

ABSTRACT

Bluetooth Low Energy (BLE) is a beacons system that gained high popularity due to its low energy consumption. BLE technology transmits broadcast messages from one to many devices and has more functions that can broadcast information and pinpoint location in detail within a building. Currently in the campus environment of the Faculty of Applied Sciences (FIT) students often have problems in finding cubical lecturers. The Final Project provides a solution using BLE technology to detect the location of the lecturer's cubicle in the FIT lecturers' room. BLE Beacons uses distance estimation techniques less than 0.5 meters between BLE devices and smartphones. Applications on the smartphone can be used to detect lecturer cubes with time delay ± 10 seconds. The experimental results show that BLE Beacons can be used to obtain the relevant lecturer information and detect cubic at the Faculty of Applied Sciences of Telkom University.

Keywords : *Bluetooth Low Energy (BLE), Beacons, Smartphone, Cubical Lecturer.*