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Nota di contenuto	Effects of Varying Inductance Value on Converter Efficiency and Performance -- Boost Battery Charger Modeling -- Development of Dynamic Inductor Control (DIC) and Maximum Energy Transfer (MET) Concepts -- Dynamic Inductor Control Concept Simulation and Implementation.
Sommario/riassunto	Omar Abu Mohareb proposes a novel dynamic inductor control (DIC) that can be generally applied to various DC-DC converter types. The aim is to improve the converter efficiency throughout controlling the inductance value at all operating points without consequential complexity or increase in the inductor cost and size. The dynamic inductor control implies the maximum energy transfer (MET) concept to improve the DC-DC converter efficiency and preserve a fast system dynamics against load changes at the same time. Contents Effects of Varying Inductance Value on Converter Efficiency and Performance Boost Battery Charger Modeling Development of Dynamic Inductor Control (DIC) and Maximum Energy Transfer (MET) Concepts Dynamic Inductor Control Concept Simulation and Implementation Target Groups Researchers and students in the field of power electronics and

electromobility Development engineers and specialists from the automotive and supplier industries who deal with electromobility, power supplies and charging infrastructure About the Author Omar Abu Mohareb has earned his doctoral degree in Automotive Mechatronics Engineering from University of Stuttgart. He is now active in electromobility field and its efficient and smart infrastructure concepts. He has also earned his first patent on the proposed dynamic inductor control (DIC) concept.

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