ADVANCED MATERIALS AND DEVICES LABORATORIES
SCHOOL OF ENGINEERING, UNIVERSITY OF TOKYO

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SEMINAR ANNOUNCEMENT

Prof. Meint K. Smit

Dept. of Electrical Engineering, Delft University of Technology
Delft, the Netherlands

"PHOTONIC INTEGRATED DEVICES FOR WDM NETWORKS"

DATE: Friday, July 10, 1998
TIME: 16:00–17:00
PLACE: Rm. 400, Engineering Building 10

ABSTRACT

The explosive growth of WDM-applications is creating a market for advanced WDM-devices and modules. Photonic integration offers the potential to provide the functionality required in future MW-networks in a compact way. A key component in MW-devices and circuits is the wavelength (de)multiplexer. Phased-array (PHASAR or AWG) demultiplexers have proven to be robust components which are particularly suitable for integration with other components. Integration with detectors in MW-receivers, with optical amplifiers in MW-lasers and with optical switches in MW-add-drop multiplexers has been reported. In the presentation an overview of integrated PHASAR-based devices and their performance and fabrication issues will be given and the prospects of Photonic Integration will be discussed.

BIOGRAPHY

Meint K. Smit was born in Vlissingen, the Netherlands, in 1951. He studied Electrical Engineering at the Delft University of Technology, gaining a masters degree (with honours) and a Ph.D. degree (with honours). In 1974 he started as a research scientist with the NIWARS (Netherlands Interdepartmental Working Group on Application of Remote Sensing Technology). Joined the Delft University of Technology in 1976 with responsibility for research in Microwave Remote Sensing and FM-CW radar development. Switched to optical communication in 1981 where he has set up facilities for development of silicon-based integrated optical devices. **He invented the phased-array wavelength demultiplexer** (PHASAR, AWG or WGR) and worked on multimode interference (MMI) couplers, optical switches, measurement and characterisation of electro-optical devices and development of Computer Aided Design Tools. Since 1986 his focus has broadened to InP based semiconductor devices. From 1991-1992 on leave at the Institute of Quantum Electronics, ETH Zurich, where he worked on development of a fast and compact polarisation independent optical switch. In 1997 he received an IEEE/LEOS Technical Award for the invention of the phased-array demultiplexer.

AMD Lab. Host: Yoshiaki Nakano
Refreshments will be provided.

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