

Abstract Details

Title: Power Optimizations for LTE

Authors: Farha Omer Mohammed Omer, Dr. Khalid Hamid Bilal and Dr. Mustafa Mohammed Alhassan

Abstract: Long Term Evolution (LTE) is a beginning option for the 4th generation communications because of its higher data rates, lower latency and larger coverage. However, in multi user environment, number of users shares the same radio resources. The shared channels cause the signal intended for a certain user to reach other users and introduce interference in their path and degrade the signal quality. This paper addresses Power control needs to reduce inter-cell interference level and at the same time to estimated SNR level. To achieve this SNR level eNodeB sends Transmit Power Control (TPC) Command in Downlink in PDCCH and UE sends Power Head Room (PHR) stating how more it can transmit to reach maximum power.

Keywords: LTE, OFDM, Power control, MISO.