



TECHNISCHE
UNIVERSITÄT
DARMSTADT

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Dear Madam/Sir,
dear project partner,
dear friend of our research institutes,
dear former and dear actually affiliated member to our university,

2009 has been a very exciting and successful year for me and my team. With the New Year rapidly approaching, I would like to take this opportunity to reflect upon this year's highlights in diverse fields such as teaching, research and management of scientific activities, which, as the chair of the Multimedia Communications Lab (KOM) and the htcc, I have the great pleasure of overseeing.

I am proud and very pleased to remark that this year five of our doctoral (Ph.D) candidates, Dr.-Ing. Julian Eckert, Dr.-Ing. Aleksandra Kovačević, Dr.-Ing. Nicolas Repp, Dr.-Ing. Johannes Schmitt and Dr.-Ing. Lars Turczyk have completed their doctorates with great success. After successfully receiving his postdoctoral lecturing qualification (*Habilitation* in German), Professor Dr.-Ing. Markus Fidler has joined the Leibniz University of Hanover as a full professor. Professor Dr.-Ing. Matthias Hollick has returned to the TU Darmstadt following a professorship at the Universidad Carlos III de Madrid. He currently holds the newly established associate professorship of "*Secure mobile networks*" which focuses on fundamental research in security in networks. It is supported among others by the Hessian LOEWE initiative under the umbrella of the CaSED (security) Center in Darmstadt.

Mrs. Dipl.-Ing. Veselina Dimitrova's master thesis, "*Joint Optimization of Centralized and Distributed Scheduling in 802.16 WiMAX Networks*" and Mr Leonhard Nobach's bachelor thesis, "*Assessing Quality of Peer-to-Peer Search Overlays*", were selected out of ca. 70 as the most excellent final student theses in multimedia communications from the KOM-Fördergesellschaft eV.

Julius Rückert received the *Datenlotsen* prize endowed with 2500 € for his excellent bachelor thesis titled "*Analysis of self optimisation of Peer-to-Peer Systems*". Furthermore, the masters thesis of Christian Groß, M.Sc titled "*Development and Evaluation of a Framework for Monitoring Peer-to-Peer Systems*", and the diploma thesis of Dipl.-Inf. Dominik Stingl titled "*Development of a Self-Optimizing Life Cycle Framework for Structured Peer-to-Peer Systems*", were selected as 2 of the 3 the most excellent theses for awards by the Darmstädter Stiftung für Technologietransfer.

We have successfully completed numerous demanding projects, new projects were acquired and promising research areas have been further developed and established in the scientific community. With "*docendo*", an innovative user friendly web-based authoring platform for multimedia self-study, has been made available to the general public as open source software. It bears the fruit of many years of development by the htcc and KOM staff. Since late 2008, the software is in use at the ETH Zürich. It has already been used for many years in most of the Hessian universities. I am happy to announce that after three years of intensive and successful research, the funding by the DFG for the research group "*QuaP2P - Improvement of the Quality of Peer-to-Peer Systems*" has been renewed and broadened for a further three years.

Since late 2008, KOM has expanded its horizons of research and now encompasses the research area "*Serious Gaming*", so that we now have the opportunity to help shape this extremely promising area of research. Together with key companies and research institutions we work in the EU research project "*80Days*" in the development of innovative digital learning games. We are also involved in the BMBF-funded joint project "*Motivotion 60+*" to improve the fitness of the elderly supported by networked IT systems. Additionally we have further interesting projects in the field such as the Hessian project "*Serious Games at University*" and the LOEWE model project "*StoryTec*".

Since early 2009, we are working in the "*Allianz Digitaler Warenfluss ADiWa*" together with leading companies and research institutions to develop technologies which will equip the legis-

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Your Message

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tics industry for the increasing environmental and economic challenges. Here we intend to develop tools which will enable the logistics industry to benefit from the envisioned “Internet of Things”. Additional projects launched this year with participation of KOM and htc are “VirtuRama” and “Green Mobility”. In September, State Secretary Andreas Storm personally handed over two positive grant decisions and used his visit here for interesting discussions with young researchers.

The scientific results of our work have been presented on a number of exhibitions, excellent scientific conferences and workshops around the world. At CeBIT we were doubly represented: Our peer-to-peer experts here presented the community platform “LifeSocial.KOM” based on peer-to-peer technology which is not only more cost-effective than previously known solutions, but also guarantees better protection of user-specific data. Also present was the web-based authoring platform for multimedia self-study developed within the project “Kompetenznetz E-Learning Hessen” that is publically available and is used by over 300 teachers. As an exhibitor, we were also represented at the “E-Learning 2009” in Berlin and at the Innovation Fair, “Innovative 2009” at Darmstadt.

My lab was also active as organizer for several scientific events. Under the motto “Science meets Business“, we organized the “5th Darmstadt GameDays”. Leading experts from industry and science came together to showcase the latest developments in the field of playful methods and concepts in the socially relevant theme of education, health and sport. We also successfully led a number of different workshops: “Comm’n’Sense.KOM” on wireless sensor networks, the EU Network of Excellence sponsored CONTENT industry workshop on “Media Distribution in the Internet” together with Lancaster University, the ISPRAT workshop on “E-participation” and the KiVS-Workshop “Service-oriented Computing”. As in previous years we were involved in the planning and design of the workshop, “E-learning 2.0”, which this year took place in its third edition at the DeLFI 2009 in Berlin. Within the scope of “Informatik 2009” in Lübeck, we successfully chaired a workshop on “IT Governance in Distributed Systems”. The workshop “Software and Services of the Future – New opportunities Provided by Service-oriented Architectures und Applications 2009” organized by us in collaboration with the Hessen Agentur found an excellent resonance.

Through visits by guest researchers and research stays by our staff abroad, we have further expanded and intensified our substantive cooperations at the international level in 2009. In the summer, Dr. Salil Kanhere from the University of New South Wales visited us in Darmstadt, and soon a couple of my staff will be visiting his lab in Sydney for some time. Dipl. Inf. André König visited the University of Illinois at Urbana-Champaign, and was hosted there by the institute of Prof. Klara Nahrstedt. This cooperation will be further strengthened by Prof. Nahrstedt being at KOM as a Visiting Scientist for several months at a stretch in 2010. Our international recognition is reflected by the fact that ACM, the world’s largest scientific society for computer science and information technology, has appointed me as the new Editor-in-Chief of the prestigious journal “ACM Transactions on Multimedia Computing, Communications, and Applications” TOMCCAP.

Our internal highlight of 2009 – and hence I saved it for the last- was certainly the shifting of my lab from the Merckstr. 25 to our new location, Rundeturmstr. 10. This has cost us several months of planning, organization, and a whole lot of sweat. Finally, at the end of November, it was time - we were able to move into the new premises. In our new building we now finally have more space, also for our students, and a technically innovative and pleasing surrounding for our research work. Here we can finally implement a long-cherished idea: our “Present-IT” sectors, which are areas where we present our wide range of research to visitors in a much more livelier and palatable form. We plan the first public presentation of our work in our new environment in April 2010.

And what will happen in the years to come? A lot, let me just mention one single point: Over a longer time we have been strategically working to strengthen our international scientific cooperations – we expect the next 2 years to show first key results.

Although -and especially because- we in our daily work are involved in the development of seamless multimedia communications, we value personal interaction a lot, hence this letter at exactly this time of the year.

Merry Christmas and a peaceful, happy, healthy and successful 2010 wish



Sincerely yours,
Best regards,

Ralf Steinmetz

Ralf Steinmetz,
Professor (Dr.-Ing. habil.)

Fellow of the IEEE and Fellow of the ACM

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Chairman of the Board - htc - Hessian Telemedia Technology CompetenceCenter – Germany