UNIVERSITI TEKNOLOGI MARA

DIABETES PREDICTION SYSTEM USING CLONAL SELECTION ALGORITHM

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DECLARATION

I certify that this thesis and research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practiced of discipline.

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ABSTRACT

Diabetes Prediction system using clonal selection algorithm is available to test whether patients suffering from diabetes or not. The data included in the system is a tested and accurate data. Previously, the process of testing a patient suffering from diabetes tested manually. Results received by the patient are very slow and ineffective. Therefore, this system is established to help the hospital to reduce the time taken for each patient knows their decision.

There are many techniques that can be used to make prediction process but the technique that has been selected to be used for this system is Artificial Immune System. Artificial Immune System has three types of selection that can be used such as clonal selection, network selection and negative selection.

The prediction is done using Artificial Immune System technique where some of applicant's information is taken to predict and see whether they are predicted having diabetes or not. The first purpose for this prototype is to create or make prediction of some data to measure the accuracy rate that either with similar accuracy or better than manual process before this.

The result achieved after using this system may make the accuracy of prediction diabetes improved. The percentages of actual output same with the desired output is more than 80%. In the Artificial Immune System training, testing data is repeatedly done for the purpose to get the better memory cell value where it will be used to predict the future data.

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