Artificial Intelligence in Wastewater Treatment

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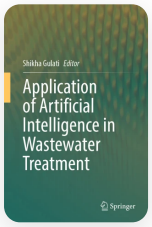

Application of Artificial Intelligence in Wastewater Treatment

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Abstract

Artificial Intelligence (AI) can recognize significant relationships by analyzing datasets from the rapidly developing technological era. The amalgamation of artificial intelligence (AI) into wastewater treatment processes represents a paradigm shift in the management of water resources. AI techniques and machine learning models have been demonstrated to be useful in simplifying, modeling, and optimizing critical water and wastewater treatment applications, tracking and controlling ecological systems, and freshwater-based agriculture. This chapter delves into the fundamentals of AI and its applications in wastewater treatment. Beginning with an exploration of machine learning and neural networks, it delves into how these technologies are revolutionizing traditional