Arab Academy for Science & Technology
and Maritime Transport – Cairo Branch
College of Engineering & Technology

Electronics & Communication Engineering Department

Project Title:

LTE Network Planning: Coverage and Capacity Planning for Radio Planning

Project Objectives:

LTE has a great advantage over the other competitive systems. This is due to the reliability of varying the modulation schemes according to the environmental & coverage distance between the base stations (eNodeB) and the receiver subscriber station (SS). Long Term Evolution (LTE) is 3GPP enhancement to the current cellular system in use. The purpose of developing this system is to keep 3GPP systems competent enough for decades to come. LTE is designed to have wider channels up to 20MHz, with low latency and packet optimized radio access technology.

Project Outcomes:

Upon successful completion of this project, the student should be able to:

- Introduction of LTE features relevant for the dimensioning
- Definition of the basic models for Access Network Planning
- Coverage Planning
- Network Element Planning
- Capacity Planning
- Development and description of Planning tool

Students Rule:

- The project group will implement a simplified LTE planning tool
- Number of students may be 4 or less
- The tool will be implemented by means of Matlab files and suitable Graphical user interface (GUI) .

Project Supervisor:

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