



Kolloquium zur Masterarbeit

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„Collaborative Lifting Drone Architecture”

In recent years, due to the advantages of small size, strong maneuverability and easy operation of UAV, more and more industries are using UAV to carry out corresponding operations. This makes UAV system design and development become one of the major topics in the IT industry. However, due to the necessity of laboratory hardware conditions, many excellent ideas cannot be carried out feasibility analysis and optimized implementation in the short term. Model-driven architecture design provide the solution. With the flexibility and extensibility of AADL modeling, available hardware models can be added at any time and unwanted component models can be removed. Tune optimization and better system feasibility analysis can be carried out anytime and anywhere. Model-driven architecture can optimize the performance of the developed system without consuming any resources. This paper aims to develop a new UAV system architecture based on the model driven concept. The collaborative lifting drone architecture was modelled using AADL, and the OSATE tool was used to define the excuses between the subsystems. According to the specific requirements of UAV navigation system, reasonable AADL components are used in each system modeling, and AADL system data flow is used to analyze the system delay and reliability.

Montag, 22.04.2021, 16:00 Uhr

Videokonferenz: BBB <https://webconf.tu-clausthal.de/b/sve-42t-tcr>