ELEC 5514 Lab Project

1. ***Select any two performance metrics in the following list.***

    - *Robustness*
    - *Scalability*
    - *Energy Efficiency*
    - *Security*
    - *Self-organization*
    - *Throughput*
    - *Average Delay*
    - *Any other metrics you are interested in (visible difference required with above terms)*

2. ***Propose a methodology to evaluate each selected metric in a wireless sensor network.***

3. ***Improve one of the selected performance metrics with a theoretical analysis and experimental results (or simulation results).***

*Marking Principle**

- The fundamental knowledge and skills learnt from this lab and project. (30 points)

    - The basic understanding of wireless sensor network (5 points)
    - The essential knowledge of embedded system (5 points)
    - The familiarity of the wireless sensor network protocol, ZigBee protocol (10 points)
    - The basic programing and debugging skills (10 points)

- The effectiveness of network quality evaluation. (40 points)

    - The accurate and clear network quality definition (10 points)
    - The effective network quality evaluation methods (20 points)
    - The essential experiment supporting data and analysis (10 points)

- The improvements of the network quality. (30 point)

    - Theoretical research and analysis of the network quality (15 points)
    - The effectiveness of the improvement methods (15 points)

* Marked based on 100 points and this project occupies 20% of the entire course.