

ABSTRACT

The navigation system using GPS technology is now very advanced when used outdoors. In addition to the development of navigation systems, infrastructure is also developing such as multi-story buildings that have lots of space, so it can be difficult for visitors to find a room. However, GPS technology is still inaccurate when used indoors, this is caused by signal attenuation through construction materials in buildings and from other radio sources which cause large positioning errors. To overcome these problems, we need a navigation system that is suitable for use in a building, namely by using BLE Beacon as a device that can provide signals in the room so that it can be reached by a smartphone device. This case study was conducted on the first floor of the Telkom University Faculty of Applied Sciences building. The method used in creating a navigation system to identify locations in a room is by detecting beacon signals and checking the proximity of the smartphone to the beacon area. In addition to the navigation system, this system also presents room and event information contained in the building.

Keywords: navigation, proximity, beacon, informative