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Dr. Ihsan Erdin

SI & PI Engineer at Celestica &
Adjunct Faculty at Carleton University, Ottawa, Canada
**“Fundamentals and Recent Advances
in Power Integrity Analysis Methods
of Data Communication Systems”**

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21073 Hamburg
Room 0053/54 (WiKom), Building I (DE 22)

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EMC Distinguished Lecture by Dr. Ihsan Erdin

Fundamentals and Recent Advances in Power Integrity Analysis Methods of Data Communication Systems

Although signal and power integrity practices are as old as the digital design itself, unlike SI, PI still remains as an elusive concept in the eyes of industrial circles. One reason is the cause-and-effect relation in PI analysis hasn't been firmly established in practical applications. For example, with SI analysis, a logic failure can be traced to a noise threshold violation. PI analysis, on the other hand, hardly points out to a smoking gun with the same rigor. Starting from a qualitative and descriptive introduction of power noise fundamentals, the current analysis techniques for printed circuit structures will be reviewed and some recent developments including the multipin optimization of capacitors will be presented on sample cases.

Ihsan Erdin is a Senior Member of the IEEE and is currently serving as a Distinguished Lecturer for the IEEE EMC Society. Ihsan has spent 20 years as signal integrity (SI) and power integrity (PI) engineer in industry and is very well known for his experience in these fields.

In the last 20 years, Ihsan Erdin worked as a signal and power integrity engineer at Nortel and Celestica where he contributed in the development and design analysis of a multitude of data communication circuits and systems. In addition to his current position at Celestica, he is an adjunct faculty member at the Electronics Department of Carleton University. His research interests are analytical and computational electromagnetic methods with application to printed and integrated circuits. Fascinated by the beauty of electromagnetic theory, he never stopped learning and researching in this field while sharing his knowledge and experience with numerous technical publications to his credit and more than a dozen Distinguished Lecturer talks in European and North American EMC Chapters since his assignment to this position. Ihsan is a member of the Professional Engineers Ontario, a senior member of IEEE and holds a Ph.D. degree in electrical engineering.