1116-92-116   **Tarig Mohamed Ali** (`ta_rig92@yahoo.com`), School Of Distance Education, Universiti Sains Malaysia, 11800 Penang, Penang, Malaysia, **Mohamed Faisal Abd Karim** (`faisal@usm.my`), School of Distance Education, Universiti Sains Malaysia, 11800 Penang, Penang, Malaysia, and **Anton Abdulbasah Kamil*** (`anton@usm.my`), School of Distance Education, Universiti Sains Malaysia, 11800 Penang, Penang, Malaysia. *Sensitivity Analysis of Mathematical Model for Dengue fever Transmission.*

An epidemiological model describing a dengue disease transmission is formulated together with the associated basic reproduction number. The model is based on monitoring the dynamics of the humans and mosquitoes populations. The human population is classified into three epidemiological states, the susceptible, infected, and recovered humans. The mosquito's populations is subdivided into three classes of the aquatic stage or larva mosquitoes, uninfected female mosquitoes, and infected female mosquitoes. A sensitivity analysis is carried out to study how sensitive is the model to a particular parameter. Using Mathematica as a computational tool, a parameter is varied over a wide range to determine the relative importance of the model parameters to the disease propagation and control. Numerical result of sensitivity indices shows that the availabity of humans is the most sensitive. And the natural death of larvae is less sensitive. (Received July 30, 2015)