A Method And Apparatus For Determining Location Information Of A Position In A Multi-Storey Building

Abstract

A method and apparatus for determining location information of a position in a multi-storey building, the method comprising: retrieving observation data comprising observed addresses and corresponding observed received signal strengths of wireless access points detected at the position from a memory; retrieving, for each storey of the building, a radio map comprising a plurality of location points in the respective storey of the building from a database, each location point comprising addresses and corresponding mean received signal strengths of wireless access points detected at the location point and coordinates of the location point; selecting one or more location points comprising the observed addresses from the radio map; determining a storey estimate of the position by calculating a sum probability for each storey of the building, the sum probability being calculated by summing all individual probabilities of each observed address contained in each selected location point in the radio map of the respective storey being detected on the respective storey; and setting the storey estimate as the storey of the building having highest value of the calculated sum probability, wherein each of said individual probabilities is calculated based on the corresponding observed received signal strength of said each observed address in said each selected location point and the corresponding mean received signal strength in said each selected location point containing said each observed address.

Figure 1