

**Electronics and Electrical Communications Engineering Department
Cairo University
ELC 629: Software-Defined Radios and Cognitive Radio Networks
Spring 2017**

Project 1: Emerging Topics in CRNs

Rules:

1- Each group is composed of **at most** 2 students.

2- Each group will select a topic from the set of topics:

- Energy harvesting aided spectrum sensing
- Secure routing in cognitive radio networks
- Cognitive radio and mmWave and 5G cellular networks

3- Each group will have a 30 minutes presentation for the rest of the class. The presentation should be tutorial in nature which means that you should not go deep in the details of the papers rather than giving the class overview of the topic: its fundamentals, challenges and the potential solution. Then you can briefly discuss some of the solutions in the papers. Of course feel free to use any additional papers that you see important.

4- Write a report (no longer than 10 single column pages) to summarize what you learnt about the topic. The report should be your own analysis so do not copy and paste a single sentence from any paper.

5- Grading:

Technical Content: 10 points

Presentation: 5 points

Report: 5 points

All group members will answer the questions after the presentation.