This paper discusses briefly a fuzzy-based assessment of health hazard due to electromagnetic radiation. The RF electromagnetic fields, out of the measurement points, were calculated by the developed software based on fuzzy logic. The electric and magnetic field components of RF radiation value at any point can be compared with national/international standards and limits easily using this software. There is currently a general consensus in the scientific and standards community that the most significant parameter, in terms of biologically relevant effects of human exposure to radiofrequency electromagnetic fields, specific absorption rate is the specific energy absorption rate in tissue, a quantity properly averaged in time and space and expressed in watts per kilogram. The Institute of Electrical and Electronics Engineers recognizes that there is public concern regarding the safety of exposure to the radio frequency and microwave fields from hand-held, portable, and mobile cellular telephones. International organizations have established guidelines for human exposure to radio frequency energy. While these guidelines differ in some respects, their limits in the frequency range used by wireless communications devices are broadly similar. The consensus of the scientific community, as reflected in these exposure guidelines, is that exposure to RF energy within the recommended limits stated in these guidelines is safe. However, there is a scientific discontinuity in view of health hazards. In this study, a fuzzification/defuzzification method of the discontinuity problem makes the “soft” boundaries between hazardous regions and non-hazardous regions. In future studies, more sophisticated fuzzy methods should be tested for more realistic solutions.