Development of DLSU-D 3D Campus Map and Vehicle Tracking System using GIS-GPS Technology

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ABSTRACT

DLSU-D 3D Map with Vehicle Tracking System using GIS-GPS Technology is a development project that exhibited the capabilities of Arduino Based Microcontrollers and GIS Technology. The project is designed with a smart interface where the map is created using SketchUp and displayed on LED touchscreen monitor. The user can navigate by selecting from a series of toolbars available on the screen.

The project was created based on three methods: design, simulation and assessment. The project encompassed the use of GIS technology concept through geolocation and mapping. The project also featured real-time data tracking of vehicles, specifically the *ikot* vehicle in DLSU-D, where the GPS tracker collected data and sent it to the main map server to determine a vehicle's location within the campus.

The project is designed for smart navigation of the campus where the visitors as well as the students may be able to locate buildings within the campus. In addition, it will also help them track the *ikot* vehicle for a hassle free waiting time.