

## DAAD project

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## **Embedded System Design**

OMEGA I-MAC: A Protocol Architecture for Heterogeneous high speed Home Networks

The talk will outline the current state of home networks and the problems involved with different communication technologies. Especially the use of wireless communication only results in problems both with respect to QoS and coverage. So the I-Mac approach was chosen within the FP7 project OMEGA. I-Mac unifies the network topology view and allows the simple configuration of heterogeneous networks with seamless handover between the different technologies. It has been implemented and tested within a complex demonstrator up to a speed of almost 1Gb/s. Within this talk the architecture and the different engines are shortly described. The demonstrator scenario will be shown as well as the measurements that describe expected behaviour in terms of additional latency for multihop.

**Rolf Kraemer** received the diploma and the Dr.-Ing. degrees from the computer science department of the RWTH-Aachen in Germany. He has worked for 15 years in research and development of communication and multi-media systems at Philips-Research in Hamburg and Aachen. Since 1998 he is Professor of Systems at the IHP in Frankfurt and TU-Cottbus. He leads the systems research department of the IHP where his research focus is on wireless Internet systems from application to systems on chip. He is co-founder of the startup-company lesswire AG.