

May 2017 Progress Report

By

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Working Title

A Hybrid Centralized and Distributed Time Slot
and Channel Hopping Scheme for 6TiSCH Wireless
Sensor Networks

Planned

- Finish experiment for Load-balanced RPL
- Finish Experiment for designing a tsch scheduling algorithm
- Finish the free and Open-source application

Progress

- RPL experiments
 - Extracted results and plotted graphs (organize)
 - To share with co-authors today
- Centralized 6tisch scheduler
 - Extracted resources including (RPL, 6tisch slotframe (get)), using browser
 - Made connected from an external application to network
 - Not yet able to schedule slotframes
- Free and open-source application
 - Writing to sd card : done, but need to check data format
 - Alias: started but not yet working as expected

Plans

- Organize results
- Finish the application (2 weeks)
- 6tisch scheduler
 - Work on POST method of the tsch link resource
 - Schedule (external entity to instruct border router to perform adding, deleting and getting resources)
 - Start paper on centralized scheduling (to 10%)

Challenges

- Tsch driver
 - Could not fit on memory.
 - Reducing code size took almost half a month
 - Limited technical support
 - New technologies