**DENGUE FEVER PREDICTION USING MACHINE LEARNING**

****ABSTRACT:****

Dengue Fever (DF) is one of the most severe epidemiologic disease which is caused by blood-feeding mosquitoes and also most speedily increasing public health issues in tropical and subtropical regions which sometimes cause continual epidemics.

**EXSTING SYSTEM:**

The general symptoms of dengue are fever which includes joint pain, headache, vomiting, etc.; however, if Dengue is not detected at an early stage and experience severe bleeding and shock, which may even lead to death. Thus, increasing DF can be very severe and critical, turning out to be a global threat.

**PROPOSED SYSTEM:**

This paper proposes a model considering the severity of DF, named Dengue Fever Expert System using Machine Learning Analytic s (DFES-MLA) to explore the dengue data to predict the disease more efficiently considering only the symptomatic features. The dengue data set is imbalanced in nature. And therefore, the DFES-MLA model uses the 4 most prominent oversampling techniques namely SMOTE, Borderline SMOTE, ADASYN, Gaussian SMOTE to get rid of the class imbalance problem of the dengue data set. DFES-MLA model uses Decision Tree (DT) and Random Forest (RF) classifiers along with all the data pre-processing steps for DF prediction.