

IDENTIFICATION OF FLOOD PRONE AREAS USING INTERGRATION OF REMOTE SENSING AND HYDROLOGICAL MODEL

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Abstract : This study demonstrates the use of remote sensing technique that incorporated with hydrological model and it has been widely used in United State for flood analysis study. The study in Iskandar Malaysia which is recent development areas that had been carried out in Johor since 2008. From the flood data during 2006-2007 which had caused the greatest number of losses, this study incorporated the situation during that time, focused on Iskandar flagship zone which is ZONE A; Johor Bahru City and ZONE B; Nusajaya. By using Landsat -5 Image, the data are then incorporated into the hydrological model to produce a runoff value of the study area. This output is then being processed to produce the peak discharge amongst the watershed for the flood prone area assessment. From the results, the area affected during the 2006-2007 such as Sungai Skudai had been selected based on the analysis. The result shows the remote sensing can be incorporated to detect flood prone area.

Keywords: hydrological model, remote sensing, flood prone area.