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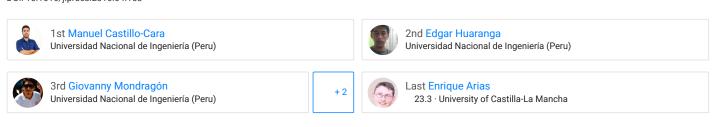**2** Citations   **15** References   **1** Figure

Ray: Smart Indoor/Outdoor Routes for the Blind Using Bluetooth 4.0 BLE

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Abstract

This work describes the implementation of a cost-effective assistive mobile application aiming to improve the quality of life of visually impaired people. Taking into account the architectural adaptations being done in many cities around the world, such as tactile sidewalks, the mobile application provides support to guide the visually impaired through outdoor/indoor spaces making use of various navigation technologies. The actual development of the application presented herein has been done taking into account that the safety of the end user will very much depend on the robustness, accuracy and timeliness of the information to be provided. Furthermore, we have based our development on open source code: a must for applications to be adapted to the cultural and social characteristics of urban areas across the world.

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