

ABSTRAK

Demam merupakan gejala atau respons tubuh terhadap suatu infeksi. Demam dapat disebabkan karena adanya infeksi virus, bakteri, dan demam akibat gigitan nyamuk. Beberapa penyakit penyebab demam yang perlu diwaspadai antara lain Demam Berdarah *Dengue* (DBD), Demam *Tifoid*, dan Malaria, dikarenakan gejala klinis dari ketiga penyakit tersebut sangat mirip dan sulit dibedakan. Akibat dari gejala yang mirip, seringkali menyebabkan kesulitan dalam mendapatkan diagnosis awal sehingga kurang tepat dalam penanganan. Oleh karena itu, pada penelitian ini dibangun sebuah sistem yang dapat mengklasifikasikan demam menggunakan metode *Neighbor Weighted K-Nearest Neighbor* (NWKNN). Data yang digunakan sebanyak 300 data dengan komposisi rasio data latih dan data uji adalah 70%:30% sehingga data latih yang digunakan sebanyak 210 data dan data uji sebanyak 90 data. Penelitian ini dilakukan dengan mengamati variasi nilai ketetanggaan (K) dan *exp* (E) terhadap akurasi sistem klasifikasi demam. Hasil pelatihan menunjukkan bahwa nilai K dan E yang bervariasi tidak mempunyai pengaruh terhadap akurasi tersebut. Hasil pengujian yang dilakukan mendapatkan akurasi sebesar 100% pada setiap variasi nilai K dan E.

Kata kunci: Demam, DBD, Malaria, Demam *Tifoid*, *Neighbor Weighted K-Nearest Neighbor*.

ABSTRACT

Fever is a symptom of the body's response to an infection. Fever can be caused by a virus, a bacterial infection, or by mosquito bites. Several diseases that cause fever that need to be watched out for include dengue hemorrhagic fever (DHF), typhoid fever, and malaria, because the clinical symptoms of these three diseases are very similar and difficult to distinguish. As a result of similar symptoms, it often causes difficulties in getting an initial diagnosis, so it is not appropriate to handle it. Therefore, in this study, a system was developed that could classify fever using the neighbor-weighted K-nearest neighbor (NWKNN). The data used is 300, with a 70%:30% ratio of training to test data, so the training data is 210 and the test data is 90. This research was conducted by observing the variation in the values of neighborliness (K) and exp (E) on the accuracy of temperature classification. The training results show that the varying K and E values have no effect on accuracy. The results of the tests carried out obtained an accuracy of 100% for each variation in K and E values.

Keywords: *Fever, DHF, Malaria, Typhoid Fever, Neighbor Weighted K-Nearest Neighbor.*