



Inter-Vehicular Communication From Edge Support to Vulnerable Road Users II

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Motivation

- With this latest installment of the “**Inter-Vehicular Communication**”- Dagstuhl Seminar series, we intend to shift the focus from basic networking principles to open challenges in **edge computing** support and, as a novel aspect, on how to integrate so called **vulnerable road users** (VRU) into the picture. Edge computing is currently becoming one of the core building blocks of cellular networks, including 5G, and it is necessary to study how to integrate ICT components of moving systems. The trade-offs of computation distribution, system aspects, and the impact on end-to-end latency are still unanswered. Also, vehicular networking and cooperative driving focuses almost exclusively on cars but leaves out communication and coordination with, for example, pedestrians and bicyclists. For example, many of the existing communication solutions for this scenario were designed without having battery constraints in mind. In the meantime, some early research has been initiated on this topic and initial projects report very interesting results on safety features for VRUs. Building upon the great success of the previous Dagstuhl Seminars, we aim to again bring together experts from all these fields from both academia and industry.

Dagstuhl Seminars

- By invitation only
- Not a conference (no submissions, no papers)
- Keynotes (four three), a few talks
 - Book of abstracts!
- Discussions (a lot, any time, in the meeting room, doing sports, in the wine cellar)
 - Working groups (dynamic, periodic reporting)
 - Notetakers!
- Collaborative report
 - Report collector!

Schedule, Dec 19, 2022

- 9.00-10: Introductions
- 10-10.15: Coffee
- 10.15-10.45: Keynote 1: Joerg Ott, Vehicles and "the Edge": Random thoughts and no so random perspectives
- 10.45-11: discuss the breakout topics
- 11-12.15: breakout 1 (4 topics)
- Lunch 12:15-1.1:
- 1.15-1.45: Keynote 2: Claudio Casetti, Who protects the unprotected? ITS services for Vulnerable Road Users
- 1.45-2.45: Continue breakout 1
- 2.45-3:00: Coffee
- 3-3.45: Breakout 1 reports
- 3.45-4: discuss breakout 2 topics
- 4:00-6:00: Breakout 2 (4 topics)
- 6:00: Dinner

Schedule, Dec 20, 2022

- 9-9.45: Breakout 2 reports
- 9.45-10.15: Keynote 3: Gürkan Solmaz, Enabling data spaces: Existing developments and challenges
- 10.15-10.30: coffee
- 10.30-11.00: discuss breakout topics
- 11.00-12.15: Breakout 3
- 12.15-1.15: lunch
- 1.15-2.30: Breakout 3 reports
- 2.30-3:00: ~~Keynote 4: Danijela Cabric~~
- 2.45-3:00: Coffee
- 3.00-4.00: talks from open call
- 4:00-5:15: discuss breakout 4 topics
- 5:00-6:00: breakout 4
- 6:00: Dinner

Schedule, Dec 21, 2022

- 9:00-10:00: Breakout 4 Reports
- 10.00-10.15: Coffee
- 10.15-12.15: Final discussion, report writing
- 12.15: Lunch

(Initial) Discussion Groups / Breakout Topics

- V2V vs V2C2V (moderator: Onur Altintas)
- V2V for VRU (moderator: Gunnar Karlsson)
- Edge Computing (moderator: Falko Dressler)
- Distributed Sensing and Data Analytics (moderator: Ana Aguiar)