Abstract

Artificial Neural Network is a branch of Artificial intelligence, has been accepted as a new technology in computer science. Neural Networks are currently a 'hot' research area in medicine, particularly in the fields of radiology, urology, cardiology, oncology and etc. It has a huge application in many areas such as education, business; medical, engineering and manufacturing .Neural Network plays an important role in a decision support system. In this paper, an attempt has been made to make use of neural networks in the medical field (carcinogenesis (pre-clinical study)). In carcinogenesis, artificial neural networks have been successfully applied to the problems in both pre-clinical and post-clinical diagnosis. The main aim of research in medical diagnostics is to develop more cost-effective and easy–to-use systems, procedures and methods for supporting clinicians. It has been used to analyze demographic data from lung cancer patients with a view to developing diagnostic algorithms
that might improve triage practices in the emergency department. For the lung cancer diagnosis problem, the concise rules extracted from the network achieve an high accuracy rate of on the training data set and on the test data set.

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Index Terms

Computer Science
Decision Support

Systems

Key words

Neural networks
fuzzy logic
carcinogenesis
lung cancer
rule extraction
back propagation
medical decision making
decision support systems