



EMV Stuttgart Meeting 2017

Das Treffen des Deutschen Chapters der IEEE EMC Society!

Herzlich eingeladen sind alle Mitglieder, die an unseren Aktivitäten interessiert sind und den Kontakt zu unserem Chapter suchen.

Für ein kostenloses Tagesticket für Messe und Mitgliedertreffen melden Sie sich bitte per E-Mail mit Name und Kontaktadresse bei Frau Susanne Kaule, Marketing & Member Services, bis zum **10.03.2017** unter kaule@langer-emv.de

Get-together, Networking und Informationsaustausch in einem Meeting auf der EMV Stuttgart!

Treffen Sie alte und neue Kollegen, erfahren Sie von den Initiativen 2017 des German EMC Chapters und lernen Sie den EMCS President Elect Dr. Bruce Archambeault sowie das neue Executive Committee des Chapters kennen.

Datum: Mittwoch, 29. März 2017

Zeit: 15:00 bis ca. 17:30 Uhr

Ort: ICS

Internationales Congresscenter Stuttgart
Messeplazza 1, 70629 Stuttgart
Raum C6.1

Programm: 15:00 Begrüßung durch den Vorstand
15:10 Bruce Archambeault: The Ground Myth
15:50 Vorstellung des Chapters und seiner Aktivitäten
16:20 Bruce Archambeault: How to give Effective Presentations
17:00 Abschlussdiskussion und Networking
17:30 Ende der Veranstaltung



Technical Talk by Bruce Archambeault: The Ground Myth & How to Give Effective Presentations

The term "ground" is probably the most misused and misunderstood term in EMC engineering, and in fact, in all of circuit design. Ground is considered to be a zero potential region with zero resistance and zero impedance at all frequencies. This is just not the case in practical high-speed designs. The one thing that should be remembered whenever the term "ground" is used, is that "Ground is a place where potatoes and carrots thrive!" By keeping this firmly in mind, many of the causes of EMC problems would be eliminated.

The term "ground" is a fine concept at DC voltages, but it just does not exist at the frequencies running on today's typical boards. All metal has some amount of resistance, and even if that resistance was near zero ohms, the current flowing through a conductor in a loop creates inductance. Current through that inductance results in a voltage drop. This means that the metal ground plane/wire/bar/etc. has a voltage drop across it, which is in direct contradiction with the intention and definition of ground.

This presentation discusses the origin of the word "ground", what we really mean when we use the term "ground" and how to optimize our designs to achieve the over all goals for our reference strategy.

It is extremely important to every engineer that they learn to give effective presentations! As engineers, we often develop excellent technical skills, but have little training in other areas. No matter how good or important an engineer's results might be, if he/she can not effectively communicate them, the ideas/results will not be valued by their management and/or peers. This presentation covers the main areas of presentations, including delivery skills, presentation materials and finally, the content. Techniques to help over come nervousness are discussed as well as a number of common mistakes that people make that can distract the audience from the presentation content.

Dr. Bruce Archambeault is an IEEE Fellow, an IBM Distinguished Engineer Emeritus and an Adjunct Professor at Missouri University of Science and Technology. He received his B.S.E.E degree from the University of New Hampshire in 1977 and his M.S.E.E degree from Northeastern University in 1981. He received his Ph. D. from the University of New Hampshire in 1997. His doctoral research was in the area of computational electromagnetics applied to real-world EMC problems. He has taught numerous seminars on EMC and Signal Integrity across the USA and the world, including the past 14 years at Oxford University.

Dr. Archambeault has authored or co-authored a number of papers in computational electromagnetics, mostly applied to real-world EMC applications. He is a member of the Board of Directors for the IEEE EMC Society and a past Board of Directors member for the Applied Computational Electromagnetics Society (ACES). He currently serves as the President-Elect for the IEEE/EMC Society. He has served as a past IEEE/EMCS Distinguished Lecturer, EMCS TAC Chair and Associate Editor for the IEEE Transactions on Electromagnetic Compatibility. He is the author of the book "PCB Design for Real-World EMI Control" and the lead author of the book titled "EMI/EMC Computational Modeling Handbook".