

PREDICTING HOSPITAL READMISSION FOR PATIENTS WITH DIABETES
A Industrial/Practical Training project report

Submitted to the Faculty of Engineering of
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA,
KAKINADA

In partial fulfillment of the requirements for the award of the Degree of

BACHELOR OF TECHNOLOGY
In
COMPUTER SCIENCE AND ENGINEERING
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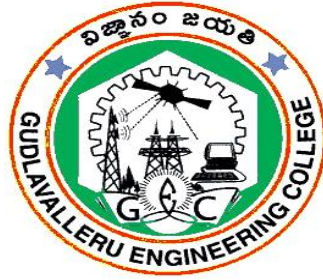
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2019-2020

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CERTIFICATE

This is to certify that the Industrial/Practical Training project Report entitled “**PREDICTING HOSPITAL READMISSION FOR PATIENTS WITH DIABETES**” is a bonafide record of work carried out by **A.K.V.S.N.PAVAN, A.DIVYA, B.NISHA and A.SAI VINAY KUMAR** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science and Engineering of Jawaharlal Nehru Technological University Kakinada, Kakinada** during the academic year 2019-2020.

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INTERNSHIP REPORT APPROVAL FORM

May 24, 2019

With immense pleasure, this is to approve that the students of Gudlavalleru Engineering College i.e,

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successfully completed their Project and Project Report on **“Diabetes Prediction”** under our guidance.

We are highly impressed with the work that they have done and commend them on their quick grasping skills. They have shown good intent to learn and have put the knowledge gained into application in the form of this project. We appreciate the hard work and commitment shown by them.

We, hereby approve that this document is completely checked and accepted by SmartBridge Technical Team. It has been an absolute pleasure to educate and mentor these students. We hope that this document will also serve as a Letter of Recommendation, to whomsoever applied.

We wish them success in all future endeavors and a great career ahead.

Akshay kumar Kothuri
AI and IOT Developer

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of people who made it possible and whose constant guidance and encouragements crown all the efforts with success.

We feel elated to express our floral gratitude and sincere thanks to **Dr.S.Narayana**, Head of the Department, Computer Science and Engineering for his encouragements all the way during analysis of the project. His annotations, insinuations and criticisms are the key behind the successful completion of the project work.

We would like to take this opportunity to thank our beloved principal **Dr.P.Ravindra Babu** for providing a great support for us in completing our project and giving us the opportunity for doing project.

We would like to take this opportunity to thank Smart Bridge Educational Services PVT Ltd. for providing this training program and support for us in completing our project.

Our Special thanks to the faculty of our department and programmers of our computer lab. Finally, we thank our family members, non-teaching staff, attendants and our friends, who had directly or indirectly helped and supported us in completing our project in time.

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ABSTRACT

It is estimated that 9.3% of the population in the United States have diabetes mellitus (DM), 28% of which are undiagnosed. The high prevalence of DM makes it a common comorbid condition in hospitalized patients. In recent years, government agencies and healthcare systems have increasingly focused on 30-day readmission rates to determine the complexity of their patient populations and to improve quality. Thirty-day readmission rates for hospitalized patients with DM are reported to be between 14.4 and 22.7%, much higher than the rate for all hospitalized patients (8.5–13.5%). The objectives of this study were to (1) determine the incidence and causes of 30-day readmission rates for patients with diabetes listed as either the primary reason for the index admission or with diabetes listed as a secondary diagnosis compared to those without DM and (2) evaluate the impact on readmission of two specialized inpatient DM services: the Hyperglycemic Intensive Insulin Program (HIIP) and Endocrine Consults (ENDO).

INDEX

TITLE	PAGE NO
ABSTRACT	
CHAPTER 1: INTRODUCTION	1
1.1: INTRODUCTION	1
1.2: OBJECTIVE OF RESEARCH	3
1.3: PROBLEM STATEMENT	3
1.4: INDUSTRY PROFILE	4
CHAPTER 2: REVIEW OF LITERATURE	5
CHAPTER 3: DATA COLLECTION	6
CHAPTER 4: METHODOLOGY	7
4.1: EXPLORATORY DATA ANALYSIS	7
4.1.1: FIGURES AND TABLES	8
4.2 STATISTICAL TECHNIQUES AND VISUALIZATION	10
4.3 DATA MODELING AND VISUALIZATION	11
CHAPTER 5: FINDINGS AND SOLUTIONS	13
CHAPTER 6: CONCLUSION	14