

Abstract

SEQUENTIAL MAPPING AND LOCALIZATION (SMAL) FOR NAVIGATION

5 A method of sequential mapping and localization (SMAL) is disclosed for navigating a
mobile object (i.e. SMAL method). The SMAL method comprises a step of generating an
initial map of an unknown environment in a mapping process; a step of determining a
location of the mobile object in the initial map in a localization process; and a step of
guiding the mobile object in the unknown environment, e.g. by creating a control or an
10 instruction to the mobile object. A system using the SMAL method and a computer
program product for implementing the SMAL method are also disclosed accordingly.

(Fig. 1)