

When I joined the Computer Science faculty at RWTH Aachen University in November 2003 I felt like moving forward and backward at the same time. Geographically I moved back to the places and the region where I grew up and which I left more than twenty years ago (after finishing my social service in an old peoples'home on Heinrichsallee which now no longer exists). In terms of scientific disciplines, however, I made a big leap forward into a community which I did not belong to originally but which fascinated and attracted me since many years.

By education I am an engineer. I studied Electrical Engineering in Karlsruhe and specialised in control theory. Already during my Diploma thesis at the Fraunhofer Institute for Information and Data Processing in 1990, I became interested in Computer Science topics, at that time formal models for discrete controllers. This interest continued when I moved to the Chemical Engineering Department at the University of Dortmund where I received my PhD in 1995 and stayed as a senior researcher for another five years. The work of the latter years finally lead to my habilitation in control and safety engineering which I obtained in 2003. In Dortmund I was working on formal modelling and verification of control software. Due to the interdisciplinary character of this research, there was a need (and the opportunity) to collaborate with many computer scientists worldwide. These were great experiences which strengthened my fascination by problems on the boundary between engineering and computer science.

I remained on that boundary while I was with the Corporate Research and Advanced Engineering of the Robert Bosch GmbH in Frankfurt/Main from May 2000 to November 2003. I was responsible for a group that provided basic support for new software technologies and engineering methodologies to be transferred into the business units. Our main topics were software architecture evaluation, software product lines, and dependability analysis. During this time I got in touch with the great challenges created by the radical shift from mechanical or electronic to software-intensive systems in the automotive industry. And I learned how important (and still difficult) it is for engineers and computer scientists to communicate and collaborate efficiently, if we want to succeed.

Since November 2003 I am trying to contribute to these challenges from an academic position. I understand my role in the faculty as a bridge builder between the computer science community and the potential appliers of computer science methods in the engineering disciplines. For this task, I believe, the RWTH is a place with plenty of opportunities. At the time of writing these lines, our group is still in the process of building up the infrastructure and taking first steps in teaching and research. The current status is sketched in the description of Informatik XI in the main part of this report.