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# Innovative mobile mapping system with GIS for tree inventory assessment using FOSS tools

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**Abstract**

Trees are major capital assets in world. Systematically protect various trees is very difficult in developing country. Geographical Information Systems (GIS) are used for inputting, storing, managing, analysing and mapping spatial data. GIS is very important role in developing country because rising demand for resource and space, especially in country like India, where population exceed the resource available, we need smart solution. A smart cities use location based information to enhance performance and wellbeing, to reduce cost and resource conception, and also engage more effitency and actively with its citizens. This paper deeply discuss how to implement Tree inventory management system using open source GIS tools. Tree inventories can include the collection of tree data on a large scale such as canopy cover, forest type and condition, or examine the specific condition of individual trees, such as health, type, current status different trees, data collection is done on mobile based field inspection and assessment. This system is used to create different FOSS tools. This open source GIS-based applications for innovative, sustainable solutions to many of today's common environmental problems.

*.Keywords: Open source, ODK, Sustainable development, Qgis*

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