



Measurements electromagnetic radiation the frequency of 50 Hz

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The instruments used in the investigation were purchased within the Tempus project "Geomagnetic Measurements and Quality Standards": 50 Hz Magnetic Dosimeter, Gaussmeter Model 8532, Multidetector II Profi, Walker ELF 90D and Fluxgate magnetometer 3D. The instruments were used to measure the electric and magnetic fields of power lines, transformers, cables, computers, TVs etc. MEDA model 8532 is very susceptible and accurate single axis gauss meter used as mobile instrument which is combined in order to carry out precise measurements of RMS characteristics of the intensity of magnetic field. ELF series of field monitors measured the magnitude of electromagnetic radiation and are portable instruments manufactured and calibrated to measure low electromagnetic measurements (50 or 60 Hz). The range of measurements of ELF- 90D is fields from 0,1 to 1999 miligauss. Multidetector II Profi measures VLF (higher than 500 Hz) and ELF (below 500 Hz) electro – magnetic radiation and contain integrated frequency filter which makes it possible to select between two frequency areas. All wires and apparatuses such as lamps and transformers operate in ELF area, whereas computers and TVs emit field within VLF frequency area. Fluxgate magnetometers can measure DC magnetic field from 1 gamma to 2 Gauss. It can be used to measure the Earth's magnetic field and AC fields. The investigations included measurements of the same radiations sources with different instruments. The results obtained are of approximate values depending on the precision of instruments.