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ENVIRONMENTAL IMPACTS OF THE ELECTROMAGNETIC FIELD LEVELS NEAR OVERHEAD TRANSMISSION LINES

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Abstract

According to the contemporary research, there are some indications that extremely low frequency electromagnetic fields, such as those originating from electric power transmission lines, can have some influence on human health. This work involved the computation of the magnetic field generated by one typical 110 kV power transmission line in Serbia by applying artificial intelligence techniques that, as previous investigations confirmed, allow accurate assessment. At first, the investigation was aimed at defining area in vicinity of power lines in which there was a potential health risk for people who stayed longer in this zone. Then, the focus of further research was to predict and analyze the magnetic field levels inside imaginary home located within defined zone, at different specific heights from the ground, and to imply on their possible influence on the inhabited environment.

Key words: artificial intelligence techniques, magnetic field, power transmission line

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