



SPECIFIC ABSORPTION RATE ASSESSMENT ON HUMAN HEAD DUE TO RADIATIONS BY MOBILE PHONE ANTENNA

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Abstract- Development of mobile phone communication infrastructure in the world has promoted which lead public concern over possible health effect exposure to radio frequency electromagnetic energy (RFEME) emanating from mobile phone antenna. The Micro-strip patch antenna plays an important role in electromagnetic energy transmitting and receiving phenomena in mobile phone. This paper makes an effort to assess the mobile radiation exposure effect on 4 years child, 8years child and an adult head model. Hand held device model having micro-strip antenna is used for human interaction. The software simulation performed by Computer simulation technique (CST) software based on Finite difference Time Domain Technique yields specific absorption rate and 3D-thermal distribution on spherical human head.

Index terms: Radio Frequency ElectroMagnetic Energy (RFEME) , Computer Simulation Technique (CST),Specific Absorption Rate (SAR),Magnetic Resonance Imaging (MRI)