

UNIVERSITI TEKNOLOGI MARA

**SPATIAL CORRELATION OF HAND, FOOT AND
MOUTH DISEASE (HFMD) BASED ON THE
METEOROLOGICAL, ENVIRONMENT AND
POPULATION FACTOR IN JOHOR BAHRU**

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of the requirements for the degree of
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Faculty of Architecture, Planning and Surveying

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AUTHOR’S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

The prevalence of Hand, Foot and Mouth disease (HFMD) cases in Malaysia is now rising as reported by several sources such as the mass media and Internet. The aim of this study is to analyse the relationship of HFMD cases based on the population density, weather condition and the temperature in Johor Bahru using Geographical Information System (GIS). Three objectives were designed for this study. The first objective was to create geo-referenced database of Johor Bahru. The second objective aimed to locate HFMD cases distribution and produce hotspot analysis in Johor Bahru. The last objective for this study are aimed to identify the relationship between the meteorological factor, population density and environment factor towards the HFMD cases in Johor Bahru. The result indicates that the disease can occur throughout the year, however it reaches peak in March until August, of which is during the dry season. Furthermore, this study identified the most common areas for the prevalence of HFMD cases in Johor Bahru, which is near the area where migration takes place by producing a hot spot and cold spot map where it is showing which area are affected the most by the disease.

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