**JSS COLLEGE OF ARTS, COMMERCE & SCIENCE**

**An Autonomous College, Affiliated to University of Mysore**

**Re-accredited by NACC with ‘A’ Grade,**

**Ooty Road, Mysuru – 570 025**



A

Project Report

On

**“DIABETICS PREDICTION USING MACHINE LEARNING”**

**Submitted in the partial fulfillment of the requirements for the award of**

**IV Semester**

**Master of Computer Science**

**Submitted By**

**BHOOMIKA G U (P01BE21S0043)**

Under the guidance of

**Smt. Shruthi K**

**Assistant Professor**

**PG Department of Computer Science**

**JSS College of Arts, Commerce and Science, Mysuru – 570 025**

**2022 – 2023**

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**CERTIFICATE**

This is to certify that **Bhoomika G U (P01BE21S0043)** has successfully completed her project entitled **“DIABETES PREDICTION USING MACHINE LEARNING”** and submitted the report in partial fulfillment of the requirement of **IV Semester, Master in Computer Science by JSS College of Arts, Commerce and Science, Mysuru,** during the academic year **2022 - 2023.** It is certified that all corrections and suggestions indicated for the internal assessment have been incorporated in the report. This report has been approved as it satisfies the academic requirements in respect of project work prescribed for IV Semester M.Sc.

**Signature of the Guide Signature of the HOD**

**VALUED**

**Name and Signature of the Examiners:**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**DECLARATION**

I, **Bhoomika G U (P01BE21S0043)** hereby declare that the project entitled **“DIABETES PREDICTION USING MACHINE LEARNING”** submitted to the **JSS College of Arts, Commerce and Science, Ooty Road, Mysuru (Affiliated to University of Mysore)** during the academic year **2022- 2023**, is a record of an original work done by me under the guidance of **Smt. Shruthi K**, Asst. Professor, PG Department of Computer Science.

**Date: Candidate Name with Signature**

**Place:** Mysuru

**Bhoomika G U (P01BE21S0043)**

**ACKNOWLEDGEMENT**

I would like to express high regard to our college **JSS COLLEGE OF ARTS, COMMERCE AND SCIENCE, MYSURU** for grooming us all these years. The support given by respected Principal **Dr**. **S** **Prathiba** is highly memorable.

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I wish to express my heartfelt sincere gratitude to the internal guide **Smt. Shruthi K**, Assistant Professor, PG Department of Computer Science, JSS College, Mysuru for her valuable suggestion and support.

Finally, I would like to thank all the faculty members of the Department of Computer Science, for their support.

**Bhoomika G U (P01BE21S0043)**

**ABSTRACT**

Diabetes is a chronic disease with the potential to cause a worldwide health care crisis. According to International Diabetes Federation 382 million people are living with diabetes across the whole world. By 2035, this will be doubledas 592 million. Diabetes is a disease caused due to the increase level of blood glucose. This high blood glucose produces the symptoms of frequent urination, increased thirst, and increased hunger. Diabetes is a one of the leading cause of blindness, kidney failure, amputations, heart failure and stroke. When we eat, our body turns food into sugars, or glucose. At that point, our pancreas is supposed to release insulin. Insulin serves as a key to open our cells, to allowthe glucose to enter and allow us to use the glucose for energy. But with diabetes, this system does not work. Type 1 and type 2 diabetes are the most common forms of the disease, but there are also other kinds, such as gestational diabetes, which occurs during pregnancy, as well as other forms. Machine learning is an emerging scientific field in data science dealing with the ways in which machines learn from experience

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