

**Reshu Verma**  
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#### ACADEMIC DETAILS

Degree	Institute	Year	CGPA/%
PhD - Computer Science Engineering	IIT Hyderabad	2020-(ongoing)	7.75
M.Tech - Computing Systems	NIT Uttarakhand	2017-2019	9.14/10
B.Tech - Computer Science Engineering	BBDNITM Lucknow	2012-2016	77.3
12 CBSE	RLB Senior Secondary School	2012	86
10 CBSE	RLB Senior Secondary School	2010	83.6

#### FIELDS OF INTEREST

- Blockchain Technology, Intelligent Transportation System, Smart Mobility, Internet of Things, Cryptographic key establishment

#### PUBLICATIONS

- R. Verma, V. V. S and K. Kataoka, "Verifiable and Robust Monitoring and Alerting System for Road Safety by AI based Consensus Development on Blockchain," 2023 IEEE Intelligent Vehicles Symposium (IV), Anchorage, AK, USA, 2023, pp. 1-8, doi: 10.1109/IV55152.2023.10186676.
- Abhimanyu Kumar, Reshu Verma "Attribute-Based Authenticated Group Key Transfer Protocol without Pairing" Wireless Personal Communications ( IF 1.061 ) Pub Date : 2020-04-25 , DOI: 10.1007/s11277-020-07292-4
- Reshu Verma and Abhimanyu Kumar "A Pairing Free Attribute-Based Authenticated Key Agreement Protocol Using ECC" February 2020 DOI: 10.1007/978 – 3 – 030 – 39875 – 0\_11 In book: 4th International Conference on Internet of Things and Connected Technologies (ICIoTCT), 2019
- Reshu Verma and Abhimanyu Kumar "Design of Attribute Based Authenticated Group Key Agreement Protocol Without Pairing" February 2020 DOI: 10.1007/978 – 3 – 030 – 39875 – 0\_10 In book: 4th International Conference on Internet of Things and Connected Technologies (ICIoTCT), 2019
- B. Chandan, P. K. Pal, K. C. Jana and R. Verma, "Optimal Design of a Step-Up 17-Level Switched-Capacitor Inverter with Minimal Device Count," 2022 IEEE International Power and Renewable Energy Conference (IPRECON), Kollam, India, 2022, pp. 1-6, doi: 10.1109/IPRECON55716.2022.10059493.

#### TECHNICAL SKILLS

- Languages** (C, Nodejs, Python), **Tools** (Hyperledger Sawtooth, Hyperledger Fabric, NS3, SUMO,  $\text{\LaTeX}$ ).

#### MAJOR PROJECTS AND SEMINAR

- PhD Work**  
*(Guide: Dr. Kotaro Kataoka 2020-present)*
  - Title: Verifiable Uncertain Context using Edge AI and IoT on Blockchain for Smart Mobility
  - Objective: To use blockchain and AI in a high mobility scenario to detect, alert, and validate the context in IoV. Additionally, keep the proof that the user used to confirm the context in the cloud.
- M.Tech Dissertation**  
*(Guide: Dr. Abhimanyu Kumar 2018-2019)*
  - Title: : Design of Efficient Attribute based Authenticated Key Establishment Protocols
  - Objective :To develop protocols for creating cryptographic keys to share the data between two people or within a group of people, where the cryptographic key is used for encryption, decryption, authentication, etc. .

- **B.Tech Project** (M. Tech. Seminar)  
(Guide: Ms. Nagma Shakeel 2015-2016)
  - Title: Website for School Counsellor
  - Objective: We have created a website for school counsellors so that students can find the course that is best for them. For advice on which stream to choose, students can consult professionals.

## AWARDS AND ACHIEVEMENTS

- GATE Qualified in Computer Science and Information technology 2017, 2020
- Highest CGPA in Master of Technology, CSE at NIT Uttarakhand (Gold Medal) 2019
- Won 2<sup>nd</sup> prize in painting competition 2019

## CERTIFICATES

- Wireless and Mobile Communications
- Artificial Intelligence and Machine Learning

## STRENGTHS

- Positive Attitude, Social Interaction, Hardworking, Self motivated.

## INTEREST AND HOBBIES

- Solving Puzzles.
- Playing Badminton.
- Drawing and Painting
- Learning Swimming

## REFERENCE

- Dr. Kotaro Kataoka  
Associate Professor  
CSE Dept. IIT Hyderabad  
Email: kotaro@cse.iith.ac.in
- Dr. Abhimanyu Kumar  
Assistant Professor  
CSE Dept. NIT Uttarakhand  
Email: abhi.kumar@nituk.ac.in