Mobile Device for Radiation Measurements in Big Cities

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In this research, we have introduced and analyzed a new method of creating a large-scale network for monitoring the radiation background in big cities. The project is based on integration of Geiger sensor and common smartphone. This allows to create a portable compact device for continuous recording of radiation background caused by anthropogenic and natural sources of radiation. Using a GPS receiver on a smartphone makes it possible to provide geodetic connection of measurements. As a result, most people would be able to monitor the radiation background when moving around the city. Collecting measurement data in data-processing center allows to control the radiation level over the whole territory of the city. The device uses specially-designed Android app. As a part of the project, necessary nodes for radiation measurements have been designed, adjusted and tested.

Awards Won:
Fourth Award of $500