

The SEMONT Monitoring and Risk Assessment of Environmental EMF Pollution

Authors : Dragan Kljajic, Nikola Djuric, Karolina Kasas-Lazetic, Danka Antic

Abstract : Wireless communications have been expanded very fast in recent decades. This technology relies on an extensive network of base stations and antennas, using radio frequency signals to transmit information. Devices that use wireless communication, while offering various services, basically act as sources of non-ionizing electromagnetic fields (EMF). Such devices are permanently present in the human vicinity and almost constantly radiate, causing EMF pollution of the environment. This fact has initiated development of modern systems for observation of the EMF pollution, as well as for risk assessment. This paper presents the Serbian electromagnetic field monitoring network - SEMONT, designed for automated, remote and continuous broadband monitoring of EMF in the environment. Measurement results of the SEMONT monitoring at one of the test locations, within the main campus of the University of Novi Sad, are presented and discussed, along with corresponding exposure assessment of the general population, regarding the Serbian legislation.

Keywords : EMF monitoring, exposure assessment, sensor nodes, wireless network

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