

Autonomous vehicles and radar – fit for the future

13:00-15:00, November 11th, 2019 at King Mongkut's University of Technology
North Bangkok, Bangsue, Bangkok, Thailand, TGS Building, 3rd Floor

Summary

Radars are used in vehicles nowadays for realizing various driver assistance systems and will even become more important with the promise of autonomous driving. The strengths of these sensors lie in the insensitivity to bad weather conditions and the ability to measure velocity and distance of road users with high accuracy. However, these properties are not sufficient if they shall be used in autonomous vehicles soon: How can we ensure that radars will perceive more of their environment? How can we make them more reliable? How do we get them fit for the future?

In his presentation, Thomas Dallmann will explain how current automotive radars work, how they can be improved and tested, and which developments lie ahead of them.

Biography



Thomas Dallmann (S'14) received the Dipl.-Ing. degree in electrical engineering from the RWTH Aachen University, Germany in 2010. In 2017 he finished his Ph.D. at the Institute of High Frequency Technology IHF, RWTH Aachen University. The title of his thesis is "Polarimetric Radar Cross-Section Imaging". Since 2016 he leads the Research Group Aachen of the Fraunhofer-Institute for High Frequency Physics and Radar Techniques FHR, Germany. There he is involved with the development of new sensor concepts and validation approaches for automotive radar.

About Fraunhofer FHR

The Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR develops concepts, methods and systems for electromagnetic sensor technology, particularly radars, implementing modern methods of signal processing and innovative technologies, ranging from microwaves to the lower end of the terahertz band. With a budget of €32.5 million in 2015 and more than 300 employees, Fraunhofer FHR is one of the largest radar research institutes in Europe.