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MEDIA WAVE TECHNOLOGIES

Regenerative Energy Recovery from Electric Trains for EV Charging Infrastructure

Problem Statement

Electric trains consume a large amount of electrical energy during operation. During braking or low-load conditions, a portion of this electrical energy is dissipated as heat or returned to the grid inefficiently, leading to energy losses. At the same time, the demand for electric vehicle (EV) charging infrastructure is rapidly increasing. There is a need for an intelligent system that can capture unused or regenerative energy from electric trains and utilize it efficiently for EV charging stations, thereby improving energy efficiency and reducing power losses in railway systems.