

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-560014, Karnataka



A PROJECT REPORT ON

***"DETECTION OF ALZHEIMER'S AND ITS STAGES USING
CNN ALGORITHM"***

*SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE DEGREE*

**BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING**

Submitted By

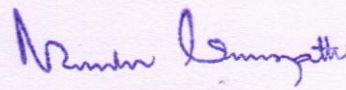
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2021-22



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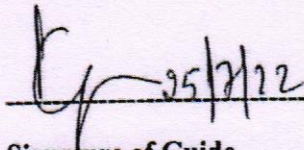


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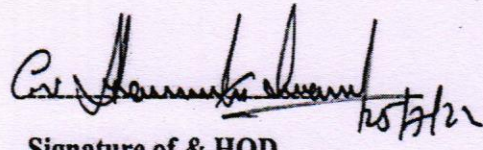
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

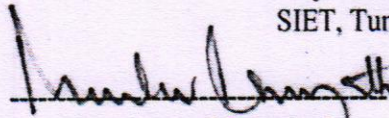
This is to certify that, the project entitled "**DETECTION OF ALZHEIMER'S AND ITS STAGES USING CNN ALGORITHM**" has been successfully carried out by Navya S [ISV17CS027], Lavanya T A [ISV18CS023], Shraddha S [ISV18CS038], Vijayalakshmi [ISV18CS045], in partial fulfillment for the award of **Bachelor of Engineering in Computer Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2021-22**. It is certified that all the corrections/suggestions indicated for internal assessments have been incorporated in the report. The project report has been approved as it certifies the academic requirements in respect of **Project work-II** prescribed for the Bachelor of Engineering Degree.


25/7/22

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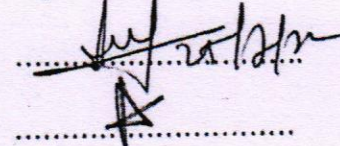


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Name of the Examiners

1. **Shanmukaswamy C V**
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Signature with date

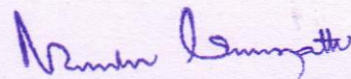

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ABSTRACT

Alzheimer disease (AD) is a neurological disorder. For the AD, there is no specific treatment. Early detection of Alzheimer disease can help patients receive the correct care. Many studies employ statistical and machine learning techniques to diagnose AD. The human-level performance of Deep Learning algorithms has been effectively shown in different disciplines. In the proposed methodology, the MRI data is used to identify the AD and Deep Learning technique is used to classify the present disease. The classification of Alzheimer's disease using Deep Learning methods as shown promising results, and successful application in clinical settings requires a combination of high accuracy, short processing time, and generalizability to various populations. In this study, we developed a system of Alzheimer's disease detection using Convolutional Neural Network (CNN) architecture using magnetic resonance imaging (MRI) scans images which are trained on the same dataset in order to analyse their performance. The Convolutional Neural network (CNN) architecture gives the highest accuracy where training accuracy is 86.34% and validation accuracy is 86.45% on the test data that detect AD accurately.



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