

DEEPAK GARG

Rohini, Delhi, INDIA

deepak.garg@nfsu.ac.in

[LinkedIn](#) and [Google Scholar](#)

+91-9417181992

EDUCATION

Ph.D. in Computer Science and Engineering

April 2020

Chitkara University, Punjab, INDIA

Dissertation: *Design and Evaluation of Data Security Technique to Preserve Confidentiality in Cloud Computing*

M.Tech. in Computer Science and Engineering

October 2015

Punjab University Patiala, Punjab, INDIA

Thesis: *Character Recognition of Sindhi (Arabic) Script*

B.E. in Computer Science and Engineering

August 2013

Sant Longowal Institute of Engineering and Technology (SLIET), Punjab, INDIA

RESEARCH INTERESTS

- Cloud computing security with a focus on encryption-based frameworks to ensure data confidentiality and integrity.
- Hybrid encryption techniques, such as Advanced Encryption Standard (AES), Identity-based Encryption (IBE), and Attribute-Based Encryption (ABE), for secure data storage in industrial and cyber-physical systems.
- Machine learning for data classification, access control, and cryptographic protocol design.
- Threat modelling and performance evaluation of secure cloud systems.
- Cyber forensics, including digital evidence acquisition, malware analysis, and incident response.

ACADEMIC POSITIONS

Baba Farid Group of Institutions, Bathinda, INDIA

Jan 2026 – Till Date

Associate Professor

Department of Computer Science and Engineering

National Forensic Sciences University (NFSU), Delhi, INDIA

July 2022 – Dec 2025

Assistant Professor

Department of Cyber Security and Digital Forensics

Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Punjab, INDIA

Jan. 2021 – Aug. 2021

Assistant Professor (Guest Faculty)

Department of Information Technology

Giani Zail Singh Campus College of Engineering and Technology

Maharaja Ranjit Singh Technical University, Bathinda, Punjab, INDIA

Oct. 2020 – Dec. 2020

Assistant Professor (Lecturer)

Department of Computer Science and Engineering

RESEARCH EXPERIENCE

Post-Doctoral Researcher

Sept. 2021 – July 2022

Cyber Security Research Centre, Punjab Engineering College (PEC), Chandigarh, INDIA

Project: Framework for Generating Actionable Intelligence from Cyberspace using Computational Techniques and Analysis under the Interdisciplinary Cyber Physical Systems (ICPS) Program funded by the Government of India.

- Addressed national security threats by analyzing cyberspace data for intelligence generation.
- Developed scalable data crawlers to collect large, multilingual datasets from social media and online platforms.
- Applied machine learning and deep learning techniques to detect fake news, anti-national content, and indicators of radicalization.
- Proposed a cognitive model for perception management and conducted multilingual content analysis.
- Validated tools and models on real-world data to ensure effectiveness and operational relevance.
- The developed framework is currently being utilized by government agencies to trace the spread and origin of fake news on platforms like Twitter.

Graduate Researcher

Aug. 2016 – April 2020

Department of Computer Science, Chitkara University, Punjab, INDIA

- Developed and evaluated a novel data security technique to enhance confidentiality in cloud computing environments.
- Proposed the Dynamic Hybrid Secure Encryption (DHSE) approach, integrating Advanced Encryption Standard (AES), Identity-Based Encryption (IBE), and Attribute-Based Encryption (ABE).
- Implemented a sensitivity-based data classification mechanism to apply suitable encryption schemes dynamically.
- System developed and tested in PyCharm, with security protocol validation performed using AVISPA.
- Experimental results showed improved encryption/decryption times and greater efficiency over existing methods.

Graduate Researcher

June 2015 – Oct. 2015

Department of Computer Science, Punjabi University Patiala, Punjab, INDIA

- Developed a machine learning-based system for recognizing Sindhi characters, which uses a modified Arabic script known for its cursive, context-sensitive, and visually complex nature.
- Implemented feature extraction techniques such as zoning and vertical projection to capture relevant character patterns.
- Applied machine learning algorithms, including neural networks and Support Vector Machines (SVM), for effective character classification and recognition.
- Designed segmentation algorithms to improve the accuracy of breaking Sindhi text images into lines and characters, addressing challenges posed by similar character shapes, font, and size variations.
- Created a dataset of read Sindhi text images and proposed techniques for noise removal in both printed and handwritten scripts.
- Developed and tested the system using MATLAB.

PEER-REVIEWED JOURNAL PUBLICATIONS

1. Kumar N., Saini S., & **Garg D.** (2024). Color Image Encryption Model Based on 3-D Chaotic Logistic Map and JAYA Algorithm. *IETE Journal of Research*, 70(12), 8414-8424.
2. **Garg D.**, Rani S., Herencsar N., Verma S., Wozniak M., & Ijaz, M. F. (2022). Hybrid technique for cyber-physical security in cloud-based smart industries. *Sensors*, 22(12), 4630.
3. **Garg D.**, & Rani S. (2020). Dynamic Hybrid Secured Environment (DHSE) to Provide Confidentiality in Cloud Computing Environment. *Journal of Computational and Theoretical Nanoscience*, 17(6), 2557-2561.
4. **Garg D.**, Sidhu J., & Rani S. (2020). A note on cloud computing security. *International Journal of Ad Hoc and Ubiquitous Computing*, 33(3), 133-154.
5. **Garg D.**, Sidhu J., & Rani S. (2019). Improved TOPSIS: A multi-criteria decision making for research productivity in cloud security. *Computer Standards & Interfaces*, 65, 61-78.
6. **Garg D.**, Sidhu J., & Rani S. (2019). Emerging trends in cloud computing security: A bibliometric analyses. *IET Software*, 13(3), 223-231.

INVITED TALKS AND ORGANISED COURSES

1. **Mobile Security Threats and Prevention** – Guest Lecture at Bharat Electronics Limited, Ghaziabad Complex, Uttar Pradesh, India, October 28, 2023.
2. **Decoding Cryptocurrency** – Special Course on *Collection and Preservation of Digital and Forensic Evidence vis-à-vis New Criminal Laws*, 13–15 May 2024.
3. **Decoding Cryptocurrency** – 3rd Special Course on *Collection and Preservation of Digital and Forensic Evidence vis-à-vis New Criminal Laws*, 11–13 June 2024.
4. **Blockchain and Cryptocurrency** – Special Course on *Cyber Security, Forensics, and Social Media Analysis* for the Indian Navy, 23–27 September 2024.
5. **Network Technology** – 2nd Course on *Cyber Crime Investigation: SOPs for Collection, Preservation, and Transport of Digital Evidence to Forensic Laboratory*, 20–24 November 2023.
6. **Network Types, Topologies, Devices, and Protocols** – Training for *Cyber Commando Program*, October 18, 2024.
7. **Organized:** 7th Special Course on *Criminal Justice and Digital Forensics* for Public Prosecutors, 16–20 December 2024.
8. **Organized:** 10th Course on *Criminal Justice and Digital Forensics*, 3–7 March 2025.
9. **Organized:** 12th Course on *Mobile Forensics*, 7–9 April 2025.

CONFERENCE PAPER AND PRESENTATIONS

1. **Garg D.**, Sidhu J. (2018). Survey on Implementation of Security in Cloud. *Intelligent Communication, Control and Devices (ICICCD)*, 624, 1587-1594, Springer.
2. Chaturvedi K., Salhotra T., & **Garg D.** (2024). Cloud Forensics: Current Perspectives, Challenges and Potential Solutions. *3rd International Conference on Information Security, Privacy and Digital Forensics (ICISPD 2024)*.
3. Raj S., Singh AP., & **Garg D.** (2024). The Efficacy of Metadata Analysis in Detecting Deepfakes: A Forensic Perspective. *3rd International Conference on Information Security, Privacy and Digital Forensics (ICISPD 2024)*.

TEACHING

- National Forensic Sciences University (NFSU), Delhi, INDIA** **July 2022 – Dec 2025**
- Computer Networks (Spring 2023, 2024, 2025)
 - Advanced Computer Networks (Fall 2022, 2023, 2024, 2025)
 - Essentials of Cyber Security (Spring 2023, 2024, 2025)
 - Blockchain and Cryptocurrencies (Fall 2022, 2023, 2024, 2025)
 - Cyber Security Audit and Compliance (Fall 2022, 2023, 2024, 2025)
- Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Punjab, INDIA** **Jan. 2021 – Aug. 2021**
- Fundamentals of Database Management Systems (Spring 2021)
 - Mobile Application Development (Spring 2021)
- Giani Zail Singh Campus College of Engineering and Technology
Maharaja Ranjit Singh Technical University, Bathinda, Punjab, INDIA** **Oct. 2020 – Dec. 2020**
- Object Oriented Programming (Fall 2020)
- Chitkara University, Punjab, INDIA** **Aug. 2016 – Dec. 2019**
- Computer Networks (Fall 2016, 2017, 2018, 2019, Spring 2017, 2018, 2019)
 - Advanced Computer Networks (Fall 2016, 2017, 2018, 2019, Spring 2017, 2018, 2019)

MENTORSHIP

- Mentored **1 undergraduate** and **5 graduate** students at National Forensic Sciences University (NFSU), Delhi (**2022–2025**).
- Mentored **5 graduate** students at the Cyber Security Research Centre, Punjab Engineering College (PEC), Chandigarh (**2021–2022**).
- Mentored **3 undergraduate** and **1 graduate** student at Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Punjab (**2021**).
- Mentored **2 undergraduate** and **2 graduate** students at Giani Zail Singh Campus, College of Engineering and Technology, Maharaja Ranjit Singh Punjab Technical University, Bathinda (**2020**).
- Mentored **10 undergraduate** and **5 graduate** students at Chitkara University, Punjab (**2016–2020**).

HONORS AND AWARDS

- 1. Outstanding Teaching Recognition** - Received excellent teaching feedback from the Campus Director, highlighting strengths in attendance, punctuality, and student engagement through effective communication.
- 2. UGC NET Qualified** (July 2018) – National eligibility for Assistant Professor and Junior Research Fellowship (JRF) in Indian universities.
- 3. Full Ph.D. Scholarship** – Awarded by Chitkara University, Punjab, for academic excellence.
- 4. Best Research Paper Award** (2019) – "*Emerging Trends in Cloud Computing Security: A Bibliometric Analysis*," published in *IET Software*.

PROFESSIONAL MEMBERSHIP

- IETE Society Member of The Institution of Electronics and Telecommunication Engineers (IETE) with **Member No. M-503598**.

REVIEWER

- IEEE Transactions on Computational Social Systems (SCI)
- IETE Journal of Education (Scopus)
- IETE Journal of Research (Scopus)
- 2nd IEEE International Conference on Computer, Electronics and Electrical Engineering and their Applications (IC2E3-2024)