**AI -Driven Diagnostic System for Detection of Chronic Diseases**



A Project report submitted in partial fulfillment of requirements for the award of degree of

**BACHELOR OF TECHNOLOGY IN**

**COMPUTER SCIENCE AND ENGINEERING (AI & ML)**

**By**

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**G. PULLA REDDY ENGINEERING COLLEGE (Autonomous): KURNOOL**

**(Affiliated to JNTUA, ANANTHAPURAMU)**

**2024 – 2025**



**Department of Emerging Technologies in Computer Science**

**G. PULLA REDDY ENGINEERING COLLEGE (Autonomous): KURNOOL**

**(Affiliated to JNTUA, ANANTHAPURAMU)**

**CERTIFICATE**

***This is to certify that the Project Work entitled* ‘*AI -Driven Diagnostic System for Detection of Chronic Diseases*’ *is a bonafide record of work carried out by***

**ADIKE ARUN KUMAR (219X1A3333)**

Under my guidance and supervision in partial fulfillment of the requirements for the award of degree of

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING (AI & ML)**

|  |  |
| --- | --- |
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| **Signature of the External Examiner** | **: ……………………………..** |

**DECLARATION**

I are hereby declare that the project titled “**AI -Driven Diagnostic System for Detection of Chronic Disease**” is an authentic work carried out by me as the students of **G. PULLA REDDY ENGINEERING COLLEGE (Autonomous) Kurnool,** during 2024-25 and has not been submitted elsewhere for the award of any degree or diploma in part or in full to any institute.

**ADIKE ARUN KUMAR**

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**ABSTRACT**

Artificial intelligence (AI) has the potential to significantly improve patient outcomes and diagnostic accuracy in the quickly developing sector of healthcare. The goal of this project is to create an AI-powered diagnostic assistance system that will help medical practitioners identify chronic illnesses including cancer, heart disease, and diabetes at an early stage. In order to find patterns suggestive of an early disease onset, the system will use sophisticated machine learning algorithms to evaluate patient data, including medical history, test results, and imaging data. The system will offer actionable insights and risk assessments to improve decision-making and enable prompt intervention by fusing real-time data processing and predictive analytics. To achieve high accuracy and generalizability, the research will concentrate on building a solid model that has been trained on a variety of datasets. To improve accessibility and expedite productivity, the system will also be built to seamlessly interact with current electronic health record (EHR) systems. The anticipated outcome is a tool that helps to enhance patient care and outcomes by lowering the workload of medical practitioners and increasing diagnostic precision.

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