Hands-On Cyber-Physical Networking
BarCamp @ SPP1914 Winter-School in Arosa

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Intro

Questions

- Can you build a Cyber-Physical Network (CPN) with a box of electronics and some freely available software tools?
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Goal: Build a MVCPN (minimal viable CPN).
Starting Point
## Agenda

### Tasks

- Instrument physical platform (robot car with camera, ultrasonic sensors).
- Use the RNA presented in Aachen and a Raspi3 equivalent to interface the physical systems and represent cloud/edge computing platforms.
- Setup a wireless network infrastructure to couple the embedded systems.
- Develop control methods for driving along a line and/or within platoons.
- Optimize the stack to get nice visual and numerical quality of control!
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#### Long-Term Goal (after the BarCamp)

- Publish the...
  - challenges we faced,
  - experiences we gained,
  - results we acquired...
- ... as a paper (e.g. on arXiv).
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