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NUMERICAL SIMULATION WITH A VIEW TO ANALYSE THE BIOLOGICAL EFFECTS OF ELECTROMAGNETIC FIELDS

BY

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Abstract. By means of electromagnetic field simulation using CST program, we determined the electric fields induced in the tissues of the human head, the induced current densities and the specific absorption rate (SAR), for each frequency of the electromagnetic environment. In this scope we used as exposure fields the levels of electromagnetic environment due to radiofrequency communication systems measured in some residential areas, for 90 MHz ÷ 3 GHz frequency range.

Keywords: numerical methods, CST program, specific absorption rate (SAR), induced current density.