Maximilian Kloock, M.Sc. RWTH

Member of the Cyber-physical Mobility Group

Contact

Research Assistant

Tel. +49 241 80 21186
Fax +49 241 80 22150

Email: kloock[at]embedded[dot]rwth-aachen[dot]de

Address: Ahornstr. 55, 52074 Aachen, Germany
Room: 2224

Research

My research in the Cyber-physical Mobility Group focuses on the interdisciplinary intersection of software engineering, control engineering, optimization, and communications. Currently, I work in the project AutoKnigge and in the Cyber-Physical Mobility Lab.

Theses

Within the scope of my research activities, topics for final theses arise continuously. If you are interested, please contact me by e-mail or personally in my office.

Open Student Positions

Initiative applications are welcome. Please include in your application: transcript of records (Bachelor and possibly Master), short CV, and certificates.
Publikationen

[KKM+19]


Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles

Bibtex entry :

@inproceedings { KKM+19,
  author = { Kloock, Maximilian and Kragl, Ludwig and Maczijewski, Janis
             and Alrifaee, Bassam and Kowalewski, Stefan },
  title = { Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles },
  booktitle = { 2019 IEEE Intelligent Vehicles Symposium (IV) : [Proceedings] },
  publisher = { IEEE },
  pages = { 1620-1625 },
  year = { 2019 },
  address = { [Piscataway, NJ] },
  organization = { 2019 IEEE Intelligent Vehicles Symposium (IV),
                  Paris (France), 2019-06-09 - 2019-06-12 },
  doi = { 10.1109/IVS.2019.8813980 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-08197 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/766610 },
}

[KSB+19]


Networked Model Predictive Vehicle Race Control

Bibtex entry :

@inproceedings { KSB+19,
author = { Kloock, Maximilian Martin and Scheffe, Patrick and Botz, Lukas and Maczijewski, Janis and Alrifaee, Bassam and Kowalewski, Stefan },
title = { Networked Model Predictive Vehicle Race Control },
booktitle = { 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings] },
publisher = { IEEE },
pages = { 1552-1557 },
year = { 2019 },
doi = { 10.1109/ITSC.2019.8917222 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2019-11241 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/773727 },

[KSM+19]
PDFBIB

Distributed Model Predictive Intersection Control of Multiple Vehicles

Bibtex entry :

@inproceedings { KSM+19,
author = { Kloock, Maximilian Martin and Scheffe, Patrick and Marquardt, Sascha and Maczijewski, Janis and Alrifaee, Bassam and Kowalewski, Stefan },
title = { Distributed Model Predictive Intersection Control of Multiple Vehicles },
booktitle = { 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings] },
publisher = { IEEE },
pages = { 8917117, 1735-1740 },
year = { 2019 },
adress = { Piscataway, NJ },
doi = { 10.1109/ITSC.2019.8917117 },
typ = { PUB:(DE-HGF)7 },
}

**Verification of Cooperative Vehicle Behavior using Temporal Logic**

Bibtex entry:

```latex
@article { VKR+19,
    author = { V"olker, Marcus and Kloock, Maximilian and Rabanus, Leon and Alrifaee, Bassam and Kowalewski, Stefan },
    title = { Verification of Cooperative Vehicle Behavior using Temporal Logic },
    journal = { IFAC-PapersOnLine },
    publisher = { Elsevier },
    pages = { 99-104 },
    volume = { 52 },
    number = { 8 },
    year = { 2019 },
    address = { Frankfurt ; M"unchen [u.a.] },
    issn = { 2405-8963 },
    organization = { 10th IFAC Symposium on Intelligent Autonomous Vehicles, Gdansk (Poland), 2019-07-03 - 2019-07-05 },
    doi = { 10.1016/j.ifacol.2019.08.055 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-2019-08318 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/766778 },
}```