

Dr. Hena M. (M.Tech, PhD)

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Profile Snapshot

A committed and enthusiastic professional with a keen interest in imparting knowledge to individuals in the fields of Computer Science and IT, particularly within the realms of Academics and Research. I possess extensive experience in both research and teaching, collaborating with individuals from diverse nationalities and backgrounds in India and the UAE. My research efforts have resulted in the publication of over 15 papers, focusing on Information and Network Security in areas such as FANETs, Cloud Computing, and Big Data environments. These contributions have been featured in various peer-reviewed international journals and conferences, including the authorship of a book chapter for SPRINGER.

Employment History

2023 — **Lecturer in Computer Science**, Department of Computer & Engineering, University of West London – RAK Campus, Ras Al Khaimah, UAE

Courses:

- B.Sc Computer Science
- B.Sc Cyber Security

Modules handled:

- Computer Architecture
- Algorithms and Datatype (Python)

2022 – 2023 **Research Assistant**, Information and Network Security Research Group, Research Institute for Sciences and Engineering (RISE), University of Sharjah, Main Campus, Sharjah, UAE

Projects involved:

- Detection of GPS Spoofing Attacks in Flying Ad-hoc Networks
- Detection of Stock Price Manipulation Attacks




Core Responsibilities:

- Conduct relevant state-of-the-art review
- Develop new solutions for GPS Spoofing attacks in FANET and Stock Price Manipulation attacks (Skill-set: NS-3, Python)
- Prepare project proposals for obtaining internal and external funds
- Publish high-quality journal and conference papers
- Involving in various administrative jobs related to the research group (yearly progress report, updating group's web page) - Perform other duties as and when assigned by the Supervisor
- Regular meetings with the Supervisor and other team members to discuss the progress of the projects involved








Employment History (continued)

- 2016 – 2017 ■ **Assistant Professor**, Department of Computer Science and Engineering Technology, Er-
anad Knowledge City Technical Campus, Manjeri, Kerala, India.
Courses Handled: Compiler Design, Wireless Network & Mobile Communication, Soft-
ware Engineering, Data Mining
Labs Handled: Compiler Design, Network Programming (JAVA)
Additional Responsibilities:
- Associate Program Officer- National Service Scheme
- Department Coordinator: Anti-ragging Cell, Students' Grievance Cell
- Member of Time-Table Management Committee
- Invigilator and Examiner for University Practical and Theory Examinations
- 2015 – 2016 ■ **IT Trainer cum Student Coordinator**, Zabeel International Institute of Management
and Technology, Dubai, UAE.
Courses Trained: C Programming, Networking and MS office packages to the professionals
Additional Responsibilities:
- Preparing the study materials including the updated technologies
- Advise students on issues such as course selection and career decisions
- Direct, coordinate, and evaluate the activities of personnel, including support staff
- Manage orientation, training and relocation for new faculties
- Daily scheduling & rescheduling of classes
- Assist in updating lesson content and instruction methodology
- Coordinating with various branches upon requirement
- Ensuring the students and trainers are provided with essential study materials
- Informing students and trainers about any class cancellation if any
- Trainers' & other employees' salary calculation
- Student's attendance register quality evaluation
- Trainer checklist before batch starts
- Getting feedback from students.
- 2014 – 2015 ■ **Lecturer and Course Coordinator in Computer Science**, School of Distance Educa-
tion, University of Kerala, India.
Courses Handled: Programming in C, Computer Architecture and Organisation
Labs Handled: C Programming
Additional Responsibilities:
- Examiner of University Theory and Practical Exams
- Arrange contact classes in various direct study centers
- Collect internal marks from study centers & forward to the Controller of Examinations
- Give proposals for the conduct of exams
- Make arrangements to prepare and distribute the study materials
- Revise the syllabus from time to time
- 2013 – 2014 ■ **Vice Principal and Faculty Member Computer Science**, Infodynamics Learners Sup-
port Centre, School of Distance Education, University of Kerala, India.
Courses Handled: Computer Organization, Programming in C
Additional Responsibilities:
- Day to day management and coordination of academic programs
- Ensuring discipline, decorum and team spirit among the students and staff
- Planning and executing best practices in the teaching-learning environment

Education




- 2017 – 2022  **Ph.D., VIT University** Vellore, Tamilnadu, India
Thesis title: *Authentication Scheme for Kerberized Hadoop Environment*.
- 2011 – 2013  **M.Tech. Software Technology, VIT University** Vellore, Tamilnadu, India.
Thesis title: *Detection and Mitigation of DDoS Attacks in Cloud Computing Environment*.
- 2007 – 2011  **B.Tech. Computer Science and Engineering, Cochin University of Science and Technology** Cochin, Kerala, India.

Certifications

- 2023  **Python Project for Data Science**. Awarded by IBM, Coursera.
 **Python for Data Science, AI & Development**. Awarded by IBM, Coursera.
 **Getting Started with Machine Learning**. Awarded by IT Expert Training.
- 2021  **Security and Privacy of Big Data**. Awarded by EIT Digital, Coursera.
- 2020  **Data Science With Python Programming**. Awarded by Bharat Institute of Engineering and Technology (BIET) under ACM & CSI Chapters.
- 2017  **Introduction to Big Data** . Awarded by University of California, San Diego on Coursera.
 **Big Data Integration and Processing** . Awarded by University of California, San Diego on Coursera.

Research Publications (Scopus ID: 57211903210)

Journal Articles

- 1 Hena, M., Altaweel, A., & Kamel, I. (2023). *GPS Spoofing Attacks in FANETs: A Systematic Literature Review*. *IEEE Access (SCOPUS INDEXED, IF: 3.476 as on 2023, Q1)*.  doi:10.1109/ACCESS.2023.3281731
- 2 Hena, M., & Jeyanthi, N. (2022). *A Survey on Hadoop Security and Comparative Analysis on Authentication frameworks in Hadoop Clusters*. *ECS Transactions (ECST) ((SCOPUS INDEXED), 107, 259–268)*.  doi:https://doi.org/10.1149/10701.0259ecst
- 3 Hena, M., & Jeyanthi, N. (2021b). *A Three-tier Authentication Scheme for Kerberized Hadoop Environment*. *Cybernetics and Information Technologies ((SCOPUS INDEXED,Q2), 21, 119–136)*.  doi:10.2478/cait-2021-0046
- 4 Hena, M., & Jeyanthi, N. (2021d). *Distributed Authentication Framework for Hadoop based Bigdata Environment*. *Journal of Ambient Intelligence and Humanized Computing (SCOPUS INDEXED, IMPACT FACTOR 3.662 as on 2021, Q1)*.  doi:doi.org/10.1007/s12652-021-03522-0
- 5 Hena, M., & Jeyanthi, N. (2019). *Authentication Framework for Kerberos Enabled Hadoop Clusters*. *International Journal of Engineering and Advanced Technology (SCOPUS INDEXED), 9, 510–519*.  doi:10.35940/ijeat.A9638.109119
- 6 Hena, M., & Jeyanthi, N. (2014). *RESCUE: Three Phase Authentication to Detect and Prevent DDoS attacks in Cloud Computing Environment*. *International Journal of Engineering, Transaction B: Applications (SCOPUS INDEXED & IMPACT FACTOR 0.232 as on 2014), 27, 1137–1146*.  doi:10.5829/idosi.ije.2014.27.08b.03
- 7 Hena, M., & Jeyanthi, N. (2013a). *Credit Based Methodology to Detect and Discriminate DDoS Attack from Flash Crowd in a Cloud Computing Environment*. *International Journal of Network Security & Its Applications (ERA INDEXED), 5, 129–138*.  doi:10.5121/ijnisa.2013.5511
- 8 Hena, M., & Jeyanthi, N. (2012a). *A Study on Security Threats in Cloud*. *International Journal of Cloud Computing and Services Science (SCOPUS INDEXED), 1, 84–88*.  doi:10.11591/closer.v1i3.702

Conference Proceedings

- 1 Hena, M., Altaweel, A., Kamel, I., & Aghbari, Z. (2023). *On Detecting of GPS Spoofing attacks in Flying Ad-hoc Networks: A Comparative Study*. In *Proceedings of 5th International Multi-Conferences, (ASET 2023)*, Dubai, UAE.
- 2 Hena, M., & Jeyanthi, N. (2021a). *A Survey on Hadoop Security and Comparative Analysis on Authentication frameworks in Hadoop Clusters*. In *Proceedings of First International Conference on Technologies for Smart Green Connected Society 2021 (ICTGS 2021)*, USA.
- 3 Hena, M., & Jeyanthi, N. (2020). *Blockchain based Authentication Framework for Kerberos enabled Hadoop Clusters*. In *Proceedings of 10th International Conference on Soft Computing for Problem Solving (SocPros 2020)*, IIT, Indore, India.
- 4 Hena, M., & Jeyanthi, N. (2018). *Challenges in Big Data Security*. In *Proceedings of International Virtual Conference on Recent Trends, Challenges in Image Analysis and Information Security (IVC-RTCIAIS 2018)*, VIT, Vellore, Tamilnadu, India.
- 5 Hena, M., Babu, S., Vivek, E. M., Famina, K. P., Fida, K., Aswathi, P., & Shanid, M. (2017). Heart disease diagnosis using data mining technique. In *2017 international conference of electronics, communication and aerospace technology (iceca)* (Vol. 1, pp. 750–753). doi:10.1109/ICECA.2017.8203643
- 6 Hena, M., & Jeyanthi, N. (2013b). *Framework to Detect and Discriminate DDoS Attack from Flash Crowd in Cloud*. In *Proceedings of Second International Conference on Networks & Communications, (ICNC 2013)*, Delhi, India.
- 7 Hena, M., & Jeyanthi, N. (2012b). *Distributed Denial of Service Attack in Cloud*. In *Proceedings of 5th International SET Conference, (SET 2012)*, Vellore, India.
- 8 Hena, M., & Jeyanthi, N. (2011a). *Detection and Discrimination of DDoS and Flash crowds in a Cloud*. In *Proceedings of 4th International SET Conference, (SET 2011)*, Vellore, India.
- 9 Hena, M., & Jeyanthi, N. (2011b). *Simulation of a Mathematical Approach to Detect and Prevent DDoS in Cloud*. In *Proceedings of 3rd International SET Conference, (SET 2011)*, Vellore, India.

Books and Chapters

- 1 Hena, M., & Jeyanthi, N. (2021c). *Blockchain based Authentication Framework for Kerberos enabled Hadoop Clusters*. In (. Tiwari A.; et al. (Ed.), *Soft Computing for Problem Solving. Advances in Intelligent Systems and Computing* (Vol. 132). doi:10.1007/978-981-16-2709-5_24

Skills







Languages	Strong reading, writing, and speaking competencies in English, Malayalam, and Hindi.
Coding	C, C++, Java, JSP, Java Servlets, PHP, Python, R, SQL, \LaTeX .
Databases	MySQL
Web Dev	HTML, CSS, JavaScript, Apache Tomcat Web Server.
Tools	Oracle VM VirtualBox, NS3, GNUplot, Inkscape, QUALNET, Riverbed Modeller (OPNET), CloudSim, OMNeT++, Google Colab.
Misc.	Academic Research, Teaching, Training, Consultation, \LaTeX Typesetting and Publishing.

Miscellaneous Experience




Programmes Organised

- 2017  **A Beginner's workshop on LaTeX for Researchers** , Eranad Knowledge City Technical Campus, Kerala, India
- 2016  **Tech Talk on Cyber Security and Defensive Programming** , Mr. Anil Kumar K.G, Cyberdome, Kerala Police, Trivandrum, India

Programmes Attended

- 2024  **Online FDP on "Cyber Security & Forensics"**, Mangalam College of Engineering, Kerala, India.
- 2023  **8th International Student Research Colloquium on Advances in Engineering & Information Technology** as Session Chair, Manipal Academy of Higher Education, Dubai Campus, UAE.
 -  **2nd Annual Meeting of Center of Data Analytics and Cyber Security** representing our Research Group - Information and Network Security, Research Institute of Sciences and Engineering, University of Sharjah, UAE.
- 2020  **Technical Talk on Blockchain Get to know B word Better** , Mr. Jinu Babu, Global Head - Services, TCS Blockchain, Organised by Computer Society of India, Trivandrum Chapter
- 2017  **Data Analytics using R Programming** , UL Cyber Park, Calicut, Kerala, India
- 2016  **Ph.D Directions in Cloud**, Sree Narayana Guru College of Engineering, Kolancheri, Kerala, India

References

1. **Dr. Ala Altaweel, Coordinator of Information & Network Security Research Group**, Assistant Professor, University of Sharjah, Sharjah, UAE
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2. **Dr. N. Jeyanthi, M.Tech & PhD Supervisor**, Associate Professor, VIT University, Vellore, India.
 njeyanthi@vit.ac.in
3. **Dr. B. Priestly Shan, Principal at Eranad Knowledge City Technical Campus**, Pro Vice-Chancellor (Academic Affairs), Chandigarh University, India.
 priestlyshan@gmail.com