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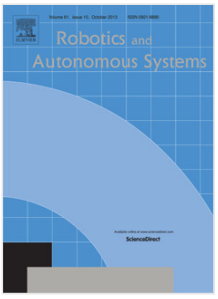

A real-time indoor localization approach integrated with a Geographic Information System (GIS)

Carlos Fernández-Caramés, F. Javier Serrano, Vidal Moreno, Belén Curto,
J.F. Rodriguez-Aragón, Raúl Alves

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***Research Highlights**

- 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.