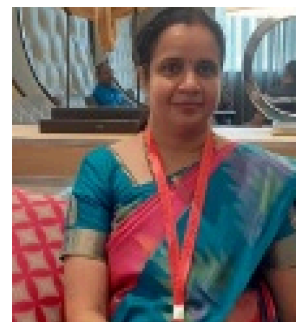# Faculty Profile

Brief Profile (Few Paragraphs)

Dr. Minal Shrinivas Moharir is a Professor and Program Coordinator for the Cyber Security Program in the Department of Computer Science and Engineering at RV College of Engineering, Bengaluru. She holds professional certifications including Certified Ethical Hacker (CEH) and Certified Cyber Forensic Investigator (CCFI) from EC-Council. With a Ph.D. in Information and Network Security, an M.Tech in Computer Network Engineering, and a B.E. in Computer Science and Engineering, she brings over 21 years of academic and research experience. Her core areas of expertise include Information Security, Ethical Hacking, Digital Forensics, Computer Networks, Wireless Sensor Networks, IoT, High-Performance Computing, and GPU Computing. She currently supervises six Ph.D. scholars in the domains of Computer Networks and HPC and has published more than 65 technical papers in reputed national and international journals and conferences.

Dr. Minal has led several government and industry-funded R&D projects focusing on cybersecurity, networking, and machine learning. She served as the Principal Investigator in establishing the NVIDIA Research Center at RVCE in 2015. Her academic and research collaborations include IIT Bombay, IIT Guwahati, CAIR–DRDO, and THWS University, Germany, where she is also listed as a visiting professor and has participated in the International Teaching Weeks in 2024 and 2025. She has also worked closely with leading industry partners such as Juniper Networks, Dell, Citrix, Nvidia, Akamai, and BlackBerry Security. A dedicated member of IEEE, ACM, and ISTE, Dr. Minal is passionate about fostering innovation and building strong academia-industry linkages. She strongly believes in integrating research with teaching to develop technically sound, socially responsible, and future-ready engineers.

.Personal Information

- **Name:** Minal S Moharir
- **Designation:** Professor
- **Department:** Computer Science & Engineering
- **Email:** minalmoharor@rvce.edu.in
- **Phone:** 9880036062

Google Scholar https://scholar.google.com/citations?user=VgdNpPQAAAAJ

Scopus: https://www.scopus.com/authid/detail.uri?authorId=54419033000

Domain of Expertise

Cyber Security and Forensics, Network and Cloud Security, High performance Computing

Research Focus

- **Primary Area:** [Computer Networks, Deep Learning, Cyber Security}
- **Allied Areas:**

o   Autonomous Vehicles, Cloud Computing, IoT, Generative AI.

Academic Qualifications

- **Ph.D.**: [Computer Science & Engineering], [Avinshi Lingam University, Coimbatore], [2014]
- **M.Tech**: [Computer Science & Network Engineering], [Visvesvaraya Technological University], [2007]
- **B,E**: [Computer Science & Engineering], [BAMU, MH], [2000]

Professional Experience

Experience			
S.No	**Institute/College/Industry**	**Job Title**	**Duration (From- To)**
1.	Government engineering College Goa	Lecturer	01.7.2001 to 31.3.2002
2.	R.V. College of Engineering, Bengaluru	Professor	12.4.2004 to till date

Publications

Journal Publications

1. Shelar, A., Moharir, M., Judgment prediction from legal documents using Texas wolf optimization based deep BiLSTM model Intelligent Decision Technologies, 2024, 18(2), pp. 1557–1576

2. Dr. D Radha, Dr. Minal Moharir, Analysis and Performance Evaluation of Genetic Algorithm based Quadtree Topology in Network-on-chip based Many-core architecture, IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 13, No. 2, June 2024, pp. 1479~1488, ISSN: 2252-8938, DOI: 10.11591/ijai.v13.i2.pp1479-1488 (Scimago Index:Q2)

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4. Dr. D Radha, Dr. Minal Moharir, Analysis and Performance Evaluation of Genetic Algorithm based Quadtree Topology in Network-on-chip based Many-core architecture, IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 13, No. 2, June 2024, pp. 1479~1488, ISSN: 2252-8938, DOI: 10.11591/ijai.v13.i2.pp1479-1488 (Scimago Index:Q2)

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6. Smriti Srivastava, Dr. Minal Moharir, Shivaneetha Gunisetty, Performance analysis of Congestion –aware Q-routing algorithm for Network on chip, IAES International Journal of Artificial Intelligence (IJ-AI)Vol. 13, No. 1, March 2024,ISSN: 2252-8938, DOI: 10.11591/ijai.v13.i1.pp798-806 (Scimago Index:Q2)

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9. D. Radha, Mushtaq Shaikh, Vamsi Silla,Minal Moharir, Application Aware Workload Allocation to optimize the performance in Network on Chip based Manycore Processor,Webology Journal, Volume 18, No. 6, 2021, Pages: 1639-1656

10. Smriti Srivastava, Dr. Minal Moharir. (2020). An Overview of Communication Methods on WiNoC. International Journal of Advanced Science and Technology, 29(3), 12876 - 12883

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12. Saiteja, M.N.S., Reddy, K.S.S., Radha, D., Moharir, M., Multi-core architecture and network on chip: Applications and challenges, Journal of Computational and Theoretical Nanoscience, ISSN 1546-1955 (Print); ISSN 1546-1963 (Online),Volume 17, Number 1, January 2020, pp:24-29

13. Anirudh Sai Nori1, Dhanush B2, Dr Minal Moharir3, Prof Ganashree KC4, A Comprehensive Study of the Techniques and Challenges of Passenger Movement Simulation in an Airport Terminal, nternational Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 07 Issue: 05 | May 2020 www.irjet.net p-ISSN: 2395-0072, pp-1279-1284

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17. GPU based Deep Learning to Detect Asphyxia in Neonates   Indian Journal of Science and Technology   International   Vol 10(3), DOI: 10.17485/ijst/2017/v10i3/110617, January 2017, pp:1-5

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Conference Papers

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8. Prabu Jayant; M Prathica Shetty; S Jeevan; Mohana; Minal Moharir; A R Ashok Kumar, Intrusion Detection in Network Traffic Using LSTM and Deep Learning 2024 15th International Conference on Computing Communication and Networking Technologies (ICCCNT)Year: 2024 | Conference Paper |

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9. Bandaru Jnyanadeep; Nikunj Mittal; Srivishnu P N; Varshith Y; Mohana; Minal Moharir; Ashok Kumar A R, Senspy: An Integrated Network Monitoring and Anomaly Detection System Using Machine Learning 2024 IEEE Space, Aerospace and Defence Conference (SPACE), Year: 2024 | Conference Paper | Publisher: IEEE, 22-23 July 2024

10. Prabu Jayant; Elvis Vincent; Mohana; Minal Moharir; Ashok Kumar A R, Smart Health Monitoring and Anomaly Detection Using Internet of Things (IoT) and Artificial Intelligence (AI) 2024 Second International Conference on Intelligent Cyber Physical Systems and Internet of Things (ICoICI), Year: 2024 | Conference Paper | Publisher: IEEE, 28-30 August 2024

11. Aryan Chaturvedi; Bhumi Lakhani; Tanisha Agarwal; Mohana; Minal Moharir; Ashok Kumar A R, A Comprehensive Vulnerability Tools Analysis for Security and Control in IT Environment and Organizations 2024 5th International Conference on Electronics and Sustainable Communication Systems (ICESC) Year: 2024 | Conference Paper | Publisher: IEEE, 07-09 August 2024

12. Shashank R B; Saurabh B Swami; Akanksha A Pai; Pranamya Mady; Sharon Thomas; Minal Moharir, Multimodal Knowledge Graph Completion Using CLIP-Enhanced Hyper-Node Relational Graph Attention Networks, 2024 5th International Conference on Electronics and Sustainable Communication Systems (ICESC), Year: 2024 | Conference Paper | Publisher: IEEE, 07-09 August 2024

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19. Aschin Dhakad, Minal Moharir, Shruti Singh. Mohana, Ashok Kumar A R, Deep Learning Algorithms for Early Alzheimer's Diagnosis: From Data to Prognosis, Real Time Network Traffic Analysis using Artificial Intelligence, Machine Learning and Deep Learning: A Review of Methods, Tools and Applications, International Conference on Self Sustainable Artificial Intelligence Systems(ICSSAS 2023)18-20, October 2023 | Erode, India, IEEE XPLORE COMPLIANT ISBN 979-8-3503-0085-7 IEEE DVD ISBN 979-8-3503-0090-1

20. Avadhut Shelar, Vihaan Nama, Jaikishan Jaikumar, Varadraj Patil Edupuganti Akhil, Minal Moharir, Smart Law Annotator: A Machine Learning-based Annotation recommendation for Judgment Prediction, 2nd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2023) Organized in In-person and Online (Hybrid Mode) by BITS Pilani, K K Birla Goa Campus, India, September 21-23, 2023

21. Pradeep G S, Minal Moharir, H Manoj T Gadiyar et, Developing a mechanism to monitor suspicious activity over the network traffic, 1st International Conference on Recent Trends in Multidisciplinary Research and Innovation" ICRMIR-2023, Lokmanya Tilak College of Engineering, Sector 4, Vikas Nagar, Koparkhairane, Navi Mumbai on 17 & 18 March 2023 sponsored by International Journal of Digital Literacy and Digital Competence.

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24. B. Shivashankar, A. M. A. Sundari, H. Surendra, S. S. Atul Sai and M. Moharir, "Deep Learning based Campus Assistive Chatbot," 2021 IEEE International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS), 2021, pp. 1-4, doi: 10.1109/CSITSS54238.2021.9683551.

25. R. Dassi, M. Vishal, M. Moharir, K. R. Pavan, S. Mitra and R. Goradia, "Efficient Mask Detection System for Low Powered Micro-Computer," 2021 IEEE International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS), 2021, pp. 1-5, doi: 10.1109/CSITSS54238.2021.9683663.

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37. Avadhut Shelar, Minal Moharir, A Comparative Study to Determine a Suitable Legal Knowledge Representation Format,   3rd IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2018) International 14th December 2018 GSSSIETW, Mysuru, Karnataka, pp: 514- 519

38. Anurag S, Minal Moharir, A Methodical Approach to Obtain High Quality Classifiers from Unprocessed Datasets IEEE International Conference On Recent Trends In Computational Engineering & Technologies, 17-18 May,2018 Department of Computer Science and Engineering, Rajarajeswari College of Engineering, Bengalure-74, pp-52-56

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40. Bharath Rahuldev Patil, , Minal Moharir, Shobha G, Pratik, Ostinato – A powerful traffic generator, 2017 2nd IEEE Sponsored International Conference on Computational System and Information Technology for Sustainable SolutionInternational   December 21-23, RV College of Engineering, Bengaluru-59, pp-210-214

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55. Minal Moharir, E-Commerce Security, International Conference MNGSA 2008 Karunya University Coimbatore, 5-6 December 2008.

56. Minal Moharir, E-Commerce Security for E-Tendering Applications, International Conference Federal Institute of Science and Technology (FISAT) Cochin, 24-26 September 2008.

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

- Working on Implementation of Enhanced Teller Loop Pneumatic Tube system, for Control Technics Pvt. Ltd, Bangalore.6.9 Lakh.
- Completed Samsung Elite Worklet titled: To design and develop a stereo depth estimation solution for real-time AR application which can run on an embedded device worth 2 Lakh.
- Completed as a Principal Investigator "Assessment of Privacy Protection in the Encrypted DNS Protocol (DoH/DoT) and Extension of the Analysis to High-Speed Networks" from CAIR, DRDO, Bengaluru, Rs. 10 Lakh.
- Principal Investigator in GPU Research Center Program, RV College of Engineering has been selected as an GPU Research Center, 2015 by Nvidia Corporation. (Received hardware worth 4.5 Lakh.

Ongoing & Completed Consultancy Projects

1. Working on Identify Cloud Services & Activities using AI/ML algorithms on Live Traffic from Juniper Network.
2. Conducted ATAL FDP on Cyber Security for Industry 4.0" (application number 1691559971) - Technically supported by EC-Council, sponsored by ATAL Academy, New Delhi is being organized

during 9th to 14th October 2023, funding 3.5 Lakh.

3. Completed project Development of an Indigenous Method for Dynamic Image Analysis of Particle Size using Digital Image Processing from Culture Instruments India LLP worth 2.95 Lakh.

4. Completed project Development of an Indigenous contact angle measurement device based on Dynamic Sessile Drop Method and Image Processing from Culture Instruments India LLP worth 1 Lakh.

5. Completed project titled Build on the GIS app to display (3D) site features on a map view from Omega Analytics Pvt Ltd, Bengaluru.

6. Completed Website development for Parent Network Pvt. Ltd, San Francisco, CA, USA

7. Completed Unity Game development titled Ispy, WordQuest for English Gurukul Pvt. Ltd, Bangalore.

8. Completed as a Principal Investigator "Assessment of Privacy Protection in the Encrypted DNS Protocol (DoH/DoT) and Extension of the Analysis to High-Speed Networks" from CAIR, DRDO, Bengaluru, Rs. 10 Lakh.

9. Received consultancy project titled "Saree components classification" from Resham Mandi, Bengaluru, Rs. 1.77 Lakh.

10. Completed as a Principal Investigator "Linux server Fault tolerance using NetScaler HA with live monitoring" 2020, 2.5 Lakh.

11. Completed as a Principal Investigator "GENERIC NETSCALER CONFIGURATION VISUALIZER" 2019, 2.5 Lakh.

12. Completed as a Principal Investigator in R & D Project, "Exploring Citrix Netscaler supported protocols using Scapy tool", 2018.

13. Completed as a Principal Investigator in R & D Project form Citrix R & D, India, Traffic Generator using Intel Data Plane Development Kit worth 2 Lakh, 2017.

14. Principal Investigator in R & D Project "User defined protocol support and DPDK integration with Ostinato" form Citrix R & D, India, worth 2 Lakh, 2016.

15. Received Nvidia GPU Hardware Research Grant worth 4 Lakh (Titan card, Jetson Tx1, Tx2, Jetson Nano 2GB: 2017, 2018, 2019, 2021 respectively)

16. Received CSIR funding worth 1 Lakh for the organization of "Computational Systems and Information Technology for Sustainable Solution" (CSITSS-2019) Conference, 2020-2021 December 2019.

17. Received CSIR funding worth 2 Lakh for the organization of "Computational Systems and Information Technology for Sustainable Solution" (CSITSS-2017) Conference, 2021-2023 December 2017.

Professional Memberships

- MISTE , IETE , IEEE, ACM

Student Supervision

- **Ph.D. Candidates Completed:** [03] Pursuing:[03]
- **M.Tech/M.Sc. Students:** [15]
- **Undergraduate Research Mentees:** [33]

Professional Roles

1. Visiting Professor at THWS, Germany, to handle course on Ethical Hacking, as a part of International Teaching week, from May 12th to 16th 2025, Technical University of Applied Sciences Würzburg-Schweinfurt.

2. Resource Person for ATAL FDP titled AI Based Cyber Security for Internet of Everything, Session IoT Hacking 21/10/2024, SSIT

3. Visiting Professor at THWS, Germany, to handle course on Ethical Hacking, as a part of International Teaching week, from June 3rd to 7th 2024, Technical University of Applied Sciences Würzburg-Schweinfurt.

4. Resource Person for Workshop on Ethical hacking from 19-21 March 2024, SSIT, Tumakuru.

5. Keynote speaker for BROADCAST-24, SSIT, Tumakuru, title 5G Security.

6. Resource Person for ATAL FDP titled Cyber Security for Industry 4.0 from 9th to 14th October 2023, Department of CSE, RV College of Engineering.

7. Handled a session on Ethical Hacking in Networking for BEL employs, at Centre for Learning and Development (CLD), BEL on 21-09-2023 as part of Network Security Training.

8. Handled a session on Introduction to Ethical Hacking for BEL employs, at Centre for Learning and Development (CLD), BEL on 10-08-2023 as part of Network Security Training.

9. Handled a session on Transport Layer Services, Quality of Service for BEL employs, at Centre for Learning and Development (CLD), BEL on 10-08-2023 as part of Complete Networking Fundamentals Training.

10. Expert Talk on "CyberSecurity: Ethical Hacking", as part of MTech orientation, March 2023.

11. Handled session on "Cicco Umbrella", CoE on IoT Internship, June 2022.

12. Expert Talk on "SVM and Quantum SVM", one-week Online Faculty Development Program on "Quantum Information Systems and Machine Learning", conducted on 23rd to 27th August 2021 at Ramaiah Institute of Technology, Bangalore.

13. Expert Talk on "Classical SVM and Quantum SVM", ATAL FDP on Quantum Computing algorithms and Machine Learning, organized by RV College of Engineering, from 02-August-2021 to 06-August-2021.

14. Handled session on "Introduction to Quantum Computing", Department of Information Technology, K. J. Somaiya College of Engineering, under the Skill Development tutorial for the research scholars, 14/06/2021.

15. Resource person: a three days online Faculty Development Program on "Data Science using R" from 28th May 2020 to 30th May 2020, K. K. Wagh Institute of Engineering Education and Research,Nashik-422003.
16. Advanced Computer Architecture, 8th November 2019, R. R. Institute of Technology.
17. Introduction Parallel Computing, AIT, CSE department, February 2017.
18. "Emerging Trends in Computer Science", BIMS, Bengaluru, August 2016.

Teaching

Core Courses: [Current semester]

- [(CY245AT))] [Computer Networks]
- [CY362IA] [Introduction to Ethical Hacking]

Advanced/Lab Courses:

- Ethical Hacking Lab
- Parallel Architecture and Distributed Programming lab

Professional Roles

- Bos Member RNSIT Cyber Security Program
- BoE Member SIT, Tumkur
- BoS Member Dr. AIT, CS–BS department
- BoS, BoE member RVCE, CSE

Responsibilities

- Part of Academic Council from Year 2023
- Part of Grading Advisory Committee for Year 2025-27
- Sports Committee Member for Year 2017-2019
- NBA Coordinator for 2016-Cycle
- Compliance Agency Committee Member 2017-2019
- Member of Various Committees for Technical/Non-technical Event

Certifications:

1. Completed Microsoft Learn for Educators Foundatinal AI Bootcamp Training 15-16 June, IIITB, Bangalore.
2. Completed Certified Hacking and Forensic Investigator(C-HFI) from EC Council, organized by IIT, Kanpur, 08 January 24 to 08 February 2024.

3. Completed Infosys Spring Board Course on Computer Network Internet Security, Network Fundamentals Oct 2023.

4. Certified Ethical Hacking Certification from EC Council, Mexico, USA, March 2023.

5. NVIDIA DLI Certificate–AI on Jetson Nano, Jan. 2023.

6. NVIDIA DLI Certificate–Fundamentals of Deep Learning for Computer Vision, June 2020.

7. Coursera course on Assessment in Higher Education, July 2020.

8. Design Thinking - A Primer, NPTEL 4-weeks Certification, July 2020.

9. MultiCore Computer Architecture-Storage and Interconnects, NPTEL Course 2018.

10. Programing in C, NPTEL Course 2018.

11. An online course on Python for beginners authorized offered by Udemy, 2017.

12. An online course on Machine Learning authorized by Stanford University and offered through Coursera, 2017.