

Roland Bless – Research Interests

- Assistant professor @ Institute of Telematics (Group of Martina Zitterbart), CS, [Karlsruhe Institute of Technology \(KIT\)](#)
- **Research background:** Quality-of-Service, QoS Management and Control, Congestion Control, Routing, Applied Network Security
- **IETF/IRTF:** DiffServ (Lower Effort), NSIS, P2PSIP, RRG, TSVWG, ANIMA, RTGWG, NMRG, PANRG
- **Current research interests:**
 - Autonomous Network Management and Control for 6G networks (Open6GHub, 6G-ANNA)
 - Routing
 - Congestion Control
 - Energy Packet-based Grid
 - Quantum Communications



Karate-Do



Roland Bless – Research Questions

■ Viewpoint:

- need more **autonomic operations** for increasingly complex communication networks
- need a **resilient foundation** for controllability (**zero-touch** → no dependencies)

■ Research Questions:

- What is a minimal set of basic control plane functionality?
 - Simplification + Flexibility (easy software updates, CI/CD)
- Contradiction: Zero-touch + Security?
- Enabler for energy-awareness and energy savings?
- Can it facilitate Internet deployment (Internet access for all)?
- Interactions between multi-path routing and multi-path transport?