



2019 was a year of successful research and teaching. I would like to review some of the highlights of this year.

The Best Student Paper Award of the International Conference on Information Systems for Crisis Response and Management (ISCRAM) on "Simulation Platform for Unmanned Aerial Systems in Emergency Ad Hoc Networking" went to Julian Zobel and Patrick Lieser. Florian Jomrich received the Best Paper Award for his paper "Lane Accurate Detection of Map Changes based on Low Cost Smartphone Data" at the International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS). Jonas Höchst, Artur Sterz (both from the Collaborative Research Centre (CRC) MAKI) as well as our former employees Alexander Frömmgen and Denny Stohr received the Best Paper Award of the IEEE Conference on Local Computer Networks (LCN) for the paper "Learning Wi-Fi Connection Loss Predictions for Seamless Vertical Handovers Using Multipath TCP". Congratulations to the winners! I myself was asked to join as a member the Academia Europaea, and I joined the AE. Its aim is to promote a broad understanding of the importance of scientific topics.

Our newly graduated PhDs can be particularly pleased: Dres. Rhaban Hark, Florian Jomrich, Patrick Lieser, Tobias Meuser, Nils Richerzhagen, Steffen Schnitzer and Laila Shoukry. Boris Koldehofe and Amr Rizk successfully habilitated. Boris Koldehofe received several callings and will take up a professorship for computer networks at Groningen University on February 1st, 2020. Amr Rizk is now professor at the University of Ulm. We congratulate Zeynep Tuncer, who has been appointed professor at the Wilhelm Büchner University of Applied Sciences following her appointment as Managing Director of the MAKI CRC

The service for science is important to me. During 2019 I was Vice Dean of the Department of Electrical Engineering and Information Technology. Since January 2018 I have been the scientific coordinator of the cooperation between the TU Darmstadt and the Digital City Darmstadt. The Hessian Minister for Digital Strategy and Development Kristina Sinemus, together with TU President Tanja Brühl, announced the establishment of the Hessian Competence Center related to Responsible Digitization. I played a major role in its initiation and am proud of its conceptual orientation: placing human beings with and their needs at the center of digitization.

For the DFG CRC MAKI - Multi-Mechanisms-Adaptation for the Future Internet – this year was marked by the intensive development of new research topics for the third funding period and the preparation of the corresponding application. During the course of awarding the Robert Piloty Prize of the TU Darmstadt to Klara Nahrstedt, we were also able to welcome her mother, the eponym of our Ruzena Bajcsy Lectures, to guest lectures explicitly addressed to female students. At the beginning of the year, the MAKI scientific workshop on self-organizing systems welcomed with about 120 participants. The following professors operated as Mercator Fellows of MAKI at the TU Darmstadt this year:

Prof. Dr.-Ing. Ralf Steinmetz



Multimedia  
Communications Lab  
(KOM)

Department of  
Electrical Engineering and Information Technology  
Department of Computer Science  
(Adjunct Professor)

Rundeturmstr. 10  
64283 Darmstadt  
Germany

Tel. +49 6151 16 - 29101  
Tel. +49 6151 16 - 29100 (secretary)  
Fax +49 6151 16 - 29109

Ralf.Steinmetz@KOM.tu-darmstadt.de  
www.kom.tu-darmstadt.de  
www.multimedia-communications.net

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Jörg Liebeherr (Univ. Toronto), Carsten Griwodz (Univ. Oslo), Florin Ciucu (Univ. of Warwick), Antonio Fernández Anta (IMDEA Networks, Madrid), Michael Zink (UMass, Amherst), Jörg Widmer (IMDEA Networks, Madrid), Ioannis Stavrakakis (Univ. of Athens) and Francesco Gringoli (Univ. of Brescia). Guest scientist Christian Oberli (Pontificia Univ. Católica, Chile) collaborates with us in the research field of adaptive communication for critical infrastructures and environmental monitoring. Of course, the scientific exchange went in both directions: Tobias Meuser spent a three-month research stay at the IMDEA Networks Institute in Madrid.

We successfully applied for new projects in 2019: The LOEWE Centre emergenCITY will start in 2020 being responsible for resilient digital cities. emergenCITY will create robust infrastructures that guarantee help during and after a crisis, thus enabling a return to normality as quickly as possible. digLL - Trusted Learning Analytics started in 2019. Together with the Goethe University Frankfurt, the aim is to establish Learning Analytics at Hessian universities from the point of view of trust. "Staying digital for my future" is a new project of htcc e.V., together with the city of Darmstadt and three independent educational institutions in Darmstadt. The aim is to develop media skills among the disadvantaged, especially fugitives. The htcc e.V. contributes to the technical implementation of the learning method with an app for self-directed learning. The DigiGame is being developed in cooperation with AVM Rüsselsheim. With this serious game, contents of the vocational training are mediated playfully. LOEWE's Nature4.0 project was launched at the beginning of the year. Under the guidance of the Philipps-University Marburg we are developing special sensor networks for a comprehensive observation of our ecosystems - this enables new forecasts and recommendations for nature conservation.

Our ongoing projects are also bearing fruit. The project Knowledge and Technology Transfer Serious Games has attracted research, politics and potential users with numerous workshops and events. The SG4Mobility project was successfully completed. The aim was to change mobility behavior to be greener utilizing an app in a playful way. In the KeaP digital project, which was successfully completed this year, we are adding digitally supported forms of learning to the tried and tested mentor model. The Green Mobility Solutions start-up, which emerged from our cooperation with the TU Directorate "Building Management & Technical Operations", further expanded its portfolio of online parking space booking in the second year since it was founded. The TU parking spaces are now booked by many departments via the Book-n-Park portal. The young company is also involved in the Hessian "Reallabor" of the BMW's energy transition under the auspices of the TU Darmstadt.

The task of the E-Finance Lab, founded in 2002, is to help shape the digital future of finance. As a founding member, we represented the TU Darmstadt and contributed our technical expertise. The advantages of such a close cooperation, as it is possible with the Rhine-Main Universities RMU nowadays, have been apparent for many years. The E-Finance Lab has now been given a new contemporary focus as the Data Science Institute. Carsten Binnig assumes my role as technical contact at the TU Darmstadt.

Last but not least, a pictorial greeting from our annual retreat in Kleinwalsertal.



If you would like to stay in contact with us throughout the year, you may find current scientific publications and further information at [www.kom.tu-darmstadt.de](http://www.kom.tu-darmstadt.de) and [blog.multimedia-communications.net](http://blog.multimedia-communications.net) as well as on Twitter: [https://twitter.com/kom\\_tudarmstadt](https://twitter.com/kom_tudarmstadt)

In addition, we are personally available on site, via e-mail, WhatsApp, Telegram or telephone.

I wish you a Merry Christmas and a Happy New Year!

Ralf Steinmetz

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