Medical Expert System for Analysing Heart Diseases in Sri Lanka

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Heart disease diagnosis in Sri Lankan most commonly depends on a complex combination of clinical data and patient health status histories. Diagnosis of disease is a vital and intricate job in medicine. In the Sri Lankan situation, diagnosing heart diseases are getting too long time for the best treatment outcome. In Sri Lanka, 40 % of mortalities are due to cardiovascular diseases. This makes severe problems for the majority of the population. Delay in decision making and proper record making are the major problems for the majority. There is no way of analyzing symptoms before the patient reaches to a doctor. In this research, main investigations were developed a heart disease diagnosis system that can assist medical professionals in predicting heart disease status based on the clinical data of patients and developed subsystems for general public to make more aware about heart diseases. There are a lot of Artificial Intelligence (AI) techniques to determine diagnoses. After comparisons were made between those techniques, Rule-Base technique is chosen to diagnose heart disease. This research consists of two main parts as an expert system and a java web application. The expert system acts as inference engine with the expert knowledge of the specialists and java web application act as a user interface between users and the expert system. This system presents a web base Java application to make it accessible for all type of users. Main objectives of this system are diagnosing the heart disease effectively and predicting the disease type by symptom analyzing and heart-related medical product advertising by medical representatives.

Keywords: Expert system, Heart disease, Inference engine

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