersive user interfaces; *MR and AI in education, training, and skill transfer;

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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