

METHOD AND SYSTEM FOR INSPECTING A BUILDING CONSTRUCTION SITE USING A MOBILE ROBOTIC SYSTEM

ABSTRACT

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A method of inspecting a building construction site using a mobile robotic system is provided. The mobile robotic system includes a mobile platform and a sensor system mounted on the mobile platform and configured to generate one or more types of sensor data. The method includes: receiving object identification information identifying at least one building object to be inspected by the mobile robotic system in the building construction site; obtaining a robot navigation map covering the at least one building object based on a building information model for the building construction site; and determining at least one goal point in the robot navigation map for the at least one building object, each goal point being a position in the robot navigation map for the mobile robotic system to navigate autonomously to for inspecting corresponding one or more building objects of the at least one building object. In particular, each goal point is determined based on geometric information associated with the corresponding one or more building objects extracted from the building information model and geometric information associated with an imaging sensor of the sensor system for optimizing coverage of the corresponding one or more building objects by the imaging sensor. There is also provided a corresponding system for inspecting a building construction site.

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FIG. 2