BLOCKCHAIN- ENABLED ONLINE CERTIFICATE GENERATION AND VALIDATION SYSTEMS FOR GOVERNMENT ORGANISATIONS

A PROJECT REPORT

Submitted by,
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Under the guidance of,

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in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

At



PRESIDENCY UNIVERSITY
BENGALURU
MAY 2025

PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the Internship/Project report "BLOCKCHAIN-ENABLED ONLINE CERTIFICATE GENERATION AND VALIDATION SYSTEMS FOR GOVERNMENT ORGANISATIONS" being submitted by "PRAKRUTHI S, DEEPTHI R, NIDHISHA N" bearing roll number "20211CSE0628, 20211CSE0618, 20211CSE0677" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.

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DECLARATION

I hereby declare that the work, which is being presented in the report entitled "BLOCKCHAIN- ENABLED ONLINE CERTIFICATE GENERATION AND VALIDATION SYSTEMS FOR GOVERNMENT ORGANISATIONS" In partial fulfillment for the award of Degree of Bachelor of Technology in Computer Science and Engineering, is a record of my own investigations carried under the guidance of Dr. ANAND PRAKASH, ASSOCIATE PROFESSOR, Presidency School of Computer Science and Engineering, Presidency University, Bengaluru.

I have not submitted the matter presented in this report anywhere for the award of any other Degree.

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ABSTRACT

This study explores the potential of blockchain technology for developing transparent and secure certificate issuance and verification systems. These solutions attempt to combat certificate fraud, as well as ineffective verification systems, by leveraging blockchain's decentralization and immutability features. In addition to academic credentials, blockchain-based solutions captured an increasing number of fields where improved security and faster verification is needed. Further reduction of human control and increase of efficiency comes from automating the issuance and validation of certificates through smart contracts. This study also considers the use of blockchain in medicine and IoT applications, demonstrating how blockchain can safeguard digital records and its versatility. This paper captures the possibility of blockchain technology transforming certificate management while providing trust through a comprehensive examination of existing literature and practices.

ACKNOWLEDGEMENT

First of all, we indebted to the GOD ALMIGHTY for giving me an opportunity to excel in our efforts to complete this project on time.

We express our sincere thanks to our Honorable respected dean **Dr. Md.**Sameeruddin Khan, Pro-VC - Engineering and Dean, Presidency School of Computer Science and Engineering & Presidency School of Information Science, Presidency University for getting us permission to undergo the project.

We express our heartfelt gratitude to our beloved Associate Dean Dr. Mydhili Nair, Presidency School of Computer Science and Engineering, Presidency University, and Dr. Asif Mohammad, Head of the Department, Presidency School of Computer Science and Engineering, Presidency University, for rendering timely help in completing this project successfully.

We are greatly indebted to our guide **Dr. Anand Prakash**, **Associate Professor** and Reviewer **Ms. Tintu Vijayan**, **Assistant Professor**, Presidency School of Computer Science and Engineering, Presidency University for his/her inspirational guidance, and valuable suggestions and for providing us a chance to express our technical capabilities in every respect for the completion of the internship work.

We would like to convey our gratitude and heartfelt thanks to the CSE7301 Internship/University Project Coordinator Mr. Md Ziaur Rahman and Dr. Sampath A K, department Project Coordinators Mr. Jerrin Joe Francis and Git hub coordinator Mr. Muthuraj.

We thank our family and friends for the strong support and inspiration they have provided us in bringing out this project.

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