Machine Learning Based Techniques for Communication and Signal Processing Problem

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A R T I C L E I N F O	**ABSTRACT**
	This paper provides an introduction of how machine learning-based approaches, such as deep neural networks, echo-state networks, reinforcement learning, and federated learning, may be utilised to tackle complicated and analytically unsolvable optimization problems. The study focuses on whether learning-based algorithms are beneficial for addressing specific optimization problems, particularly ones that are unpredictable, dynamic, and mathematically difficult. The study then demonstrates such applications by giving specific use-cases in communications and signal processing, such as wireless scheduling, wireless offloading and resource management, power control, and aerial imaging..

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