

## Environmental Impact Assessment of Electromagnetic Fields Emitted from Mobile Base Station in Central Area of KSA

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**Abstract :** The rapid growth in the number of mobile phone subscribers has resulted in an increased number of mobile base stations all over the world. Generally, mobile base stations are existing in huge numbers in populated areas than in non-populated ones to serve the largest number of users. The total number of mobile subscriptions in the Kingdom of Saudi Arabia reached around 50 million at the end of 2014, with a penetration rate of 165.1% according to the quarterly electronic newsletter issued by the Communications and Information Technology Commission. The current investigation was conducted primarily to measure the level of electromagnetic fields emitted from 400 mobile base stations for the purpose of environmental safety and radiation protection in light of national guidelines for public exposure as well as the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The outcomes of this investigation provide valuable comments and recommendation for safety and protection of electromagnetic fields emitted from mobile base stations.

**Keywords :** electromagnetic fields, mobile, safety, protection, ICNIRP

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