

ICRERA 2024
13th INTERNATIONAL CONFERENCE ON RENEWABLE
ENERGY RESEARCH AND APPLICATIONS

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Abstract

Title: High performance motor drive techniques by multiple inverters

Recent development of power devices leads to high power density and high efficiency in the motor drive. Especially for the EV traction motor, high power machine drive technique driven by multiple inverters have been developed. Usually the multiple inverter drive has an advantage for the fault tolerance system, however, recent motor design techniques including multi-phase motor can fully utilize the advantage of multiple inverter.

This talk summarizes motor drive systems using multiple inverters, and describes their advantages, control technology that is only possible with multiple inverters based on teeth flux density control, and applications to magnetic flux density vector control.