

Amarin Tangsuksun 2011: Highway Flood Monitoring and Annual Budget Prediction System. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Assistant Professor Suphawut Malaikrisanachalee, Ph.D. 85 pages.

Recently, the severity of flood impacts is becoming more intensified and causing more damages to national highways. The Department of Highways currently experiences difficulties in monitoring flood inundation on national highways as well as preparing annual budget for highway repairs from flood damages. This study aims to develop an online GIS-based system for reporting and closely monitoring flood inundation on national highways to support decision makings of the Department of Highways officials to undertake proper actions for the impending flood problems. Furthermore, the flood inundation data reported to the system are used to forecast future annual budget requirement for flood repairing activities though the regression analysis and successive estimating techniques.

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