**AN INTERACTIVE WEB APPLICATION FOR**

**MENTAL WELL BEING**

***A Project report submitted to***

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

**ANANTAPUR, ANANTHAPURAMU**

***In partial fulfillment of the requirements for the award of the degree of***

**BACHELOR OF TECHNOLOGY**

***In***

**ARTIFICIAL INTELLIGENCE & DATA SCIENCE**

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**2024-2025**

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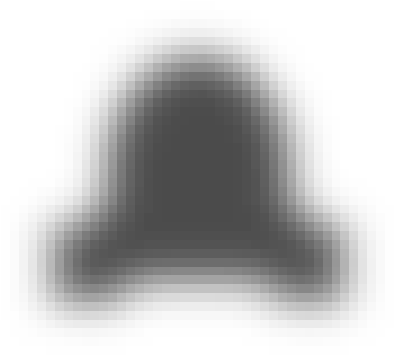
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# Certificate

This is to certify that Project work entitled “ **AN INTERACTIVE WEB APPLICATION FOR MENTAL WELL BEING”** is a bonafide work carried out by

**N HEMANTH (218P1A3018), P VEERENDRA (218P1A3055), T PRABHAS (218P1A3029), M BHARATH KUMAR (218P1A3006)** fulfillment of the requirements for the award of degree of Bachelor of Technology in Artificial Intelligence & Data Science of the **Jawaharlal Nehru Technological University Anantapur, Ananthapuramu** during the academic year 2024-25. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the Degree of Bachelor of Technology in Artificial Intelligence & Data Science.



## Project Guide Head of the Department Principal

Submitted for the university Viva – Voice Examination held on

**INTERNAL EXAMINER EXTERNAL EXAMINER**

## DECLARATION

We, **N HEMANTH, P VEERENDRA, T PRABHAS, M BHARATH KUMAR** hereby declare that the Project Work entitled **“AN INTERACTIVE WEB APPLICATION FOR MENTAL WELL BEING” ,** is a bonafide work done by us under the guidance of **P. CHANDRA SEKHAR, *M. Tech., (Ph.D.)*,** submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Artificial Intelligence & Data Science, **Aditya College of Engineering, Madanapalle** affiliated to **Jawaharlal Nehru Technological University Anantapur, Ananthapuramu,** during the academic year 2024-25. The results embodied in this project report have not been submitted to any other University or Institute for the award of any degree or diploma.

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## ACKNOWLEDGEMENT

It is our privilege and pleasure to express our profound sense of respect gratitude and indebtedness to **Dr. S. RAMALINGA REDDY, Director** for guiding and providing facilities for the successful completion of our project work.

It is our privilege and pleasure to express our profound sense of respect gratitude and indebtedness to **Dr. K. SATHISH BABU, Principal** for guiding and providing facilities for the successful completion of our project work.

We sincerely thank to **Dr. R. MD. SHAFI, M.Tech., Ph.D., Professor & Head, Department of AI & DS** for his valuable support and constant encouragement given to us during this work.

We sincerely thank to **P. CHANDRA SEKHAR, M.Tech., (Ph.D.) Associate Professor, Department of AI & DS** for his valuable support and constant encouragement given to us during this work.

Last but not least, we wish to acknowledge **Our Parents** and friends for giving moral strength and encouragement.

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## ABSTRACT

In the contemporary landscape where mental well-being is paramount, the integration of technology into wellness practices offers innovative solutions to enhance personal health regimes. This project, "Interactive Web Application for Mental Well-Being," aims to develop a comprehensive platform that synergizes personalized yoga practice with an emotion-aware chatbot to promote holistic health. The system comprises two primary modules: Yoga and Chatbot. The

Yoga Module begins by assessing the user’s current emotional state through a selection of 19 predefined moods. Based on this input, the system recommends three tailored yoga poses from a dataset of 77 poses designed to address specific emotional needs. To ensure correct pose execution, the module employs advanced computer vision techniques, utilizing the YOLO (You Only Look Once) model for accurate pose detection and PoseNet for extracting key joint features. An angle heuristic algorithm analyzes the user’s posture, providing real-time corrective feedback to enhance the effectiveness and safety of the practice. Complementing the Yoga Module, the Chatbot Module engages users by recognizing and responding to 59 distinct emotions. Through an intuitive conversational flow, the chatbot inquires about the reasons behind the user’s emotions, offers empathetic support, and recommends relevant YouTube videos to aid in emotional regulation. Postinteraction, the chatbot gathers feedback to refine its responses, ensuring a personalized and supportive user experience. By combining personalized physical activity with emotional support, this web application provides a unique and effective tool for individuals seeking to improve their mental and physical well-being.

**Keywords:** AI-Powered, Mental Well-being, Interactive Web Application, Mood-based Yoga Recommendation, Real-time Pose Correction, PoseNet, YOLOv3, SVD Recommendation System, Emotion Detection, Natural Language Processing (NLP), Rule-Based Chatbot, Empathetic Interaction, Computer Vision, Deep Learning, Personalized Feedback

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