

CERTIFICATE OF APPRECIATION



This is to certify that Workshop

*"Electrical & Thermal considerations in high frequency inductor design for industrial
converters"*

by

Dr. Ali Asghar Ghadimi

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Dr. A. Sheikholeslami
GENERAL CHAIR



Specialized Workshops and Meetings

Workshop #1

Electrical & Thermal considerations in high frequency inductor design for industrial converter

By : Dr. Mazdak Ebadi, Assistant prof, Department of Electrical Eng., Arak University, Arak, Iran, The CEO of the Knowledge Enterprise "Camellia Innovators in Electronic Industry", the developer of "15 kW DC switching power supply"

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Headlines:

Part 1: Introduction to HF inductor design based on Ferrite & Iron Powder cores

- Introduction to iron powder & ferrite materials available in the market
- Electrical Specs of the High frequency cores based on the datasheet
- Different types of core materials for different applications
- Inductor design using datasheet tables, and theoretical aspects
- Selecting the best option for cores and wires
- Thermal aspects and considerations in inductor design
- Efficiency calculation and measurement for a HF inductor
- Practical tips in inductor design based on electrical & Thermal considerations

Part 2: Experimental Case Study:

Inductor design based on KT520-52D Iron Powder core for a 15 kW / 7.2 kHz / 380 Vac to 50-300 Vdc / 50 Amp synchronous buck converter

Design Procedure

Electrical Simulation

Experimental electrical results

Experimental thermal analysis results