A Group-Project Report on

**Brain Stroke Prediction Using Data Science and Machine Learning**

Submitted to the Dept. of Information Technology, SNIST

in the partial fulfillment of the academic requirements for the award of

**B.Tech (Information Technology)**

under JNTUH

by

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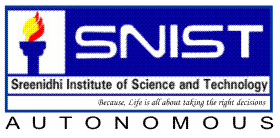
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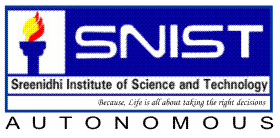
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**2020–21**

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**Certificate**

This is to certify that the Group-Project report on “Brain Stroke Prediction Using Data Science and Machine Learning” is a Bonafide work carried out by Anil.M (17311A1289), Abhinay.L (17311A12A7), Venkatesh.V (17311A12A8) in the partial fulfillment for the award of B-Tech degree in Information Technology, Sreenidhi Institute of Science and Technology, Hyderabad, affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH), Hyderabad under our guidance and supervision.

The results embodied in the Group-Project work have not been submitted to any other University or Institute for the award of any degree or diploma.

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**DECLARATION**

We, **Anil.M(17311A1289), Abhinay.L(17311A12A7) and Venkatesh.V (17311A12A8),** students of **Sreenidhi Institute of Science and Technology, Yamnampet, Ghatkesar,** studying IVth year IInd semester, **Information Technology** solemnly declare that the Group project work, titled **“Brain Stroke Prediction Using Data Science and Machine Learning”** is submitted to **Sreenidhi Institute of Science and Technology** for partial fulfillment for the award of degree of Bachelor of technology in **Information Technology**.

It is declared to the best of our knowledge that the work reported does not form part of any dissertation submitted to any other University or Institute for award of any degree.

**Acknowledgements**

We would like to express our immense gratitude and sincere thanks to **Ms.N.Sreevidya, Asst.Professor** in Information Technology for her guidance, valuable suggestions and encouragement in completing the Group-Project work within the stipulated time.

We would like to express our sincere thanks to **Dr. P. Narasimha Reddy**, Executive Director, **Dr. T. Ch. Siva Reddy**, Principal, **Dr. V. V. S. S. S. Balaram,** Professor & Head of the Department of Information Technology, **Ms.N.Sreevidya**, Associate Professor & Group-Project Work Coordinator of the Department of Information Technology, Sreenidhi Institute of Science and Technology (An Autonomous Institution), Hyderabad for permitting us to do our Group-Project work.

Finally, we would also like to thank the people who have directly or indirectly helped us and parents and friends for their cooperation in completing the Group-Project work.

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**Abstract**

**BRAIN STROKE PREDICTION USING ML AND DATA SCIENCE**

Stroke is one of the leading causes of the death worldwide these days. About 1/5th of patients with an acute stroke dies within a month of event and at least 1/2 of those who survive are left with physical disability. As we study some stats, we can see that, there are 15 million people worldwide who suffer a stroke each year. According to the World Health Organization (WHO), stroke is the second leading cause of death for people above the age of 60 years, and the fifth leading cause in people aged 15 to 59 years old. Each year, nearly six million people worldwide die from stroke. One in six people worldwide will have a stroke in their lifetime. Every six seconds, stroke kills some. As the study suggests hypertension remained the most common risk factor for Stroke followed by Smoking and diabetes Mellitus and dyslipidemia. Infact Strokes continues to play and pivotal role in killing as many humans getting killed by Aids, Tuberculosis and Malaria combined. So, brain stroke is a medical emergency and can lead to death or permanent disability. One needs to react fast and need to get emergency medical attention by calling to 1-0-8 or 9-1-1(International). According to the World stroke organization reports of the year 2019 suggests that,

1. Brain Attacks devastates lives around the world.
2. 13.7 M new strokes each year.
3. 80M stroke survivors worldwide.
4. 5.5M death due to stroke each year.
5. 1 in 4 people over age 25 will experience stroke in their lifetime.

So, as a group we came up with an idea of fine tuning the dataset collected form Kaggle datasets and build a predictive model to estimate whether a person is suffering from a brain stroke or not.

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