Journal of Discrete Mathematical Sciences & Cryptography

Volume 28, Number 8, December 2025

Special Issue on

Cryptography and Secure Intelligent Systems : Biometrics, Blockchain, Homomorphic Encryption, and FinTech Security

Guest Editors

Chirag Joshi

Gaurav Kumawat

Neeraj Kumar Verma

Sarvesh Kumar

Published by :

Taru Publications

Guest Editors

Chirag Joshi
Department of Data Science and Engineering
Manipal University Jaipur
Jaipur
Rajasthan
India
E-mail: chirag.joshi@jaipur.manipal.edu

Gaurav Kumawat
Department of Data Science and Engineering
Manipal University Jaipur
Jaipur
Rajasthan
India
E-mail: gaurav.kumawat@jaipur.manipal.edu

Neeraj Kumar Verma
Department of Data Science and Engineering
Manipal University Jaipur
Jaipur
Rajasthan
India
E-mail: neeraj.verma@jaipur.manipal.edu

Sarvesh Kumar
Amity Institute of Information Technology
Amity University, Patna
Patna
Bihar
India
E-mail: skumar8@ptn.amity.edu

Journal of Discrete Mathematical Sciences & Cryptography
ISSN 0972-0529 (Print), ISSN 2169-0065 (Online)
Vol. 28 (2025), No. 8, pp. iii-iv
DOI : 10.47974/JDMSC-28-8-Foreword

FOREWORD

This special issue titled *"Cryptography and Secure Intelligent Systems: Biometrics, Blockchain, Homomorphic Encryption, and FinTech Security"* presents cutting-edge research connecting discrete mathematics, cryptography, secure AI, and modern digital systems. The selected papers of this special issue arises from contributions submitted to the International Conference on Innovations in Data Science (ICIDS 2024) held at Manipal University Jaipur, Jaipur on 28–29 November 2024. Out of over 320 submitted manuscripts, only 19 papers from researchers covering a wide range of innovative concepts have been selected for publication in this issue.

Each contribution demonstrates how mathematical modeling, non-invertible transformations, private-key mechanisms, and encrypted computation strengthen the trustworthiness of today's interconnected digital infrastructures.

Together, the works address challenges such as identity protection, secure digital transactions, encrypted model aggregation, and safeguarding financial platforms from sophisticated cyber threats. They illustrate how cryptographic primitives—ranging from lattice-based schemes and polynomial encodings to zero-knowledge proofs and homomorphic encryption—provide robust solutions to risks such as replay attacks, data exposure, unauthorized access, and fraud. These studies collectively show that advancing digital security requires both theoretical depth and system-level innovation.

We extend sincere gratitude to all authors, reviewers, and the editorial team, and especially to Professor B. K. Dass, Chief Editor, for his invaluable guidance during the publication process in the *Journal of Discrete Mathematical Sciences and Cryptography*, published by Taru Publications, New Delhi.

We hope this issue serves as a meaningful resource for researchers and practitioners working toward secure, privacy-preserving intelligent systems.

Guest Editors :
Chirag Joshi
Gaurav Kumawat
Neeraj Kumar Verma
Sarvesh Kumar

Journal of Discrete Mathematical Sciences & Cryptography

Volume 28, Number 8, December 2025

Special Issue on

Cryptography and Secure Intelligent Systems : Biometrics, Blockchain, Homomorphic Encryption, and FinTech Security

CONTENTS