

# **SECURE CHAT API: ENCRYPTED CHAT APPLICATION PROGRAM INTERFACE WITH BLOCK-CHAIN AUTHENTICATION**

## **PROJECT REPORT**

*Submitted by*

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*In partial fulfillment for the award of the degree  
of*

**BACHELOR OF ENGINEERING**

**in**

**COMPUTER SCIENCE AND ENGINEERING**

**M.I.E.T. ENGINEERING COLLEGE, TRICHY – 620007**

**ANNA UNIVERSITY :: CHENNAI – 600 025**



**MAY 2024**

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## **BONAFIDE CERTIFICATE**

Certified that this project report “**SECURE CHAT API: ENCRYPTED CHAT APPLICATION PROGRAM INTERFACE WITH BLOCK-CHAIN AUTHENTICATION**” is the Bonafide of “**G. GOKUL**” (812420104027), “**M. PREMSIDEV**” (812420104071), “**A. RAHMATHULLAH**” (812420104073) and “**T. SHAIK MOHAMED FAHAD**” (812420104083) who carried out the project under the supervision.

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Submitted for the viva-voce held on \_\_\_\_\_

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

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## **ABSTRACT**

To construct a Chat API of unparalleled security and reliability, engineered to facilitate encrypted communication within a Chat Application. The endeavor encompasses a multifaceted approach, integrating robust encryption protocols and Block-chain Authentication mechanisms to fortify user identity verification and authentication. Initially, extensive research explores encryption techniques and Block-chain Authentication, scrutinizing their suitability and efficacy for the project's objectives. Subsequently, meticulous design and development ensue, crafting the architecture of the Chat API to seamlessly incorporate advanced encryption protocols, notably Fernet, and Block-chain Authentication via smart contracts. The implementation phase is characterized by a commitment to coding excellence, ensuring optimal performance, and maintainability of the Chat API. By prioritizing security without compromising usability, the Chat API aspires to empower users with a trustworthy platform for confidential communication, safeguarding their digital interactions in the face of evolving cybersecurity challenges.