

REAL-TIME MAP GENERATION BY MOBILE MULTI-SENSOR DEVICE FOR INDOOR LOCALIZATION

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Abstract

Rescue teams, like fire-fighters, are exposed every day to several dangerous scenarios and in particular, the reduced knowledge about the specific environment in which the fireman has to move increases the risk level.

This trouble could be simply solved by equipping the operators with specific technologies, which should allow acquiring information on the explored environment and communicate that information real-time to other colleagues as well as to the nearest centre of operations.

An example of the above-mentioned technologies is represented by the laser sensor, which could be exploited in order to generate a 2D map of the observed area.

The objective of this project activity regards the study, design and development of a simple equipment characterized by the integration of laser and compass technologies. Successively, this equipment will become part of a Wireless Sensor Network (WSN), which are widely used nowadays for several monitoring applications.

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