

Prediksi Penyebaran Penyakit Demam Berdarahn *Dengue* (DBD) Menggunakan *Susceptible-Infected-Recover* (SIR) dan *Geographic Information System*

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Abstract

Dengue Hemorrhagic Fever (DHF) is an infectious disease caused by *Aedes Aegeypti*. This infectious disease is still very disturbing to the people because of the lack of early handling to reduce the number of victim who suffering from DHF. Therefore it is necessary to have effective preventive measures so that they can be dealt with quickly and precisely. In this final project a study was conducted to make a simulation the spread of *dengue* disease using the SIR (*Susceptible – Infected – Recover*) method and optimized with *Genetic Algortihm* (GA) and make a mapping usinng (GIS) *Geographical Information System* for the spread of DHF. In this research shows tha the best optimal result for the rate of spread (β) between $0 - 10^{-7}$.

Keywords: SIR (*Susceptible-Infected-Recmoved*), DBD (*demam berdarah dengue*), GIS (*Geographic Information System*), GA (*Genetic Algorithm*)
