Technology
Arts Sciences
TH Köln

Technische Hochschule Köln
Fakultät für Informations-, Medien und
Elektrotechnik

Forschungsgruppe Datennetze
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Lab Project in DN.Lab

Subject: Evaluation of 5G Open RAN simulation environments

Short description:
Open RAN is a special variant of a 5G Radio Access Network (RAN), which should allow to implement a 5G RAN system across vendors. The goal is to evaluate available open source Open RAN environments and prototype containerized implementations.

Reading:
U. Trick: 5G – Eine Einführung in die Mobilfunknetze der 5. Generation, DeGryter 2020
C. Cox: An Introduction to 5G: The New Radio, 5G Network and Beyond, Wiley 2020
O-RAN Alliance: O-RAN Software, https://www.o-ran.org/software
References on the Web

Options for students:
- **Bachelor thesis (BaTIN,BaETNT).**
  - Prototype implementation of a Docker solution based on O-RAN specs.
- **Research Project (MaCSN), Research Project (MaTIN).**
  - Research, evaluation of alternative implementation solutions (O-RAN and non-O-RAN
  - Selection and prototype implementation of the most suitable solution.

Starting: from October 2022 or later

Interested students please contact Andreas Grebe
Date: 19.9.2022