Development Of An Expert Tool Using Principal Component Analysis (PCA) Approach: For Identifying Human Diseases & Its Severity

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Abstract

Detecting diseases at early stage can enable to overcome and treat them appropriately. Identifying the treatment accurately depends on the method that is used in diagnosing the diseases. An expert tool can help a great deal in identifying those diseases and describing methods of treatment to be carried out taking into account the user capability in order to deal and interact with expert tool, easily and clearly. Present expert system uses inference rules and plays an important role that will provide certain methods of diagnosis for treatment.

In this paper to analyze a disease we consider three important factors. One analysis with age factor, one analysis with pregnancy factor (in case of a women), and one analysis with duration factor (in case of chronically illness) finally considering all the three factor
association in the diagnosis of a human diseases[4]. The analysis of variables is to identify the
dimension that is latent, it means finding the severity of the diseases and explaining the
appropriate treatment as per Indian Pharmacopoeia Standards . That can be considered in the
phenomena of performance correlation. This is to study the effects in the developed principal
components analysis (PCA) approach.

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Index Terms

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Key words

Fuzzy logic

Expert System

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Eigen vector
PCA