

A Mini Project Report
on
**DIGITAL MARKETING USING ARTIFICIAL
INTELLIGENCE**

Submitted in partial fulfilment of the academic requirement
For the award of the degree of
BACHELOR OF TECHNOLOGY

In
**Department of Computer Science and Engineering (Artificial
Intelligence and Machine Learning)**
by

N.Bharghavi-22B61A6640

S.Sai Mohith-22B61A6658

Y.Murari Sai-22B61A6663

Under the Esteemed Guidance of
Mr.B.Krishna Kumar

Assistant professor



NALLA MALLA REDDY ENGINEERING COLLEGE
An Autonomous Institution
(Approved by AICTE, New Delhi and Affiliated to JNTUH)
Accredited by NAAC with "A" Grade
Divya Nagar, Malkajgiri-Medchal (Dist.), Hyderabad – 500088

2024–25



Nalla Malla Reddy Engineering College

Divya Nagar, Kachivanisingaram Post, Ghatkesar, Medchal Dist. – 500088

Phones: 08415-256001/02/03 Fax: 08415-256000

Email: info@nmrec.edu.in Website: www.nmrec.edu.in

CERTIFICATE

This is to certify that the project report entitled “**Digital Marketing Using Artificial Intelligence**” being submitted

by

N.Bharghavi-22B61A6640

S.Sai Mohith-22B61A6658

Y.Murari Sai-22B61A6663

in partial fulfillment for the award of the degree of Bachelor of Technology in Computer Science and Engineering (Artificial Intelligence and Machine Learning), Jawaharlal Nehru Technological University Hyderabad, is a record of Bonafide work carried out under my guidance and supervision. The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

Internal Guide

Mr.B.Krishna Kumar

Assistant Professor

Dept. of AIML

Project Coordinator

Dr. Battula Balnarsaiah

Assistant Professor

Dept. of AIML

Head of the Department

Dr. Sunil Tekale

Professor

Dept. of AIML

External Examiner

DECLARATION

We declare that this project report “**Digital Marketing Using Artificial Intelligence**” submitted in partial fulfillment of the degree of B. Tech in Computer Science and Engineering is a record of original work carried out by us under the supervision of **Mr.B.Krishna Kumar**, Assistant Professor and has not formed the basis for the award of any other degree or diploma, in this or any other Institution or University. In keeping with the ethical practice in reporting scientific information, due acknowledgments have been made wherever the findings of others have been cited.

N.Bharghavi -22B61A6640

S.Sai Mohith-22B61A6658

Y.Murari Sai-22B61A6663

PLACE: HYDERABAD

DATE:

ACKNOWLEDGEMENT

Any endeavour in the field of development is a person's intensive activity. A successful project is a fruitful culmination of efforts by many people, some directly involved and some others who have quietly encouraged and supported. Salutation to the beloved and highly esteemed Institute **NALLA MALLAREDDY ENGINEERING COLLEGE**, for grooming us into Computer Science and Engineering graduates. We wish to express our heartfelt thanks to the Director **Dr. Divya Nalla** whose support was indispensable to us during the course. We also thank Principal **Dr. M. N. V. Ramesh** for providing a great learning environment. We wish to express profound gratitude to **Dr. T. Sunil**, Professor and Head of the Department, Computer Science and Engineering (Artificial Intelligence and Machine Learning), for his continuous encouragement to ensure successful results in all our endeavours. We would like to thank **Mr. B. Krishna Kumar**, Assistant Professor, Department of Computer Science and Engineering (Artificial Intelligence and Machine Learning), who has patiently guided and helped us throughout our project. We take this opportunity to thank **Department Project Co-Ordinator Dr. Battula Balnarsaiah**, Assistant Professor and Project in-charge for all the review meetings, suggestions, and support throughout the project development. Last but not least, we thank our family members who are the backbone and provided support in every possible way.

By

N.Bharghavi -22B61A6640

S.SaiMohith-22B61A6658

Y.Murari Sai-22B61A6663

ABSTRACT

The goal of the project is to create a digital marketing algorithm using Artificial Intelligence where “Turning data into decisions, and clicks into customers!”. Artificial Intelligence (AI) is transforming digital marketing by enabling businesses to create more personalized, data-driven, and efficient marketing strategies. AI-powered tools leverage machine learning, natural language processing (NLP), and predictive analytics to analyze consumer behavior, segment audiences, and optimize campaigns in real time. Key applications include AI-driven chatbots for customer support, automated content generation, intelligent ad targeting, and recommendation systems that enhance user experience. AI also enables marketers to conduct sentiment analysis, forecast trends, and automate repetitive tasks, reducing costs and improving overall efficiency. With deep insights and real-time adaptability, AI enhances engagement, increases conversion rates, and maximizes return on investment (ROI). As AI continues to evolve, it will further revolutionize digital marketing through hyper-personalization, voice search optimization, and advanced customer journey mapping, driving more effective and impactful marketing strategies.

TABLE OF CONTENTS

| CHAPTER | DESCRIPTION | PAGE NUMBER |
|----------|---------------------------|----------------|
| | CERTIFICATE | ii |
| | DECLARATION | iii |
| | ACKNOWLEDGEMENT | iv |
| | ABSTRACT | v |
| 1 | INTRODUCTION | 1 – 5 |
| | 1.1 Introduction | 1 |
| | 1.2 Motivation | 2 |
| | 1.3 Applications | 3 |
| | 1.4 Challenges And Issues | 4 |
| | 1.5 Problem Statement | 5 |
| | 1.6 Objective | 5 |
| 2 | LITERATURE SURVEY | 6 – 9 |
| 3 | METHODOLOGY | 11 – 28 |
| | 3.1 System Architecture | 11 – 13 |
| | 3.2 Implementation | 14 – 15 |
| | 3.3 Design | 16 – 18 |
| | 3.4 Prototype | 18 – 21 |
| | 3.5 UML Diagrams | 22 – 28 |
| | 3.5.1 Use Case Diagram | 22 |
| | 3.5.2 Class Diagram | 23 |
| | 3.5.3 Sequence Diagram | 24 |
| | 3.5.4 State Chart Diagram | 25 – 26 |

| | | |
|----------|--------------------------------------|----------------|
| | 3.5.5 Activity Diagram | 26 |
| | 3.5.6 Component Diagram | 27 |
| | 3.5.7 Deployment Diagram | 28 |
| 4 | RESULTS AND DISCUSSION | 29 – 34 |
| | 4.1 Results | 29 – 30 |
| | 4.1.1 Existed Result | 29 |
| | 4.1.2 Proposed Result | 30 |
| | 4.2 Discussion | 31 – 32 |
| | 4.2.1 Existing Model Performance | 31 |
| | 4.2.2 Proposed Model Improvements | 31 – 32 |
| | 4.2.3 Practical Implications | 32 |
| | 4.2.4 Conclusion | 32 |
| | 4.3 Removal Of Noise | 33 |
| | 4.4 Source Of Datasets | 33 |
| | 4.5 Conclusion | 34 |
| 5 | ADVANTAGES AND DISADVANTAGES | 35 – 42 |
| | 5.1 Advantages | 35 |
| | 5.2 Disadvantages | 35 – 36 |
| | 5.3 Software & Hardware Requirements | 37 |
| | 5.3.1 Software | 37 |
| | 5.3.2 Hardware | 37 – 42 |
| | 5.4 Introduction To Technology Used | |
| 6 | CONCLUSION AND FUTURE WORK | 43 - 46 |
| | 6.1 Conclusion | 43 |
| | 6.2 Future Scope | 43 – 44 |
| | References | 45 – 46 |
| 7 | APPENDIX | 47 – 51 |