# AC microgrid gain matrix

## Overview

This article aims to provide a comprehensive review of control strategies for AC microgrids (MG) and presents a confidently designed hierarchical control approach divided into different levels. ifferent control architectures for the secondary control (SC) layer. The use of new SC architectures involving CI is motivated by the need to increase MG resilience and h ndle the intermittent nature of distributed generation units (DGUs). These levels are specifically designed to perform functions based on the MG's mode of operation, such as. The objective of this study is to improve the real-time operation of an AC microgrid for a network with high line R/X ratios.

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