Invitasjon
Seminar i Pakketeknologi og MEMS for RF/ mikrobølge!

Høgskolen i Vestfold, IEEE MTT/ AP, Electronic Coast og NCE Microsystems inviterer til heldags-seminar ved Høgskolen i Vestfold **19. september**. Vi er stolte over å kunne presentere internasjonalt ledende forelesere innen pakketeknologi spesielt for høyfrekvens systemer og RF-MEMS. Sett av datoen nå! Nærmere informasjon kommer etter sommerferien.

Forelesere er:
Wolfgang Heinrich,
Ferdinand-Braun-Institut für Hoechstfrequenztechnik, Berlin
Tidligere MTT Distinguished Lecturer
„Flip-Chip for Millimeter-Wave and Broadband Packaging“

Kari Kautio,
VTT, Finland
„LTCC – packaging & smart system integration”

Héctor J. De Los Santos
NanoMEMS Research, LLC (Irvine, California)
EDS Distinguished Lecturer, og tidligere MTT Distinguished Lecturer
“Applications and Trends in RF MEMS”

Mer detaljert informasjon om foredrag og forelesere:

Wolfgang Heinrich: Flip-Chip for Millimeter-Wave and Broadband Packaging

Emerging packaging solutions. Flip-chip is one markets for mm-wave wireless and sensor systems as well as high bit-rate components demand for cost-effective of the most promising approaches in this regard combining high-volume potential with excellent high-frequency performance. The talk presents the different flip-chip concepts in use, focusing on the microwave characteristics and approaching the subject from the designer's point of view. Basic electromagnetic properties of the interconnects as well as consequences for chip and package design are discussed. As carrier substrates, conventional ceramics, thin-film, and LTCC-multilayer approaches are covered. Experimental results for various applications document feasibility and capabilities in the frequency range up to 100 GHz.

Héctor J. De Los Santos: Applications and Trends in RF MEMS

Microelectromechanical Systems (MEMS) applications in RF and microwave electronics are on the verge of revolutionizing wireless communications. In this tutorial we discuss the fundamentals of this exciting technology, potential pitfalls to be encountered, and typical applications where MEMS is expected to make the greatest impact in RF/microwave circuits and systems. In particular, the ability of MEMS' fabrication techniques to enhance the performance of passive components, e.g., capacitors, inductors, transmission lines, and switches, is addressed, and a number of potential wireless system opportunities, namely, wireless transceivers, routing networks, and tracking antennas for mobile multimedia communications, awaiting the maturation of MEMS, are discussed.

Héctor J. De Los Santos received the Ph.D. degree from the School of Electrical Engineering, Purdue University, West Lafayette, IN, in 1989. He is President and CTO of NanoMEMS Research, LLC, Irvine, CA, a company engaged in Nanoelectromechanical Quantum Circuits and Systems and RF MEMS (NanoMEMS) research, consulting, and education, where he focuses on discovering fundamentally new devices, circuits and design techniques to implement NanoMEMS Systems-on-Chip. From 2000 to 2002, he was Principal Scientist at Coventor, Inc., Irvine, CA, with activities including the conception, modeling, and design of novel RF MEMS devices. From 1989 to 2000, he was employed at Hughes Space and Communications Company, Los Angeles, CA, as Director of the Future Enabling Technologies IR&D Program, pursuing research in the areas of RF MEMS, Quantum Functional Devices and Circuits, and Photonic Bandgap Devices and Circuits. Dr. De Los Santos holds 16 US patents, and is author of bestseller textbooks, including *Introduction to Microelectromechanical (MEM) Microwave Systems* (1999), *RF MEMS Circuit Design for Wireless Communications* (2001), and *Principles and Applications of NanoMEMS Physics* (2005). From 2001-2003 he lectured worldwide as an IEEE Distinguished Lecturer of the MTT Society. He has been recently elected an IEEE Distinguished Lecturer of the Electron Devices Society.

Kari Kautio: LTCC – packaging & smart system integration

Kari Kautio received M.Sc. in Electrical Engineering from Oulu University, Finland in 1983. From 1983 to1987 he was a research scientist at Oulu University Microelectronics laboratory and worked on thick film hybrid applications. From 1987 to 1989 he worked as thick film process engineer at Aspo Microelectronics. In 1989 he joined VTT Electronics, where he is working as senior research scientist on LTCC processing technology and ceramic based module packaging.