

Daranee Thitiprayoonwongse 2013: Data Mining on Dengue Virus Disease.

Master of Science (Computer Science), Major Field: Computer Science, Department of Computer Science. Thesis Advisor: Associate Professor Nuanwan Soonthornphisaj, Ph.D. 177 pages.

This study selected data mining algorithms in order to extract knowledge of Dengue Virus Disease datasets and answered the expert's questions. The datasets used in the study were the clinical data which obtained from patients. They were collected from 2001 to 2009. We selected 3 algorithms in this study. There were decision tree, fuzzy logic and artificial neural network for classification and prediction. In addition, we selected association rule for finding relation between attributes and classes. This study used sensitivity, specificity and accuracy as performance measurement. The experimental results showed the interesting attributes and interesting pattern in dengue classification with 97.4% of accuracy. In addition, we got 69.80% of accuracy in day0 prediction and the answers in expert's questions.

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Student's signature

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Thesis Advisor's signature