

Accepted Manuscript

A real-time indoor localization approach integrated with a Geographic Information System (GIS)

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PII: S0921-8890(15)00173-6

DOI: <http://dx.doi.org/10.1016/j.robot.2015.08.005>

Reference: ROBOT 2522

To appear in: *Robotics and Autonomous Systems*

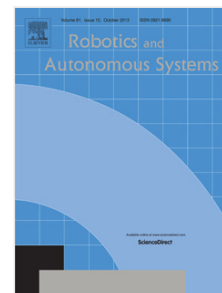
Received date: 24 March 2015

Revised date: 31 July 2015

Accepted date: 7 August 2015

Please cite this article as: C. Fernández-Caramés, F.J. Serrano, V. Moreno, B. Curto, J.F. Rodríguez-Aragón, R. Alves, A real-time indoor localization approach integrated with a Geographic Information System (GIS), *Robotics and Autonomous Systems* (2015), <http://dx.doi.org/10.1016/j.robot.2015.08.005>

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Indoor spaces, obtained from standard like AUTOCAD, are exploited by Spatial Database

We propose a real-time door detection system that fuses laser and vision data.

The robot performs EKF localization, fusing our door detection system with the GIS.

Our data modeling increases interoperability, scalability and spatial abstraction.

The approach for robotic autonomous missions can be quite useful for rescue missions.

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