**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**

**ADENNAGARI BHARATH (219X1A3332)**

**ADIKE ARUN KUMAR (219X1A3333)**

**V.SAI CHARAN (219X1A3364)**

**Under the esteemed guidance of Smt. K. Asha Rani**

**Assistant Professor Department of E.C.S**

**Department of Emerging Technologies in Computer Science**

**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***

**ADENNAGARI BHARATH (219X1A3332)**

**ADIKE ARUN KUMAR (219X1A3333)**

**V.SAI CHARAN (219X1A3364)**

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

**BACHELOR OF TECHNOLOGY**

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|  |  |
| --- | --- |
| **Smt. K. Asha Rani** Assistant Professor, Department of ECS.,  G. Pulla Reddy Engineering College, Kurnool. | **Dr. R. Praveen Sam**  Professor & Head of the Department, Department of ECS.,  G. Pulla Reddy Engineering College, Kurnool. |
| **Signature of the External Examiner** | **: ……………………………..** |

**DECLARATION**

We are hereby declare that the project titled “**AI -Driven Diagnostic System for Detection of Chronic Disease**” is an authentic work carried out by us 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.

**ADENNAGARI BHARATH (219X1A3332)**

**ADIKE ARUN KUMAR (219X1A3333)**

**V.SAI CHARAN**

**(219X1A3364)**

**ACKNOWLEDGEMENT**

We wish to express my deep sense of gratitude to my project guide **Smt.** [**K. Asha Rani**](https://www.gprec.ac.in/images/ecs%20profiles/AshaRani.pdf), **Assistant Professor** of Emerging Technologies in Computer Science Department, G. Pulla Reddy Engineering College, for her immaculate guidance, constant encouragement and cooperation which have made possible to bring out this project work.

We are grateful to my project in charge **Smt.** [**K. Asha Rani**](https://www.gprec.ac.in/images/ecs%20profiles/AshaRani.pdf)**, Assistant Professor** of Emerging Technologies in Computer Science Department, G. Pulla Reddy Engineering College, for helping us and giving us the required information needed for our project work.

We are thankful to my Head of the Department **Dr. R. Praveen Sam Garu**, for his whole hearted support and encouragement during the project sessions.

We are grateful to our respected Principal **Dr. B. Sreenivasa Reddy Garu,** for providing requisite facilities and helping me in providing such a good environment.

We wish to convey my acknowledgements to all the staff members of the Emerging Technologies in Computer Science department for giving the required information needed for our project work.

Finally, we wish to thank all my friends and well wishers who have helped us directly or indirectly during the course of this project work.

**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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