

ABSTRACT

The intent of this work was to come up with a project to design a device that was to be used to detect RF (Radio Frequency) signals produced by active mobile phones. In layman knowledge the detector was to be used in finding the presence of a mobile phone in a given region, therefore making it easy to monitor possession of mobile phones. The circuit of the device used simple available electronic components that were armature scientist available and familiar as clearly demonstrated and illustrated in the methods of implementation. The device, (RF signal detector) was to be used to prevent the use of mobile phones in places where they were restricted such as confidential rooms including examination halls in Universities and other tertiary institutions, to recover lost mobile phones within a given range and thus improve the likelihood of recovering lost mobile phones. The circuit consisted of the receiver (input) components, the processing and the output components. The major input (receiver) was an antenna; the processing included a series of components like resistors, capacitors and transistors. In this case the signal was be amplified and converted into electrical current. The output was an LED, the LED was to blink with light as an indicator when the signal had been detected. It was expected that the intensity of the LED light could correspond to how close the device being detected was. The use of mobile phones in examination Hall was one of the major exam irregularities affecting Kenyan tertiary institutions, this project focused to reduce this challenge. The other aims included testing the strength of the RF signal with a comparison to the length of testing and to reduce the size of the device to fit the pocket size for flexibility and portability of this detector.