

Informatics Institute of Technology in collaboration with

University of Westminster, UK.

“SDPS”

Smart Disease Predicting System using

Weather and Medical data.

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Abstract

Dengue and Leptospirosis have become serious issues in the present society. Variation of the weather acts as a common factor for both of these epidemics. Absence of a proper epidemic forecasting system is a critical problem in SriLankan medical sector. If a proper prediction on the upcoming case counts from the above-mentioned epidemics can be given, the death counts can be reduced as well as the cost which the government pays annually for these epidemics.

Developing a machine learning platform which can predict the upcoming infected case counts by the above mentioned two diseases is a timely solution. This platform uses classification machine learning algorithms for data mining purposes. The medical data regarding the case counts from the district hospitals can be taken as the factor to be predicted. And the weather data from the corresponding district can be taken as the helping factors for the prediction. The data regarding the Rainfall, maximum and minimum Humidity, Maximum and minimum Temperature have been taken as the weather data. The prediction has been taken using the Decision Tree algorithm which can be considered as a non-parametric supervised learning algorithm

Keywords: Machine Learning, Data Mining, Prediction, classification, Supervised Learning, Non-Parametric