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## S E M I N A R

**Room 119C, ZEC**

March 8, 2013 10:20-12:00 P.M.

### Model Based Systems Engineering for High Speed Optical Links

by

Karl Muth

Texas Instruments, Inc.

**Abstract** With the never ending hunger for more bandwidth in communication systems, data rates for serial links are driven from 10Gbps to 100Gbps and beyond. In order to design integrated circuits at these speeds a systems design approach is required beyond the transistor level design in silicon. IC, package, and PCB co-design, as well as optical end-to-end link simulations and system compliance testing are required. This seminar gives an introduction to TI's high speed optical product portfolio and the system engineering methodology required to address today's and future needs.

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**Karl Muth** is a systems engineer with Texas Instruments responsible for high speed interfaces. He is currently working on systems design, architectures, and product definition of optical transceivers up to 28Gbps. Karl has been with Texas Instruments since 2002 and has worked on the design of multi Gbps optical interface devices such as TIAs, limiting amplifiers, laser diode drivers as well as backplane SERDES and equalizers up to 15Gbps.

During his professional career he has also worked on microwave digital radio systems and circuits for wireless backhaul devices in frequency bands up to 35GHz. Karl holds a Dipl.-Ing. degree in Electrical Engineering from the Technical University Darmstadt, Germany.

