



Keynote speaker:

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Title of the Presentation:

Power Integrity Challenges, Trends and Promises

Istvan Novak is a Principal Signal and Power Integrity Engineer at Samtec, working on advanced signal and power integrity designs. Prior to 2018 he was a Distinguished Engineer at SUN Microsystems, later Oracle. He worked on new technology development, advanced power distribution, and signal integrity design and validation methodologies for SUN's successful workgroup server families. He was engaged in the methodologies, designs and characterization of power-distribution networks from silicon to DC-DC converters. He is a Life Fellow of the IEEE with twenty-nine patents to his name, author of two books on power integrity, teaches signal and power integrity courses, and maintains a popular SI/PI website. Istvan was named Engineer of the Year at DesignCon 2020.

Abstract

Power integrity is a relatively new discipline and it is quickly becoming the new boogie man for circuit and board designers. Some say that after signal integrity has matured, now power integrity has become the new black magic. We will look into the reasons why power integrity is so difficult, will analyse past predictions and current challenges. We will touch upon the safety and reliability concerns brought on us by the proliferation of electronic circuits in all walks of life from tiny energy-harvesting circuits through consumer electronics products to high-power electronics in autonomous vehicles.