

Predictive Smart Health Care System: Leveraging Machine for Early Detection

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Abstract: *The rising mortality and disability rates in India and globally can largely be attributed to chronic diseases, including heart disease, cancer, diabetes, stroke, and arthritis. Non-communicable diseases (NCDs) account for a significant portion of deaths, surpassing other disease categories. Annually, around 5.8 million individuals in India succumb to NCDs, with a global figure of approximately 41 million. Addressing chronic diseases necessitates a focus on both investment and preventive measures, making it crucial to find effective solutions. Effective management of these conditions involves early diagnosis, comprehensive patient care, and supportive services. However, the vast amount of medical data generated presents a formidable challenge in data management. Deep learning, a branch of machine learning, plays a pivotal role in the healthcare sector by enabling the analysis of large datasets. Various diagnostic technologies leverage deep learning to enhance treatment strategies for chronic diseases, ultimately aiming to reduce mortality rates.*

Keywords: Chronic, Diagnosis, Detection, Healthcare, Prediction, Deep Learning, Machine Learning.