

Second lecture (2 hours)

GROUNDING: THE GROUNDS FOR EMC DESIGN

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“One of the problems with grounding is the term itself... it’s too vague... Often a single ground may serve multiple needs, with different rule to each”



The discipline of Electromagnetic Compatibility (EMC) is concerned with the design of Electronic Systems, while minimizing electromagnetic coupling and interference from within the system and between the system to its environment. It covers and requires involvement in a wide range of other fields of engineering, system engineering and electronic engineering, etc. The concept of “grounding” is probably among the most important, yet less understood topic of electronic design, often considered as “black magic”. Yet – grounding forms an inseparable part of all electronic and electrical designs, from circuit through system up to installation design. Grounding is implemented for EMC and ESD protection, for safety purposes, for lightning and surge protection, etc. This lecture is intended to shed some light on the fundamental concept of grounding - an essential and inseparable concept in EMC design. No design will be acceptable without it being properly implemented.