

# **“A Decentralized Coordination Strategy for Voltage Regulation of Active Distribution Networks**

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## **Abstract**

This paper presents a fully decentralized coordination strategy based on Multi-Agent System (MAS) for voltage regulation in active distribution networks (ADNs). The strategy is based on coordinating the operation of Distributed Generators (DGs) and On-Load Tap Changer (OLTC) to maintain the bus voltages within acceptable limits. The strategy attempts to maximize the use of the renewable based DGs while minimizing the operation of the OLTC. Several case studies are presented to show the effectiveness and robustness of the proposed strategy.

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