

Artificial Intelligence for the Future of Construction *

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Abstract

Artificial intelligence (AI) is transforming industries worldwide, and the construction sector is no exception. With rapid advancements in AI technologies, the potential for automating processes, optimizing operations, and enhancing decision-making within construction has never been greater. As the industry generates an ever-growing volume of data, the importance of leveraging AI to extract actionable insights has become undeniable. Many construction companies are already experiencing the tangible benefits of AI, including improved efficiency, reduced costs, and enhanced safety protocols. To support the exchange of knowledge and foster collaboration among industry professionals, researchers, and innovators, we organized the 2nd International Workshop on Artificial Intelligence for the Future of Construction (AI4Construction-2025). Held in Lviv, Ukraine, from April 03-05, 2025, alongside the 2nd International Conference on Smart Automation & Robotics for Future Industry (SMARTINDUSTRY-2025), the workshop served as a platform for discussing and exploring the latest advancements in AI for the construction sector. The AI4Construction-2025 workshop brought together over 60 researchers and practitioners from various countries, providing a unique opportunity to exchange ideas, present innovative solutions, and discuss the future of AI in construction. This initiative has significantly contributed to the development of a global community of experts focused on advancing AI-driven solutions for sustainable and efficient construction practices. The workshop was funded by the European Union's Horizon Europe research and innovation program under grant agreement No 101138678, project ZEBAI (Innovative methodologies for the design of Zero-Emission and cost-effective Buildings enhanced by Artificial Intelligence).

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