

# A Patrol Guidance Mechanism in a Context-aware Environment

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## Abstract

A Patrol is important for the safety of a building or a factory. While sensors are becoming more popular, there is a trend of integration of sensors and a patrol. How to effectively and efficiently facilitate a patrol in advantage of a context-aware environment formed by interconnecting these sensors and wireless networks becomes an issue. In this paper we present a mechanism in which the patrol route is deduced according the context information acquired from sensors so that the possible hazardous condition can be either avoided or the damage can be diminished. The mechanism is analyzed by simulations and proved to be effective and efficient. A patrol guidance system built on the mechanism is also demonstrated.

Keyword : context-awareness, patrol, route planning, wireless sensor network