Conferest- Event Application for Comfortable Visiting Experience

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SUMMARY

People spend 90 percent of their time indoors. The evolution of ubiquitous outdoor positioning based on Global Navigation Satellite Systems (GNSS) has created a huge market for location based services and desire to use them also indoors. At present, there is no single technology that could provide all the posi-tioning features indoors that GNSS can outdoors. However, methods based on mapping of WiFi signals has proven to be feasible for public indoor areas, like exhibition venues. WiFi positioning is based on a priori preparation of the environment; the signal strengths at known positions are measured and a re-ceived signal strength indication (RSSI) fingerprint map formed. The map is then provided to the users of the positioning system. When the user moves around the mapped area, the WiFi signal strengths are again measured with user's equipment, and the user's most probable position computed by comparing the achieved signal strengths and the existing fingerprint map.

Finnish Geospatial Research Institute (FGI) of National Land Survey of Finland (NLS) has developed a demo application, named Conferest, for improved user experience. Its name, Conferest, reflects the val-ue of using the application; obtaining a conference experience that leaves the user feeling relaxed and as he had been resting. The application was used at an event in Finland, called Paikkatietomarkkinat. The application provides the user with accurate indoor positioning and routing, possibility to find exhibi-tors and their locations at the exhibition area and enables personalizing the visit's program.

The application is a result of innovative collaboration between four organizations. Iindoor positioning is based on HERE's WiFi indoor positioning system (https://here.com/en/products-services/products/here-positioning) and three dimensional venue maps, event management on an event application provided by Messukeskus for all events arranged

in its premises and developed by a company called Qvik. FGI has developed the application, integrated all components and implemented all event specific content. The application was launched on November 2016 at Paikkatietomarkkinat and it attracted many event visi-tors. Based on feedback collected from the users it was further developed for a final application will be introduced at FIG Working Week in Finland on May 2017. This presentation discusses the application, the challenges in its development and discusses its possible further deployment.