

# Intelligent Tourist Guiding Service for e-Tourism Application

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## Abstract

Recently, the tourist business has become more and more popular. Tourists travel around the world and visit attractions and other places of interests. In this regard a service for guiding tourists using personal mobile devices would increase attractiveness of a region for tourists. Using his/her personal mobile device the tourist can easily discover available local services and utilize those, which better suit the current situation and device constraints. Mobile computing has been an active area of research for the past years. All these allow providing the tourist with contextualized and personalized information according to personal needs, rather than having the user searching endlessly for useful information.

A mobile device should not be treated as an autonomous environmental device, but as an artifact seamlessly integrated into the environment. The intelligent tourist guiding service suggests the tourist attractions that are better to attend based on his/her preferences and current situation in the region. The service is based on smart space concept which provides possibilities of shared information exchange between smart space participants. The main benefit of the presented approach is to assist tourists in the region using their personal mobile devices. Such mobile devices only need an Internet connection and capabilities to show appropriate information to tourists.

The tourist guiding service incorporates the following extra services: routing service, taxi calling service, ridesharing Service, and attraction information service. The routing service suggests the tourist a set of alternative transportation means based on user preferences about transportations means, public transport schedule, available taxi drivers around, and ridesharing possibilities at the moment. Taxi service chooses the nearest taxi and calls it. The ridesharing service performs matching of the tourist and attraction locations with paths of available drivers and finds possible fellow travelers. The attraction information service extracts appropriate information from different sources like: Wikivoyage, Wikipedia and provides it to the tourist.