

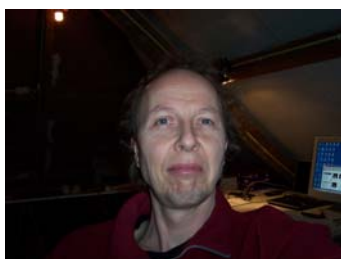
CONFERENCIA

A Spectrum-Based Approach to Software Fault Localization

Prof.dr.ir. A.J.C. van Gemund

Faculty of Electrical Engineering, Mathematics, and Computer Science
Delft University of Technology

Summary: Automated diagnosis techniques help to localize faults that are the root causes of discrepancies between expected and observed behaviour of systems. As such, these techniques are a natural companion to testing efforts, which aim at exposing such discrepancies. In software development, automated diagnosis can reduce the effort spent on manual debugging, which shortens the test-diagnose-repair cycle, and can hence be expected to lead to more reliable systems, and a shorter time-to-market. Outside the software development cycle, diagnosis results can also be used for maintenance and as the basis for (automated) recovery techniques. In this talk we outline the principles of fault diagnosis and specifically focus on fault diagnosis of software when modelling information is only minimal.



Arjan J.C. van Gemund received a BSc in Physics in 1981, an MSc degree (cum laude) in Computer Science in 1989, and a PhD (cum laude) in 1996, all from Delft University of Technology. In between, in 1981 he joined the R & D organization of a Dutch multinational company as an Embedded Systems Engineer. Between 1989 and 1992 he joined the Dutch TNO research organization as a Research Scientist specialized in the field of high-performance computing. Since 1992, he works at the Electrical Engineering, Mathematics, and Computer Science Faculty of the Delft University of Technology, formerly as an Associate Professor at the Electrical Engineering Dept., currently as Full Professor, heading the Embedded Software Lab. of the Computer Science Dept. His research interests are in the area of embedded software and parallel and distributed systems.

Seminario Alan M. Turing

Jueves, 19 de abril de 2007 17:00 pm