Sing Channel Tree Algorithm for TDMA in Open WSN for 5G networks

Tree Resolution Algorithms (TRA) have been used widely to resolve collisions in literature. Allocation of further slots in parallel channels can guarantee reduced worst case delays in a TRA. However, the number of parallel channels is limited thus a traffic analysis of how much traffic multi-channel (MC) TRA has to be conducted.

In this work a distributed MC-TRA will be modelled, simulated and implemented. A generic approach is required for the model while the simulation and implementation will be constrained due to time limits.

Scope of the work:

- SotA on MC-TRA
- Modelling of MC-TRA
- Simulation on Matlab/Python and iterations
- Implementation in OpenWSN and tests

Requirements: Matlab/Python and C, Broadband Communications, Queueing Theory

For further information please write an e-mail.

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