

Introduction of Beacon Control Points Using IoT

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Key words: Cadastre; Beacon, Cadastral Control Point, IoT

SUMMARY

Currently in Korea, management of cadastral control points is entrusted by LX(Korea Land and Geospatial Informatix Corporation), but the problems of points managements still occur because of point loss for road pavement, a manpower shortage and so on. To solve these problems, LX corporation is studying and developing cadastral control points system using Beacon.

A beacon is a Bluetooth 4.0-based low-power signal transceiver that detects and manages objects and people within a 50-meter radius. Recently, various attempts have emerged according to the developments in Internet of the Things(IoT). Among them, Beacon, wireless local area network technology, is getting popular.

In cadastral surveying, the advantage of beacon control points is that it can be easily found through a beep sound for control points within a certain distance of the mobile app. Therefore, it is effective to find control points in areas covered with soil, leaves, snow or ice, and forest areas. It is also possible to systematically manage digitized cadastral control points due to computerized surveys. These beacons will bring innovation in surveying and will be the basis for digitized surveying in the future world.

The purpose of this paper is to examine the problems of current control points and introduce the beacon to be used as survey control points in Korea in the near future.