Abstract

Problem statement: Inadequate knowledge of electromagnetic field emitted by mobile phones and increased usage at close proximity, created a lot of skepticism and speculations among end users on its safety or otherwise. Approach: In this study, near field electromagnetic field radiation measurements were conducted on different brand of mobile phones in active mode using a tri-axis isotropic probe and electric field meter. Results: The highest electromagnetic field exposure was recorded when the mobile phones are at outgoing call mode and backing the probe, which is higher in comparison to ICNIRP guidelines for exposure to general public. Conclusion: According to this finding, some mobile phones electromagnetic field radiation were found to be lower than the ICNIRP guidelines while some were far above the guidelines. Electromagnetic field intensity however, depends on the mode of operation and proximity of the mobile phones to the end user; hence it is safer to use mobile phones at SMS mode.

Keyword: Electromagnetic field radiation; Active mode; Exposure level; Wireless phones.