

Invitation to the Oral Examination – Department CE

For the occasion of his examination for a Doctoral Degree,

Mr. Christian Arendt, M.Sc.

will present his dissertation entitled

An Information-Theoretic Perspective on Reliable Communication in Future

Vehicular Connectivity Systems

on **08.11.2024** at **10:00 h**

Attendance to the presentation is open to the public.

The presentation will be in English.

The candidate, all members of the Examination Committee, and authorized examiners of the TUM School of CIT are invited to the presentation and subsequent oral examination.

The presentation and subsequent examination will take place via **Zoom** under the following link:

<https://tum-conf.zoom-x.de/j/69146237287?pwd=vllbtm6BVYkpADvhdoOFQVKoQ64PLs.1>

Meeting-ID: 691 4623 7287

Kenncode: 166968

Examination committee:

Chair: **Prof. Dr.-Ing. Wolfgang Kellerer**

First Examiner: **Prof. Dr.-Ing. Holger Boche**

Second Examiner: **Prof. Aydin Sezgin, Ruhr-Universität Bochum**

Munich, the **8th** of October **2024**

Abstract: The vision of intelligent mobility incorporates the Information exchange of vehicles amongst themselves and traffic infrastructure via wireless connectivity technologies. Traffic safety applications rely on the transferred data placing high demands on the reliability of the Information transmission process. This thesis focuses on the information-theoretic investigation of reliability impairments in vehicular connectivity systems and presents techniques for increasing the trustworthiness of communication-aided future mobility.