Radiation Mitigation Techniques for Mobile Radio Base Stations

Hussein Ali Hussein
Engineering College, University of Al-Mustansirya/Baghdad
Email:hussien_aldulfy@yahoo.com

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ABSTRACT
Growing demand for mobile communication services results in a continuous increase in the number of base stations over a limited area, accompanied by public concern for possible health and ecological effect of these systems.
In this paper, the factors that controlling the power density around base stations on the ground level are presented and discussed.
Many techniques to mitigate the electromagnetic exposure levels in the vicinity of base stations are discussed. Using phased array antenna as an efficient approach for RF radiation reduction in the near of the base stations is analyzed and compared with cell splitting technique. The required base station numbers in both techniques are calculated and compared.