VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI -590 014

Project phase-1 Report

on

"VITAMIN DEFICIENCY DETECTION USING IMAGE PROCESSING AND NEURAL NETWORK"

Submitted by:

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PROJECT GUIDE

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2023-2024

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

S.J.M Vidyapeetha®

Sri Jagadguru Mallikarjuna Murugharajendra Institute of Technology

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the Project Work Phase-1 (18CSP77) entitled "**VITAMIN DEFICIENCY DETECTION USING IMAGE PROCESSING AND NEURAL NETWORK**" is a bonafide work carried out by **LIKHITH KUMAR V (4SM20CS029), PRASAD C R V (4SM20CS050), RAHUL R C (4SM20CS055) and SANDEEP M N (4SM20CS067),** in partial fulfillment for the VII semester of Bachelor of Engineering in Computer Science & Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2023-2024. It is certified that all corrections/suggestions indicated for the Internal Assessment have been incorporated in the report deposited in the departmental library. The project phase-1 report has been approved as it is satisfies the academic requirements in respect to project phase-1 prescribed for the VII semester Bachelor of Engineering.

.....

Signature of the Guide

Prof. Vinayaka V M B.E, M.Tech,
Asst. Prof., Dept. of CS & E,
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Signature of the Coordinator

Prof. Ramesh B E MCA, M.Tech,
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Signature of the HOD

Prof. Poral Nagaraj B.E, M.Tech,
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SELF DECLARATION PAGE

We hereby declare that the project work phase-1 entitled **"VITAMIN DEFICIENCY DETECTION USING IMAGE PROCESSING AND NEURAL NETWORK"** submitted by us to S.J.M Institute of Technology. We in partial fulfillment of the requirement for the award of the VII semester of B.E. in **COMPUTER SCIENCE AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** is a record of bonafide project work carried out by us under the guidance of **Prof. Vinayaka V M** **B.E., M.Tech.** We further declare that the work reported in the project phase-1 has been submitted and will not be submitted, either in part or in full, for the award of VII semester in this institution.

Date: Signature of the Candidates

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the completion of any task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement ground my efforts with success.

We consider it as a privilege to express our gratitude and respect to all those who guided us in completion of project work phase-1.

We will remain indebted forever to all the ***Management Authorities of SJM Vidyapeetha(R), Sri Bruhanmatha, Chitradurga*** and support for carrying out this project work phase-1 successfully.

We extend our sincere and heartful thanks to **Dr. Bharath P B** **M.Tech., Ph.D.,** **Principal,** and **Prof. Poral Nagaraj** **B.E, M.Tech.,** **HOD,** ***Department of Computer Science and Engineering,*** for providing me the right ambience, constant inspiration and support for carrying out this project work phase-1 successfully.

We profoundly indebted to our Project Guide **Prof. Vinayaka V M** **B.E, M.Tech.,** and Project Coordinator **Prof. Ramesh B E** **M.C.A, M.Tech.,** ***Department of Computer Science & Engineering***, for innumerable acts of timely advice, encouragement and we sincerely express our gratitude to them.

We express our enormous pleasure and thankfulness to all teaching and non-teaching staff of the ***Department of Computer Science & Engineering.***

Project Associates:

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ABSTRACT

Our ongoing project involves the development of an Android app with a primary focus on the early detection of vitamin deficiencies. Users can conveniently capture images of specific body parts such as eyes, lips, tongue, and nails through the app, receiving preliminary advice on potential deficiencies. The app is meticulously designed to be user-friendly, cost-effective, and economically accessible, ensuring widespread usability. However, it is crucial for users to understand that the app is not a substitute for professional healthcare guidance. Seeking advice from healthcare professionals remains paramount for accurate diagnoses and tailored recommendations. Our overarching goal is to deliver a practical and accessible tool that not only helps users become more aware of their nutritional needs but also empowers them to take proactive steps towards maintaining their health and preventing potential deficiencies.

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