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Patent Search

Invention Title	ARTIFICIAL INTELLIGENCE BASED SYSTEM FOR PREDICTION AND PREVENTION OF KIDNEY DISEASE USING MACHINE LEARNING ALGORI
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Abstract:

The present invention relates to provide an Artificial Intelligence based system for prediction and prevention of kidney disease using machine learning algorithms. It employs cutting-edge machine learning algorithms and sets itself apart from previous research through its distinctive approach, extensive dataset, and refined prediction precision. By integrating deep learning and ensemble methods, the AI system analyzes complex patterns within a comprehensive dataset, encompassing diverse medical parameters. Unlike previous efforts that focused on limited features, this system encompasses a broader range of patient attributes, creating holistic profiles using structured electronic health records and unstructured clinical notes and imaging data. Its unique strength lies in its adept utilization of longitudinal patient records and time-series data, enhancing accuracy and revealing nuanced disease trends. This system emphasizes proactive prevention, combining real-time monitoring and personalized recommendations to identify risk factors promptly. With explainable AI techniques, it empowers informed clinical decisions and offers personalized prevention plans through a user-friendly interface.

Complete Specification

Description: Technical field of invention:

The present invention relates to provide an Artificial Intelligence based system for prediction and prevention of kidney disease using machine learning algorithms.

Background:

In the realm of healthcare technology, an innovative Artificial Intelligence (AI) system emerges, focusing on predicting and preventing kidney disease through advanced machine learning algorithms. This novel approach integrates diverse patient data, including longitudinal records and temporal trends, enabling proactive identification of risk factors. Unlike previous research, this system not only predicts disease progression but also offers personalized prevention strategies, bridging the gap between prediction and intervention. With a user-friendly interface for healthcare professionals and patients, it represents a significant leap forward in enhancing kidney health management through AI-driven insights.

Groupings of alternative elements or embodiments of the invention disclosed herein are not to be construed as limitations. Each group member can be referred to claimed individually or in any combination with other members of the group or other elements found herein. One or more members of a group can be included in, or deleted from, a group for reasons of convenience and/or patentability. When any such inclusion or deletion occurs, the specification is herein deemed to contain the

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