Diagnosis of Acute Diseases in Villages and Smaller Towns Using AI

A PROJECT REPORT

Submitted by

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Under the guidance of

Dr. SASIDHAR BABU SUVANAM

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

PRESIDENCY UNIVERSITY

BENGALURU

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PRESIDENCY UNIVERSITY
SCHOOL OF COMPUTER SCIENCE ENGINEERING
CERTIFICATE

This is to certify that the Project report **"DIAGNOSIS OF ACUTE DISEASES IN VILLAGES AND SMALL TOWNS USING AI"** being submitted by **"DUGASANI MEGHANA, VENKATA SAI MEGHANA, VENKATA KASI VYSHNAVI, VIJAYA KUMARI, HRUSHIKESH REDDY"** bearing Roll number(s) "20211CAI0023, 20211CAI0049, 20211CAI0149, 20211CAI0012, 20211CAI0022" in partial fulfilment of requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede work carried out under my supervision.

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **"Diagnosis of acute diseases in villages and smaller towns using AI"** in partial fulfilment for the award of Degree of **Bachelor of Technology in Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **Dr. Sasidhar Babu Suvanam, Professor, School of Computer Science Engineering, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

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ABSTRACT

The project, **"Diagnosis of Acute Diseases in Villages and Smaller Towns Using AI,"** addresses the critical issue of limited access to healthcare resources in rural and semi-urban areas. In these regions, the shortage of skilled medical professionals and diagnostic facilities often leads to delayed diagnosis and treatment of common acute diseases, posing significant health risks. This project leverages artificial intelligence (AI) to provide a fast, user-friendly, and cost-effective solution for preliminary diagnosis.

The system is designed as a web application that allows users to input symptoms such as age, body temperature, cough, fatigue, sore throat, headache, and nausea. It employs a rule-based AI model to analyze these symptoms and provides an instant diagnosis of potential conditions such as flu, common cold, stomach infection, or migraine. The application integrates a feedback mechanism to continuously improve its usability and diagnostic accuracy based on user input.

The project focuses on creating an accessible interface for non-technical users, with a clean and responsive design. It uses Django, a robust web development framework, to handle form submissions, manage AI logic, and render dynamic web pages. The form-based symptom collection process ensures simplicity and inclusivity, catering to a diverse demographic with varying levels of digital literacy. Moreover, the feedback mechanism allows users to rate the diagnosis's helpfulness and provide suggestions, fostering user engagement and enabling iterative improvements to the system.