Abstract

Long Term Evolution (LTE) is the latest and most enhanced broadband wireless access (BWA) technology. LTE is the latest standard in the mobile network technology tree that previously realized the GSM/EDGE and UMTS/HSxPA technologies. LTE is expected to ensure 3GPP's competitive edge over other cellular technologies. The standardization process of LTE is almost at its end. With industrial attachment very few radio planning works of LTE are going on. But because of certain commercial issues those works aren't widely available. Radio network planning is a very vital step for wireless communication technology. As standardization work of LTE is approaching the end line, it's high time to go for efficient radio network planning guideline for LTE. In LTE just like other cellular technologies, initial planning is normally guided by various industries and vendors at their own discretion. They aren't likely to disclose their advancements and findings. That makes the job even more challenging. As a result, going on with LTE radio network planning perspective is a well-chosen challenge and a certain hot topic in the current research arena. In this work, a detailed LTE radio network dimensioning procedure i.e. capacity and coverage analysis has been performed in order to prepare a radio planning guideline considering possible network
implementation in the densely populated South-Asian city-Dhaka.

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Index Terms
Keywords
Lte  Dimensioning  Link Budget  Coverage  Capacity  Radio Network Planning