## PROTECTION FOR PATIENT INFORMATION IN ELECTRONIC HEALTH RECORDS SYSTEM USING BLOCK CHAIN

A project report submitted in partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE & ENGINEERING

Submitted by

P.VARA POORNIMA(16811A0568)

P.CHANDRIKA(16811A0569)

V.JAHNAVI(16811A0585)

T.BHAVANI(16811A0582)

Y.MANI KUMAR(16811A0590)
Under the esteemed guidanceof

MS. D.PRASANNA KUMARI (M.Tech)
Assistant Professor



Department of Computer Science & Engineering

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Affiliated to JNTU Kakinada & Approved by AICTE)

TAMARAM, MAKAVARAPALEM, NARSIPATNAM-531113

VISAKHAPATNAM (DIST)

(2016-2020)

## AVANTHUINSTITUTE OF ENGINEERING AND TECHNOLOGY

(Affiliated to JNTU Kakinada & Approved by AICTE)
TAMARAM, MAKAVARAPALEM, NARSIPATNAM531113VINAKHAPATNAM (DIST)



This is to certify that the Project Report entitled "PROTECTION FOR PATIENT INFORMATION IN ELECTRONIC HEALTH RECORDS SYSTEM USING BLOCK CHAIN " P.VARA POORNIMA(16811A0568)P.CHANDRIKA(16811A0569),V.JAHNAVI(16811A0585),T.BHAVANI(16811A0582), Y.MANI KUMAR(16811A0590) in partial fulfilment of the requirements for the degree of U.Tech (C.S.E) in Department of Computer Science & Engineering, at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY affiliated by Jawaharlal Nehru Technological University Kakinada, is a record of bonafide work carried out by them under my guidance and supervision.

The results embodied in this thesis have not been submitted to any university or institute for the award

or any degree of diploma.

Ms.D.PRASANNA KUMARI Project Guide P.M.Manohar Head of the Department

External Examiner

## **ABSTRACT**

Modern healthcare systems are characterized as being highly complex and costly. However, this can be reduced through improved health record management, utilization of insurance agencies, and block chain technology. Block chain was first introduced to provide distributed records of money-related exchanges that were not dependent on centralized authorities or financial institutions. Breakthroughs in block chain technology have led to improved transactions involving medical records, insurance billing, and smart con-tracts, enabling permanent access to and security of data, as well as providing a distributed database of transactions. One significant advantage of using block chain technology in the healthcare industry is that it can reform the interoperability of healthcare databases, providing increased access to patient medical records, device tracking, prescription databases, and hospital assets, including the complete life cycle of a device within the block chain infrastructure. Access to patients' medical histories is essential to cor- rectly prescribe medication, with block chain being able to dramatically enhance the healthcare services framework. In this paper, several solutions for improving current limitations in healthcare systems using block chain technology are explored, including ledger Fabric, Composer, Docker Container, Hyper ledger Caliper, and the Wire shark capture engine.