

## **Invitation to the Oral Examination – Department CE**

For the occasion of his examination for a Doctoral Degree,

**Hadi Askaripoor**

will present his dissertation entitled

***A Framework to Design and Synthesize Vehicle E/E Architecture***

on **11.09.2024 at 17:00 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 online via zoom:

**Meeting-ID 687 0464 7135**

**Link:**

<https://tum-conf.zoom-x.de/j/68704647135?pwd=slx9htewWwCmSyaJeHUxpGcvNT3I14.1>

**in room 01.07.023.**

**Examination committee:**

Chair: **Prof. Jörg Ott**

First Examiner: **Prof. Alois Knoll**

Second Examiner: **Prof. Ali Mosleh, University of California (UCLA),**

Third Examiner:

Garching, the **17. of July 2024**

**Mailing list:**

Members of the examination committee

Doctoral candidate

**Abstract:**

Recent vehicle E/E architecture advancements, driven by increased computational needs for safety-critical applications, adopt centralized architectures with high-performance computing units. Configuring these architectures presents complex and time-consuming challenges. This thesis proposes a novel model-based framework that automates the synthesis of vehicle E/E architectures supporting resource allocation, message routing, and time-triggered scheduling while considering various requirements and optimization goals. Furthermore, it introduces an innovative approach to identifying design errors in complex E/E models.