

Effectiveness and Efficiency of Unified Philippines Accident Reporting and Database System in Optimizing Road Crash Data Usage with Various Stakeholders

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Abstract : The Unified Philippine Accident Reporting and Database System (UPARDS), is a newly developed system by Dr. Francis Aldrine Uy of the Mapua Institute of Technology. The main purpose is to provide an advanced road accident investigation tool, record keeping and analysis system for stakeholders such as Philippine National Police (PNP), Metro Manila Development Authority (MMDA), Department of Public Works and Highways (DPWH), Department of Health (DOH), and insurance companies. The system is composed of 2 components, the mobile application for road accident investigators that takes advantage of available technology to advance data gathering and the web application that integrates all accident data for the use of all stakeholders. The researchers with the cooperation of PNP's Vehicle Traffic Investigation Sector of the City of Manila, conducted the field-testing of the application in fifteen (15) accident cases. Simultaneously, the researchers also distributed surveys to PNP, Manila Doctors Hospital, and Charter Ping An Insurance Company to gather their insights regarding the web application. The survey was designed on information systems theory called Technology Acceptance Model. The results of the surveys revealed that the respondents were greatly satisfied with the visualization and functions of the applications as it proved to be effective and far more efficient in comparison with the conventional pen-and-paper method. In conclusion, the pilot study was able to address the need for improvement of the current system.

Keywords : accident, database, investigation, mobile application, pilot testing

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