Educational Qualification:

Ph.D (Computer Science), Jawaharlal Nehru University (JNU), New Delhi.
M.Tech (Computer Science & Engineering), Kurukshetra University, Kurukshetra.
M.Sc (Mathematics), Institute of Basic Sciences (IBS), Khandari, Dr. B. R. Ambedkar University, Agra.

Specialization:

Video-on-Demand, Cryptography

Research Interest:

Network Security, Cryptology, Image Processing, Wireless Sensor Networks, Data Mining, Information Retrieval, and Quantum Computing

Ph.D Supervision: 18 (Awarded) + 1 (Submitted) + 2 (On going)

S.No.	Scholar name	Thesis Titile	Year	Status	Ext./Co-guide
1.	Mantosh Biswas	Study and Development of Image Denoising Techniques	January, 2014	Completed	sole
2.	Neha Sharma	Usage of Data Mining Techniques for early Detection and Prevention of Oral Cancer	March, 2015	Completed	sole
3.	Chiranjeevi Manike	Study and Development of High Utility Pattern Mining Techniques for Evolving Data Streams	March, 2015	Completed	sole
4.	Ravi Sangam	Study and Development of Clustering Algorithms for Large Datasets	February, 2016	Completed	sole
5.	Shipra Kumari	Study and Development of Remote User Login Authentication Schemes	December, 2016	Completed	sole
6.	Rishav Singh	Study and Development of Newborn Face Recognition Techniques in a Semi-constrained Environment	March, 2017	Completed	sole
7.	Nabajyoti Mazumdar	Analysis and Development of Efficient Routing Algorithms	February, 2018	Completed	sole

		for Wireless Sensor Networks			
8.	Pratik Ranjan	Design and Analysis of Password Authentication Techniques	February, 2018	Completed	sole
9.	Manish Kumar	Soft Computing Techniques for Structural and Behavioral Studies of Biomolecules	Februay, 2018	Completed	sole
10.	Preeti Chandrakar	Design and Analysis of Remote Login Authentication Schemes	April, 2018	Completed	sole
11.	Sunil Kumar Gautam	Study and Development of Intrusion Detection Systems	January, 2019	Completed	sole
12.	Choudhary Shyam Prakash	Techniques on Transform Domain Digital Image Forensics	August, 2019	Completed	Dr. S. Maheshkar
13.	Amit Kumar	Designing of Secure & Seamless Handover Authentication Techniques for Wireless Networks	September, 2019	Completed	sole
14.	Pradeepika Verma	Document Summarization Techniques using Meta-heuristic Approaches	February, 2020	Completed	sole
15.	Nilam Vaibhav Upasani	Outlier Detection: AFuzzy Neural Network Approach	June, 2020	Completed	sole
16.	Gaurav Agarwal	Vocal Emotion Recognition based on Deep Learning and Swarm Intelligence Optimization Techniques	September, 2022	Completed	sole
17.	Kartick Sutradhar	Secure Multiparty Quantum Computation for Summation and Multiplication Protocols employing Secret Sharing	October, 2022	Completed	sole
18.	Ashish Kumar	Design and Analysis of Authentication Schemes in Multi-Server Environment	November, 2022	Completed	sole
19.	Pankaj Kumar	Design and Analysis of Secure and Efficient Authentication Protocols for Vehicular Communication	April 2023	Submitted	sole

M.Tech Supervision: 55 (Awarded)

Patents:

Published: 2
A BIOMETRIC BASED METHOD AND SYSTEM FOR IDENTIFYING AN INFANT
[Application No.: 201911008955, filing and published on 7th March 2019 and 11^{th}September 2020, respectively]

SMART DINING TABLE: SPEECH EMOTION BASED FEEDBACK SYSTEM
[Application No.: 202111005627, *filed on* 10th February 2021 *and publication date:* 12th February 2021]

Granted: 1
ROBOT FOR SANITIZATION
*[*DESIGN NUMBER: 360257-001), The Patent Office Journal No. 19/2022 Dated 13/05/2022, pp. 30912*]*

LIFE Membership of Professional bodies:

- Indian Society for Technical Education (ISTE)
- Indian Mathematical Society (IMS)
- Indian Society of Mathematics and Mathematical Sciences (ISMAMS)
- Cryptology Research Society of India (CRSI)

Co-coordinator of Short-term Courses/Workshops:

- **Mathematics of Cryptography with Image and Bluetooth Security Applications**: Dec. 19-23, 2016.
- **Information and Network Security**: March 14-15, 2014.
- **Information and Network Security: Goals, Attacks and Defenses**: Aug. 22- 26, 2012.
- **Information and Network Security: Goals, Attacks and Defenses**: Sep. 18-22, 2012.

Lectures delivered on:

- **Foundation of Cryptography** in the Int. conf. on *Mathematical Sciences and Applications*" during 24-26 March 2023 organized by Dept. of Mathematics, Dr. B. R. Ambedkar University Agra.
- **Machine Learning techniques and their Applications** in AICTE Training And Learning Academy (ATAL) FDP on "*Deep Learning and Computer Vision*" from 03-07 Jan. 2022 organized by School of Computing and IT, Manipal University Jaipur.
- **Blockchain Technology and Its Applications** in National Workshop on "*Computational Intelligence & Blockchain Technologies*" during 4-8 Oct. 2021 organized by Dept. of CSE, NIT Raipur.

- **Blockchain Technology and Its Applications**" in National Workshop on "*Computational Intelligence & Blockchain Technologies*" during 4-8 Oct. 2021 organized by Dept. of CSE, NIT Raipur.
- **Quantum Computing and Cryptographic Analysis** in the conference on "*Mathematical Sciences and Development*" during 22-24 Dec. 2018 organized by Dept. of Mathematics, Dr. B.R.Ambedkar University Agra.

<u>Workshops/Quality Improvement Programme (Short-term Course) attended:</u>

- Information Security Education & Awareness (ISEA) Appraisal Workshop from March 7-11, 2011 at Indian Institute of Technology (IIT), Guwahati.
- Quality Improvement Programme on "Entrepreneurship Development for Faculties" from 26th March to 11th April, 2009 sponsored by AICTE at Indian Institute of Technology (IIT), Kharagpur.
- Second Information Security Education & Awareness (ISEA) Appraisal Workshop from March 19-20, 2008 at Indian Institute of Technology (IIT), Guwahati.
- Four weeks course on "System Administration and Information Security" organized under Information Security Education & Awareness (ISEA) programme of Ministry of Communication and Information Technology from 14th May to 8th June, 2007 at Indian Institute of Science (IISc), Banglore.
- Second Training Programme for the faculty members under the "Information Security Education & Awareness (ISEA) Project" from 15th May to 9th June, 2006 at Institute of Mathematical Science (IMSc), Chennai.

Courses taught at

Under Graduate (UG) level:

- Information Transmission & Security
- Applied Graph Theory
- Discrete Mathematics
- Data Structures
- Theory of Computation
- Programming Language Concepts
- Information Technology(Computer Programming & Information Technology)
- Information & Coding Theory
- Database Management Systems
- Operating Systems
- Computer Networks
- System Simulation
- Computer Organization

Post Graduate (PG) level:

- Linear Data Structure(Data structures and Algorithm)
- Greedy Paradigm(Algorithm Design & Analysis)
- Operating System(System Software)

- Programming Languages
- Cryptography & Network Security
- Computer Networks
- Database Management Systems
- Information & Coding Theory
- Operating Systems
- Computational Number Theory
- Mobile & wireless Network Security
- Number Theory and Cryptography