

To mark the end of the year I would like to send you season's greetings and take the opportunity to inform you about some of our work over the past year.

Prof. Dr.-Ing. Ralf Steinmetz



Personally I am very happy about a special distinction: the Universidad Carlos III de Madrid awarded me, a 'Chair of Excellence' sponsored by 'Banco Santander'. This enables me to visit this excellent Spanish university and the IMDEA Networks Institute to conduct research on the foundations of future networking next year. Also, we were very pleased to host a special visitor from Berkeley: the renowned scientist Ruzena Bajcsy came to Darmstadt this summer to deliver a lecture and have in-depth discussions. This visit has been part of the DFG collaborative research center MAKI and our research towards 'Future Internet'. Ruzena is a big role model for young women who are interested in engineering and computer science programs. The "Bajcsy Lectures on Communications" series at TU Darmstadt specifically supports this idea and offers leading female scientists a platform to share their knowledge.

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In our 'Future Internet' research, we address adaptivity in the context of overlay networks and interconnected sensors, innovative learning mechanisms, as well as serious games. "Auto-mobility of the future" is a new topic established this year researching how new Internet technologies can support modern-day traffic as integral part of next generation automotive vehicles. It looks into what kind of new challenges result from this application case for the Future Internet. For example, we research how new system architectures will evolve allowing for new driver-assisted systems using multiple sensors and smartphones, or how one could hold multiple continuous Internet connections for moving vehicles. In order to answer these questions, we have been able to establish a close collaboration with partners from the automotive industry. A different aspect of mobility is addressed in a new project where we directly support on-site trainees in the management of work orders by providing the required information and learning materials while they are working away from their base.

Further, a new LOEWE project in 2015 is concerned with infrastructure-less communications in large scale disaster scenarios. In the LOEWE project 'Always Online', we combine our knowledge of sensor networks and mobile devices to conceive an overall networked system where smartphones learn to recognize the context of a situation, and use this knowledge to regulate the flow of messages and calls. Such an intelligent phone could protect our valuable "family- or me-time" from intrusive business related communications.

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A special recognition we received is the “Sonderpreis der bayerischen Wirtschaft” (Special award of the Bavarian industry) carrying € 10,000, which is part of the German computer games award. It was conferred on Viktor Wendel and Stefan Göbel from our lab. This price acknowledges the contribution the serious game “UrCity” makes to encourage more civic participation. It directly addresses teenagers who through this game can get involved in the city planning process. The game allows to intuitively create objects (such as playgrounds or skate parks), which the user would like to see for instance in Darmstadt using a virtual 3D-building toolset.

Furthermore, in the year 2014 the interdisciplinary technical group “Entertainment Computing” of the Informatics society (GI) was founded with. Stefan Göbel was elected to be a co-spokeperson of the group. Christoph Rensing was elected as the spokesperson of the E-learning technical group of the GI this year. I personally have been concluding my tenure as vice-chairman of VDE-ITG this year. There were also some highlights with respect to conferences: Christoph Rensing was the co-chair at the international E-learning conference EC-TEL. Stefan Göbel organized the 10th Darmstadt GameDays and the ACM International Workshop on Serious Games as part of ACM Multimedia 2014. I was acting as general co-chair at this year’s ACM Multimedia conference.

I also would like to acknowledge the excellent achievements of the KOM researchers with more than 75 publications this year including a best poster/demo award (being part of a very successful team in MAKI). The following researchers have successfully passed their PhD vivas: Johannes Konert (end of 2013), Christian Groß, Mojisola Erdt, and Sebastian Zöller. Furthermore, following Sebastian Schmidt, Frank Englert and Ronny Hans, our researchers Tim Dutz and Stefan Wilk (under Wolfgang Effelsberg) have become members of the “Software Campus” program this year. The BMBF initiated “Software Campus” facilitates the direct entry of IT PhD graduates into executive positions in industrial companies. A special trainee program to achieve this was developed by experts from major corporate players such as Deutsche Telekom, SAP and Software AG. Additionally, each participant is in charge of a real-world IT project in access of €100,000 carried out in cooperation with the sponsoring company.

We have come up with something new for you on the Internet. On our blog, <http://blog.multimedia-communications.net> we regularly publish articles on topics related to our research areas as well as new projects and emerging ideas. Our researchers personally write about their everyday-research they are closely engaged with. We also offer an e-mail newsletter service informing about our most important new topics on a quarterly basis. A complete overview of our research work, including publications and research talks, is available, as usual, on www.kom.tu-darmstadt.de. We would be glad to receive any feedback or questions related to our work. We are reachable via e-mail, telephone or in person, are always open to new ideas and topics, and welcome all feedback!

I wish you, also on behalf of my colleagues a Merry Christmas and a successful and prosperous 2015!

