

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA CAMPUS, BELGAVI-590018



## PROJECT REPORT

ON

## **“IDENTITY MANAGEMENT SYSTEM USING BLOCKCHAIN”**

Submitted in partial fulfilment of the award of degree in

**BACHELOR OF ENGINEERING**

IN

**INFORMATION SCIENCE & ENGINEERING**

By

**ABHISHEK R BHAT**

**4AL20IS001**

**MOHAMMED SUFIYAN**

**4AL20IS027**

**PRASAD R ACHARI**

**4AL20IS037**

**SUJAN P S**

**4AL20IS051**

**Under the Guidance of**

**Dr. PRADEEP V**

**Associate Professor**



**ALVA'S**  
Education Foundation®

**DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**

**ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**MOODBIDRI-574225, KARNATAKA**

**2023–2024**

**ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
**MIJAR, MOODBIDRI D.K. -574225, KARNATAKA**




**DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING**


**CERTIFICATE**

This is to certify that the Project entitled **"Identity Management System using Blockchain"** has been successfully completed by

<b>ABHISHEK R BHAT</b>	<b>4AL20IS001</b>
<b>MOHAMMED SUFIYAN</b>	<b>4AL20IS027</b>
<b>PRASAD R ACHARI</b>	<b>4AL20IS037</b>
<b>SUJAN P S</b>	<b>4AL20IS051</b>

the bonafide students of the **Information Science & Engineering Department, Alva's Institute of Engineering and Technology, Moodubidire**, in partial fulfillment of **8<sup>th</sup> Semester, BACHELOR OF ENGINEERING**, affiliated to **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**, during the year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work Phase-2 -18CSP83 prescribed for the Bachelor of Engineering Degree.

  
**Dr. Pradeep V**  
Associate Professor  
Guide


  
**Dr. Sudheer Shetty**  
Professor  
HOD, ISE  
Dept. Of Information Science & Engineering  
Alva's Institute of Engg. & Technology  
Mijar, MOODBIDRI - 574 225  
**EXTERNAL VIVA**

  
**Dr. Peter Fernandes**  
Principal  
Alva's Institute of Engg. & Technology  
Mijar, MOODBIDRI - 574 225, D.K

Name of the Examiners

1. **Dr. Sudheer Shetty**
2. **Dr. Ritesh Parkala**

Signature with Date

 29/5/24  
 29/5/24



## TABLE OF CONTENTS

Chapter No.	Chapter Title	Page No.
1	ABSTRACT	1
2	INTRODUCTION	1-3
3	LITERATURE SURVEY	3-4
4	SYSTEM ARCHITECTURE	4-5
5	IMPLEMENTATION	5-6
6	TESTING	6-7
7	SOFTWARE TESTING	28-37
7.1	Testing Overview	28
7.2	Testing Phases	28
7.3	Test Types	29
7.4	Test Case Samples	36
8	RESULT	38-42
8.1	Snapshots	38
9	CONCLUSION	43-44
9.1	Future Enhancements	44
10	REFERENCES	45-46

As the digital landscape expands, traditional identity management systems struggle to keep pace, leaving individuals vulnerable to data breaches, security lapses, and limited control over their personal information. Blockchain technology emerges as a transformative solution, offering a decentralized, secure, and transparent approach to identity management. This project delves into the development of a blockchain-based identity management system, empowering individuals to reclaim ownership and control over their digital identities. The proposed system leverages a decentralized ledger to store and manage identity credentials, safeguarding personal data through robust cryptographic mechanisms. Embracing a self-sovereign identity model, users gain granular control over their information, selectively sharing it with authorized entities. Verifiable credentials, issued and verified using secure cryptographic protocols, ensure the authenticity and integrity of identity claims. The blockchain-based identity management system holds immense potential for various applications, ranging from secure online authentication and authorization to streamlined e-government services. Its implementation is poised to revolutionize identity management, enhancing security, empowering users, and streamlining processes across diverse domains.