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## Patent Search

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#### Abstract:

Prediction of Chronic Kidney Disease Using Support Vector Machines and Artificial Neural Networks ABSTRACT: The healthcare sector accumulates substantial quantitative healthcare data that, regrettably, are not adequately utilised to uncover latent insights for the purpose of conducting thorough analysis, generating accurate diagnoses facilitating informed decision-making. The identification of concealed patterns and correlations frequently remains dormant. Advanced data mining techniques have to offer assistance and provide solutions for addressing this particular scenario. Data mining refers to the systematic extraction of concealed information from large datasets. Data mining encompasses a range of techniques, including clustering, classification, association analysis, regression, summarization, time series analysis, and analysis, among others. Data mining techniques are of great importance in various sectors, including text mining, graph mining, medical mining, multimedia mining, and mining. The primary aim of this research endeavour is to employ Support Vector Machine (SVM) and Artificial Neural Network (ANN) methodologies for the purpose of kidney disorders. The objective of this study is to evaluate and compare the performance of two algorithms in terms of their accuracy and execution time. Based on the experimental findings, it is evident that the artificial neural network (ANN) exhibits superior performance compared to other algorithms.

#### Complete Specification

##### Description:DESCRIPTIONS

Kidney illnesses encompass a range of abnormalities that impact the normal functioning of the kidney. In the advanced phases, renal disorders have the potential to result in the condition of renal failure. Based on the most recent statistics given by the Saudi Centre of Organ Transplantation Registry, a total of 10,203 patients who have been diagnosed with renal disease are undergoing hemodialysis treatment. The prevalence of chronic kidney disease (CKD) has been on the rise due to factors such as diabetes, hypertension, and the adoption of unhealthy lifestyles. Individuals diagnosed with chronic kidney disease (CKD) have a range of adverse symptoms. The aforementioned difficulties encompass impairments to both the neurological and immunological systems, resulting in disruptions to routine everyday tasks. In order to mitigate the occurrence of Chronic Kidney Disease (CKD), the application of machine learning methodologies can be employed to facilitate the early detection and diagnosis of CKD. Artificial Neural Network (ANN) and

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