

TUTORIAL - CAD EMBEDDED ELECTRO-MECHANICAL SIMULATION WITH APPLICATIONS

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Ahmed holds a BS and MS in Engineering Science from the Pennsylvania State University (1985, 1986), and Ph.D. degree in Electrical and Computer Engineering from the University of Illinois at Urbana-Champaign (1989). He is the general manager of ElectroMagneticWorks (EMW). Prior to joining EMW, he worked at General Electric Corporate Research and Development, Schenectady, New York, as a Senior Scientist where he led a team to develop innovative radar cross section prediction technology. He also held a research position at the University of Montreal where he designed miniature antennas that are inserted in a human heart for the treatment of cardiac arrhythmia.

Abstract - In today's fast paced engineering product design environment, 3D and collaborative design is unavoidable. Engineers across multiple discipline work jointly during the product development stage and this is enabled by 3D CAD and PDM systems. Simulation has become an integral part of the product development cycle and engineers adopt simulation early in the cycle. This leads to better quality products, fewer prototypes and faster time to market. EMS is a product of EMW that is embedded inside popular 3D CAD like SOLIDWORKS, Autodesk Inventor and SpaceClaim. EMS is a full 3D field simulation software that helps engineers simulate real life electrical machines like motors, transformers, linear actuators, solenoids, sensors, high voltage devices etc. In this tutorial, Ahmed will walk you through some of the basics of EMS talking about its philosophy of doing simulations with various real life examples. You can learn how EMS can help you in your product development process and also find out how to get a free trial version of EMS. We look forward to seeing you in this session.