

Infineon hosted IEEE chapter meeting

More than a hundred participants from Germany and nine further Western and Eastern European countries took part in the meeting of IEEE German joint IAS/PELS/IES chapter which was hosted on May 22/23 in the Regensburg facility of Infineon Technologies AG and chaired by Prof. Leo Lorenz.

Researchers from Infineon gave major contributions to the technical program: Dr. Miller presented a survey of most recent developments in the field of power semiconductors, such as trench IGBTs with fieldstop, high voltage compensation MOSFETs, low voltage MOSFETs with buried trench structures or silicon carbide (SiC) Schottky diodes. Dr. Mitlehner from SiCED explained technological challenges and approaches to build controllable switches using this high bandgap material: Development samples of a cascode, consisting of a SiC JFET and a low voltage Si MOSFET, have already successfully been implemented, constituting a low resistive 1500V switch with a MOSFET like control behaviour. These contributions related to power electronics were complemented by an overview about latest developments in the field of micro-controllers by Dr. V. Wendorff.

Dr. Phil Hower from Texas Instruments, IEEE fellow and distinguished lecturer, linked both subjects, deriving the safe operating area (SOA) of lateral DMOS transistors, which are widely used as output drivers of integrated circuits: Their SOA has been found to be limited by electrical and thermal mechanisms. Another indispensable component of power supplies and drives was addressed by Prof. Alan Jack from University of Newcastle upon Tyne: Iron powder is advantageously used as magnetic material for chokes in power electronic systems operated with high frequency, thus replacing laminations; in permanent magnet machines or actuators



(Above). For visiting Infineon's semiconductor manufacturing facilities at Regensburg, clean room clothing is necessary
Photo: Büttner

the material gives the opportunity to appropriately shape the magnetic parts, thus optimising performance or manufacturability.

The meetings of German joint IAS/PELS/IES chapter take place on a regular basis three times a year. All members of IEEE, of European Centre of Power Electronics

(ECPE) and guests are welcome; international participants may benefit from funding according to the conditions of European IEEE Chapter Support program. More detailed information about previous and upcoming meetings can be found at www.ewh.ieee.org/r8/germany/ias-pels.

International Rectifier launches die sales business

International Rectifier has announced the formation of a dedicated business group for power management semiconductors in die form.

The company will market its die products

under the International Rectifier brand name and continues to develop and expand its die sales support with technical performance and characterisation, testing options, sampling, mounting and bonding, ship-

ment options and application notes.

Die is available in a wide variety of carrier (shipment) options such as probed wafer, sawn wafer on film, waffle pack/chip tray and tape and reel.