

Spectrum Monitoring System and Benchmarking of Mobile Networks Using Open Software Radios – SIMONES

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Abstract:

In this article, we briefly describe a project whose main objective is to offer simple, unattended operation and low cost spectrum monitoring units based on Open Source software and hardware for Software Defined Radio (SDR), to support monitoring and management tasks and to complement traditional fixed, transportable and mobile spectrum monitoring units, with specific functionalities that are not common in typical monitoring systems. The system was designed according to the monitoring tasks specified in ITU-R Recommendation SM.1392: Essential requirements for a spectrum monitoring system for developing countries [1]. The project is the result of cooperation between a company specialized in spectrum related activities and a university, with a Colciencias grant and the endorsement of the Colombian National Spectrum Agency.