COMMON CONTROL CHANNEL UPLINK POWER CONTROL FOR ADAPTIVE MODULATION AND CODING TECHNIQUES

ABSTRACT

Using wireless digital code-division multiple access (CDMA) technology, a method and system in which adaptive modulation and coding (AM & C) is utilized in order to achieve improved radio resource utilization and provide increased data rates for user services in which the base station (12) measures up link interference on all time slots received from user equipment UEs (30) and determines the need for uplink control channel. The base station transmits to the UE the allocation of specific uplink control channels indicating uplink interference in the time slot and potentially the quality margin. The UE (30) determines appropriate uplink power level based on a path loss determination (42) made by the UE, uplink interference and an optional quality margin. The UE (30) then initiates an uplink communication responsive to these determinations.

Fig. 2