

Curriculum Vitae

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Education

2018–2023 Ph.D. (Awarded - May, 2023), Computer Science & Engineering, *Indian Institute of Technology (ISM) - (Govt. of India)*, Dhanbad, India, .

Thesis title - "Developing Security Paradigms for Efficient Data Storage in Cloud Environment", under the supervision of Dr. Dharavath Ramesh (Associate Professor, IIT(ISM)), Dhanbad, India

2014–2016: Master of Technology, Computer Science & Engineering with specialization in information security, *Indian Institute of Technology (ISM) - (Govt. of India)*, Dhanbad, India, with

2009–2013: Bachelor of Technology, Computer Science & Engineering, *Guru Jambheshwar University* of Science and Technology (Govt. of Haryana), Hisar, India, passed with 71.20%.

2008: Senior Secondary Examination, CBSE, Delhi, India, Passed with distinction (82.00%).

2006: Higher Secondary Examination, HBSE, Haryana, India, Passed with distinction (88.00%).

Teaching Experience (2+ years)

Github

in Linkedin

Febuary, 2024 **Assistant Professor**.

 Till date Dept. of Electronics & Computer Engineering, National Institute of Advanced Manufacturing Technology (NIAMT - Deemed university under Distinct Category under MoE), Ranchi, Jharkhand, India

March, 2023 - Assistant Professor.

January, 2024 Dept. of Computer Science and Engg., Graphic Era (Deemed to be University) (**Times Higher ranking - 601 - 800, NIRF (India) - 55**), Dehradun, Uttrakhand, India

August, 2017 Assistant Professor (On Contract).

 May, 2018 Dept. of Computer Science and Engg., National Institute of Technology (An Institute of National Importance), Delhi, India

July, 2016 – **Adhoc faculty**.

May, 2017 Dept. of Computer Science and Engg., Malaviya National Institute of Technology (MNIT) (An Institute of National Importance), Jaipur, India

Project Submitted

Title: Secure Spatial Data Acquisition and Aggregation with Blockchain Platform using Feder-

ated Learning.

Role: Principal Investigator

Funding DST SERB Govt. of India, Project amount - 22,78,500.00

agency:

Fnding DST

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Project Research Experience

April, 2021 – Secure and dynamic privacy-preserving public auditing schemes for IOT enabled data in March, 2022 clouds.

Analyzing different modalities of IoT enabled cloud storage environment, along with efficient "Fibonacci tree structure" to achieve secure and dynamic public auditing in cloud storage. (Research Grant by PMU Cybersecurity Center Research Grant (PCC-Grant-202113), Prince Mohammad Bin Fahd University, Kingdom of Saudi Arabia)

Principal **Dr. Dharavath Ramesh**, Associate Professor, Department of Computer Science & Engineering, Investigator: IIT Dhanbad (Personal Web-page)

Publications

Accepted Journal Articles

- 2023 **Rahul Mishra**, Dharavath Ramesh, Salil S Kanhere, and Damodar Reddy Edla. Enabling efficient deduplication and secure decentralized public auditing for cloud storage: A redactable blockchain approach. *ACM Transactions on Management and Information Systems*, pages 1–37. ACM, 2023, (Impact Factor:2.5).
- 2023 **Rahul Mishra**, Dharavath Ramesh, Damodar Reddy Edla, and Lianyong Qi. Vaccinechain: A checkpoint assisted scalable blockchain based secure vaccine supply chain with selective revocation. *Journal of Industrial Information Integration*. Elsevier, 2023, (Impact Factor:15.7).
- 2023 **Rahul Mishra**, Dharavath Ramesh, Paolo Bellavista, and Damodar Reddy Edla. Redactable blockchain-assisted secure data aggregation scheme for fog-enabled internet-of-farming-things. *IEEE Transactions on Network and Service Management*. IEEE, 2023, **(Impact Factor:5.3)**.
- 2022 **Rahul Mishra**, Dharavath Ramesh, Damodar Reddy Edla, and Lianyong Qi. Ds-chain: A secure and auditable multi-cloud assisted ehr storage model on efficient deletable blockchain. *Journal of Industrial Information Integration*, page 100315. Elsevier, 2022, **(Impact Factor:15.7)**.
- 2022 **Rahul Mishra**, Dharavath Ramesh, and Damodar Reddy Edla. Fibonacci tree structure based privacy preserving public auditing for iot enabled data in cloud environment. *Computers and Electrical Engineering*, volume 100, page 107890. Elsevier, 2022, (Impact Factor:4.3).
- 2022 **Rahul Mishra**, Dharavath Ramesh, and Damodar Reddy Edla. Blockchain assisted privacy-preserving public auditable model for cloud environment with efficient user revocation. *Cluster Computing*, pages 1–25. Springer, 2022, (Impact Factor:4.4).
- 2021 **Rahul, Mishra**, Dharavath Ramesh, and Damodar Reddy Edla. Dynamic large branching hash tree based secure and efficient dynamic auditing protocol for cloud environment. *Cluster Computing*, volume 24, pages 1361–1379. Springer, 2021, (Impact Factor:4.4).
- 2021 **Rahul Mishra**, Dharavath Ramesh, and Damodar Reddy Edla. Bb-tree based secure and dynamic public auditing convergence for cloud storage. *The Journal of Supercomputing*, volume 77, pages 4917–4956. Springer, 2021, **(Impact Factor:3.4)**.
- 2021 Dharavath Ramesh and **Rahul Mishra**. Pcs-abe (t, n): a secure threshold multi authority cp-abe scheme based efficient access control systems for cloud environment. *Journal of Ambient Intelligence and Humanized Computing*, volume 12, pages 9303–9322. Springer, 2021, (Impact Factor:3.704).

Submitted and In Progress Articles

2023 Rahul Mishra, Dharavath Ramesh, Damodar Reddy Edla, and Lianyong Qi, Blockchain Enabled Secure Pharmaceutical Supply Chain Framework with Traceability: An Efficient Searchable Approach, In *Journal of Cleaner Production*, Elsevier. [Quartile Q1, IF: 11.7], (Under Review).

2024 Rahul Mishra, Dharavath Ramesh, Paolo Bellavista, Secure and Intelligent Framework for Agriculture 5.0: An Amalgamation of Fog-Drone and Scalable Blockchain Architecture, (Research Work is continuing).

In Conference Proceedings

- 2022 Rahul Mishra, Dharavath Ramesh, and Nazeeruddin Mohammad. Rbda: Redactable-blockchain based secure data aggregation scheme for iot enabled cloud paradigm. In 2022 IEEE International Conference on Pervasive Computing and Communications Workshops and other Affiliated Events (PerCom Workshops), pages 409–414. IEEE (Core Rank - A*), Italy, 2022.
- 2020 Rahul Mishra, Dharavath Ramesh, and Damodar R Edla. Deletable blockchain based secure ehr storage scheme in multi-cloud environment. In 2020 IEEE 22nd International Conference on High Performance Computing and Communications (IEEE HPCC), pages 1057-1064. IEEE (Core Rank - B), Fiji, 2020.
- 2020 Rahul Mishra, Dharavath Ramesh, Edla, and Damodar Reddy. Binary binomial tree based secure and efficient electronic healthcare record storage in cloud environment. In 20th International Conference on Innovations for Community Services, pages 173–186. Springer (Core Rank - B), Germany, 2020.

Academic Achievements & Recognitions

- 2014, 2016 Graduate Aptitude Test in Engineering (GATE) Qualified in the Subject Computer Science & Engineering.
 - 2017 UGC National Eligibility Test (NET) Qualified in the Subject Computer Science & Applications.
 - 2022 Granted Student Participation Grant from IEEE Technical Community on Parallel Processing (TCPP) to represent the accepted work at IEEE PerCom - 2022, Italy.

Edited Book & Special Sessions

- 2022 Conduct special sessions in "AI DRIVEN BLOCKCHAIN: AN EMERGING TREND FOR COMPUTATIONAL INTELLIGENCE", in conjunction with International Conference on Emerging Techniques in Computational Intelligence (ICETCI), IEEE - 2022, during 25-27 August 2022 at Mahindra University, Hyderabad, India.
- 2024 Editor of Book "Sustainable Agriculture 5.0: An application of IoT, Machine Learning, and Blockchain", Publisher CRC Press, Taylor & Francis.

Computer skills

Programming Solidity, C, C++

Languages

Web HTML 5, JSP, Javascript, React JS

Technologies

Database SQL, MySQL

TPC member & Reviewer

- 2022 TPC member in 6^{th} International Conference on Computer Applications and Information Security (ICCAIS'2023), Tunisia
- 2022 Reviewed articles from Computer Standard & Interfaces, Journal of Parallel and Distributed Computing, Cluster Computing, IEEE TFS, Journal of Supercomputing, Plos One, Scientific Reports (Nature), IEEE TNSM and many more.

Referees

Dr. Dharavath Ramesh (Ph.D Supervisor) Dr.

Associate Professor, Department of Computer Science & Engineering Indian Institute of Technology (ISM), India

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Prof. Paolo Bellavista

Dr. Damodar Reddy Edla (Ph.D Co-Supervisor)

Associate Professor and DSW, Department of Computer Science
National Institute of Technology, Goa, India

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