

2007 ERCIM / DECOS Workshop on Dependable Embedded Systems
**“Dependable Smart Systems: Research, Industrial Applications, Co-operative
Systems, Standardization and Certification”**

Aug. 28th, 2007, Lübeck, Germany

at the 33rd EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA 2007) and
the 10th EUROMICRO Conference on Digital Systems Design (DSD 2007), Lübeck, Germany

ERCIM Working Group on “Dependable Embedded Systems” in co-operation with EUROMICRO and the
European funded Integrated Project **DECOS** (“Dependable Embedded Components and Systems”)

Important NOTE: The location is **NOT** the Euromicro Venue Hotel Mövenpick, but the

Innovationszentrum Lübeck (IZL), Breite Straße 6-8 (City Center)

the historic "Haus der Kaufmannschaft" ("House of the Merchants"). The IZL is a 15-20 minute walk from the
SEAA & DSD'07 venue (Mövenpick Hotel). Both venues are linked by several bus lines serving bus stops
"Holstentorplatz" and "Koberg". Due to traffic regulations, these lines are 1, 11, 21, and 31 from
"Holstentorplatz" to "Koberg" and lines 1, 11, 21, 30, 34, and 40 in the opposite direction (Single fare €2,05).

Final Programme

Introduction (9:00 – 9:30): A. Skavhaug, E. Schoitsch: Welcome – Euromicro, DECOS and ERCIM

Dependable Embedded Systems Theory and Research I (9:30-11:00)

Claire Burguiere, Christine Rochange (IRIT – CNRS, Toulouse, France) “On the Complexity of Modelling
Dynamic Branch Predictors when Computing Worst-Case Execution Times”

Bernhard Rumpler, Martin Schlager (TTTech, Vienna) „Segmentation and Conceptual Chunking in
Embedded Real-Time System Design”

András Balogh, András Pataricza, Balázs Polgár, György Csertán (Budapest University of Technology and
Economics) “Embedded System Design Support by Tool Integration”

Coffee break 11:00 – 11:30

Dependable Embedded Systems Theory and Research II (11:30-12:30)

S. Frenkel, A. Pechinkin, V. Chaplygin (RAS, Moscow), I. Levin (Tel-Aviv University, Israel) “A Mathematical
Tool for Support of Fault-tolerant Embedded Systems Design”

Åsmund Tjora, Amund Skavhaug (NTNU, Trondheim, Norway) “Run-time Distributions in Passively
Replicated Systems Using Timeout and Acceptance Fault Detection”

Lunch Break 12:30 – 13:30

Embedded Systems Validation and Certification (13:30 – 14:30)

Roland Wolfig (TU Vienna) "Parameters for Efficient Software Certification”

E. Althammer, E. Schoitsch (ARC), G. Sonneck (Tribun, Austria), H. Eriksson, J. Vinter (SP, Sweden)
“Support for Modular Certification of Safety-Critical Embedded Systems – the Generic Safety Case”

Smart Systems Applications I (Industry) (14:30 – 15:30)

Christoph Hoyer, Gerhard Chroust (University Linz, Austria) “Scenarios in Product Line Development for
Small- and Medium-Sized Enterprises”

Roman Bumerl-Lexa (ARC, Vienna) “Digital Signal Processing using Model-based Software Design”

Coffee Break (15:30 – 16:00)

Smart Systems Application II (Transportation) (16:00 – 17:00)

Reinhard Kloibhofer, E. Schoitsch (ARC, Vienna) „Watch-Over – Co-operative Smart Technologies to
Improve Road Safety for Vulnerable Road Users“

Lars Holstein (FAV Berlin) “COOPERS – Co-operative Systems for Intelligent Road Safety”

PANEL discussion: “Automotive Visions – Road Safety of the Future” (17:00 – 18:00)

Chairpersons: Erwin Schoitsch, Amund Skavhaug