Location Tracking of Human Using Mobile Robot and Wireless Sensor Networks

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Abstract : In order to avoid dangerous environmental disasters, robots are being recognized as good entrants to step in as human rescuers. Robots has been gaining interest of many researchers in rescue matters especially which are furnished with advanced sensors. In distributed wireless robot system main objective for a rescue system is to track the location of the object continuously. This paper provides a novel idea to track and locate human in disaster area using stereo vision system and ZigBee technology. This system recursively predict and updates 3D coordinates in a robot coordinate camera system of a human which makes the system cost effective. This system is comprised of ZigBee network which has many advantages such as low power consumption, self-healing low data rates and low cost.

Keywords : stereo vision, segmentation, classification, human tracking, ZigBee module