

# July 2018 Progress Report

By

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# Outline

- Objectives
- July Progress
- August Plans and others

# **Working Title**

Towards Robust Wireless Sensor  
Network-based Automatic Weather  
Stations

# **Main Objective**

To design mechanisms to improve robustness of Wireless Sensor Network-based Automatic Weather Stations

# Specific Objectives

- To investigate the status of weather stations in order to establish challenges affecting their operations and identify opportunities for improving the sustainability of Automatic Weather Stations ( AWSs)
- To propose robust optimization techniques for Wireless Sensor Network(WSN)-based AWSs design to address challenges identified
- To propose Quality of Service assessment techniques for the AWS to assess the robustness and performance of the WSN-based AWS

# July Progress

- Presented a paper at the **41st International Conference on Telecommunications and Signal Processing (July 4-6, 2018)**
  - [http://tsp.vutbr.cz/datas/tsp2018\\_proc/TSP2018.pdf](http://tsp.vutbr.cz/datas/tsp2018_proc/TSP2018.pdf), page 501 (*old topic*)
- Reviewed paper: “**Powering environment monitoring wireless sensor networks: lessons learned from East Africa**”
- Attended and got a certificate Philosophy of Methods, a mandatory PhD course (9<sup>th</sup>- 20<sup>th</sup> )- 8 am to 4pm
- Shared a draft paper titled. “Quality of Service and Condition Monitoring of Automatic Weather Stations Based on Wireless Sensor Networks”. To be submitted to the journal of sensors and actuator networks – 75% complete

*Challenges: inability to access research papers. Limited resources on topic*

# August Plans

- QoS and Condition monitoring paper
  - Improve the introduction
  - Add results
  - Receive co-author comments and incorporate them
  - Submit by 15<sup>th</sup> August 2018
- A Robust Optimization Design for data collection in Wireless Sensor Networks (Paper)
  - Considering to send to Special Issue on Green Computing in Wireless Sensor Network
  - To share with co-authors before 20<sup>th</sup> August
  - Submit by 30<sup>th</sup> August 2018
- September: To start the thesis

**THANK YOU**