

Centralized Geodatabase and Mobile Field Data Collection for University Campus Information System

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Recently, the use of mobile communication devices, such as smart phones and cellular phones, in field data collection is increasing due to the emergence of embedded Global Position Systems (GPS) and Wi-Fi Internet access. Accurate, timely and handy field data collection is required for disaster management and quick response during emergencies. In this presentation, we introduce a web-based GIS system to collect the field data from personal mobile phones and smart phone through a Post Office Protocol POP3 mail server and Web-GIS. The main objective of this work is to demonstrate a real-time field data collection method to students using their mobile phones to collect field data in a timely and handy manner, either in individual or group surveys at local or global scale research. This Web-based GIS will be used as Tsukuba University campus information system and facility management for students and visitors.

Keywords: Web-Based GIS System, Real-Time Field Data Collection, POP3 Mail Server, Smart Phone, Personal Mobile Phone