# UNIVERSITI TEKNOLOGI MARA

# MONITORING DISTRIBUTION PATTERN OF DENGUE OUTBREAK BY USING GEOGRAPHICAL INFORMATION SYSTEM: A CASE OF HULU LANGAT DISTRICT, SELANGOR

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# ABSTRACT

Dengue has been an epidemic, mosquito borne viral disease in Malaysia. It is a life-threatening disease. In Malaysia, there were 43,346 cases reported in the year 2013, an increase of 98% or 21,446 cases compared with only 21,900 cases reported in 2012. It indicates that the number of reported dengue patients has rapidly increased during the past few years, particularly due to socio-cultural and environmental factors. There are many prevention and control strategies that are currently being implemented in order to at least minimize the dengue outbreak occurrences, and one of the potential strategies is by using Geographical Information System (GIS). Through GIS, the gathered dengue data can be visualized and analyzed by performing thematic mapping, labeling, fogging buffering area, querying and generating a summary report. Therefore, the aim of this research is to propose a GIS prototype application for Vector Unit, Hulu Langat Health Office, Selangor in order to help them to monitor the dengue outbreak in Hulu Langat district's area by using related datasets in a spatial database.

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