

**Name** : Dr A Sabitha Banu

**Designation** : Assistant Professor

**Department** : Department of Computer Science with Cyber Security

**Qualification** : MCA.,Ph.D.

**Experience** : 7 Years

**Research** : 6 Years

**Area of Specialization(s):** Cybersecurity, IoT, M2M networks

**Email (Official ID)** : sabithabanu@psgrkcw.ac.in



#### Academic Qualifications

Degree	Branch	Institution / UniversityName	Year of Graduation
Ph.D.	Computer Science	Avinashilingam Institute for Home Science and Higher Education for Women	2022
MCA	Computer Applications	Avinashilingam Institute for Home Science and Higher Education for Women	2007
B.Sc.	Information Technology	Avinashilingam Institute for Home Science and Higher Education for Women	2004

#### Additional Qualifications

Diploma/ Vocational/ Certification	Area of Specialization	Institution/University/Agency Name	Year
Certification	Coursera	EC-Council "Digital Forensics Essentials (DFE)"	2025
		Google "Foundations of Cybersecurity"	2025
		IBM Tools for Data Science V2	2025
		Microsoft Azure AI Engineer	2025
		Programming for Everybody (Getting Started with Python) by University of Michigan	2021
Certification	Udemy	TJ Walker "The Complete Communication Skills Master Class for life"	

## **Research Publication (Indexed)**

### **International**

- Sabitha Banu. A; Isbudeen Noor Mohammed. A systematic review on privacy preserving techniques in fog computing: issues, challenges, and solutions. Recent Advances in Computer Sciences and Communications 2025.
- Manjula Devi Ramasamy,Rajesh Kumar,Subhendu Kumar,Rashmi Prava Das,Ali Akbar,Mehdi Gheiseri,Yang Liu,P.Porkar,Sabitha Banu. A;An improved deep convolutionary neural network for bone marrow cancer detection using image processing. Informatics in Medicine Unlocked 2023.
- Sabitha Banu. A; Padmavathi.G. Hybrid Detection and Mitigation of DNS Protocol MITM attack based on Firefly algorithm with Elliptical Curve Cryptography. EAI Endorsed Transactions on Pervasive Health and Technology 2022,E3 vol.8,issue. 4.
- Sabitha Banu. A; Padmavathi.G. Detection and Mitigation of ARP Poisoning using ConvLSTM and Elliptical curve cryptography. Journal of Maharaja Sayajirao University of Baroda 2021,vol.55 No.1(III), ISSN:0025-0422, pp. 96-114.
- Sabitha Banu. A; Padmavathi.G. Detection of Spoofed IP nodes using BAT Algorithm and Extreme Learning Machine. International Journal of Engineering and Advanced Technology (IJEAT) 2019, vol.9 issue.2, pp. 771-778.
- Sabitha Banu. A; Padmavathi.G. A Survey of Computational Intelligence Methods used in handling Man in the Middle Attacks in Machine to Machine Communications. International Journal of Engineering Research & Technology (IJERT) 2019, vol. 8, issue. 8, pp. 218-256.
- Sabitha Banu.A.,Yasir,Maryam Munir , ” Ethical and Cybersecurity Considerations in AI and Robotics for Assistive Technologies ” , International Conference and Forum on Assistive Technologies for Special Needs (ATSN’24).
- Hema.D , Sabitha Banu.A. ,Karthiga .G.K, ”A Survey of 5G applications in Smart Cities” , International Conference on Advanced Computing,(ICAC 2023).
- Sadoon Hussein, Abida Thasin, Ahmed Sami, Sabitha Banu.A. ”Secure AI Based FANETs: Trusted Communication” 5<sup>th</sup> International Conference on Innovative Computing and Communication , Springer,(ICICC 2022).
- Sabitha Banu.A. , G.Padmavathi, ”Detection and Mitigation of Border Gateway Protocol Spoofing Using Hybrid Bat Optimization Algorithm and Cryptography” , International Conference on IoT Based Control Networks and Intelligent Systems , Elsevier,(ICICNIS 2020), pp. 312-327.
- Mehdi Gheisari, Aaqif Afzaal Abbasi, Zahra Sayari, Qasim Rizvi, Alia Asheralieva,Sabitha Banu.A., ”A Survey on Clustering Algorithms in Wireless Sensor Networks: Challenges, Research, and Trends” , International Computer Symposium , IEEE,(ICS 2020).

- M. Hossein Ahmadzadegan, M. Izadyar, Hossein Amini Deilami, Sabitha Banu.A. , Hamidreza Ghorbani , "Detailed Study on the Features of Mobile Applications" , 2020 International Conference on Electronics and Sustainable Communication Systems , IEEE,(ICESC 2020),pp. 901-907.
- M. Hossein Ahmadzadegan; Hamidreza Ghorbani Sabitha Banu.A. , Z. Noori , "Evaluation of Energy Efficiency in Mobile Phones from Two Perspectives: Location and Retrieve Content" , 2020 International Conference on Electronics and Sustainable Communication Systems , IEEE,(ICESC 2020), pp. 908-912.
- Participated in the UGC-DST-CURIE sponsored International Conference on SMAC-Reshaping the Future organized by the Department of Computer Science, Avinashilingam Institute for Home Science and Higher Education for Women on 9th Feb 2018.

#### **Other Publications: National**

- Sabitha Banu. A. " Zero Trust Architecture", National Conference on Innovations in Cyber Security Technology (NCICST 2024).
- Hema.D, Sabitha Banu. A. "Applications of Hybrid Fuzzy Neural Networks in the field of Medicine", National Conference on Computational Intelligence and Applications, (NC2IA-2K23).
- Sabitha Banu.A. , "A Model for Data Leakage Detection using Allocation Strategies" , State level Conference on Computer Vision organized by Department of Computer Science, Angappa College of Arts and Science, Coimbatore,held on 3rd Feb 2012.
- Sabitha Banu.A. , "A Overlay Networking Architecture for Heterogenous Mobile Computation", National Conference on Advanced Computing Technologies.
- Sabitha Banu.A. , "Applied Behavior Analysis" , National Conference on Advanced Computing Technologies , (NCACT'12) organized by the department of Computer Science and Computer Applications, Vivekananda College for Women on 17th Feb 2012.

#### **Book Chapter Published**

- Yasir Khan Sabitha Banu.A.,Junaid Yousaf, " Advancement in ML Techniques and Applications for UAV Swarm Management:Unmanned Aerial Vehicles Swarm for Protecting Smart Cities: Future Trends and Challenges ", Springer Nature Apress Publisher ISBN-13:979-8868810466 (2025).
- Sanfiya Sabitha Banu.A., " Digital Twins & Industry 5.0 On Food Management :Food and Industry 5.0: Transforming the Food System for a Sustainable Future ",Springer Cham Publisher eBook ISBN 978-3-031-76758-6 (2025).
- Abinaya Keerthana S Sabitha Banu.A. , " AI for Intelligent computing :Future Trends & Applications :Big Data Intelligence in Healthcare ", CRC Press ,Taylor and Francis Publisher (2023).
- Mirthika S Sabitha Banu.A. , " AI for Intelligent computing :Future Trends & Applications : AI BASED COMPUTING APPLICATIONS FUTURE COMMUNICATION", CRC Press ,Taylor and Francis Publisher (2023).

- Sabitha Banu.A. G.Padmavathi,"Lecture Notes in Computer Science: Taxonomy of UAVs GPS Spoofing and Jamming attack detection methods", Springer series: Studies in Computational Intelligence (2022).

### **Letter of Appreciation**

- Handled as a Resource Person for JOC -MSW students on "GEN-AI"

### **Acted as a Resource Person**

- Acted as a Keynote Speaker in 1st International Conference on Emerging Trends & Innovation (ICETI 2024).

### **Reviewer in journal**

#### **International**

- Indonesian Journal of Electrical Engineering and Informatics (IJEI).
- International Journal of Wireless Information Networks.
- Artificial Intelligence and Applications.
- International Journal of Web Research.
- CMC/ SI: Security and Privacy in IoT and Smart City: Current Challenges and Future Directions.

#### **International Journal/Conference Editor:**

- AIoT's EMERGING TECHNOLOGIES and FUTURE APPLICATIONS.

### **Participation in Conference -**

- Sabitha Banu.A., "Zero Trust Architecture", National Conference on Innovations in Cyber Security Technology (NCICST 2024).
- Hema.D, Sabitha Banu.A., "Applications of Hybrid Fuzzy Neural Networks in the field of Medicine", National Conference on Computational Intelligence and Applications, (NC2IA-2K23).
- Sabitha Banu.A. , "A Model for Data Leakage Detection using Allocation Strategies" , State level Conference on Computer Vision organized by Department of Computer Science, Angappa College of Arts and Science, Coimbatore, held on 3rd Feb 2012.
- Sabitha Banu.A. "An Overlay Networking Architecture for Heterogenous Mobile Computation", National Conference on Advanced Computing Technologies.
- Sabitha Banu.A, "Applied Behavior Analysis" , National Conference on Advanced Computing Technologies , (NCACT'12) organized by the department of Computer Science and Computer Applications, Vivekananda College for Women on 17th Feb 2012.

### **Participation in Workshop**

- Attended "DST-FIST Sponsored Two days National Level Workshop on Digital Forensics -A Hands-on Approach organized by Department of Applied Mathematics and Computational Sciences, PSG College of Technology ,Coimbatore held on 28th and 29th Mar 2025

- Attended a workshop on Top Data Science Online Platforms organized by AIDA (Artificial Intelligence and Data Analytics) Lab, Prince Sultan University, Kingdom of Saudi Arabia held on 03rd Nov 2022
- Attended a workshop on Resource management in fog computing environment (IoT) organized by AIDA(Artificial Intelligence and Data Analytics) Lab ,Prince Sultan University, Kingdom of Saudi Arabia held on 30th Oct 2022.
- Attended an online workshop on Cyber Security and Digital Forensics from 26 th Aug 2021 to 30th Aug 2021 organized by Aligarh Muslim University.
- Participated in a 3-day Workshop on CITATION TOOLS AND TECHNIQUES organized jointly by Departments of computer Science and Engineering and Information Technology, CVR College of Engineering from 19th July to 21<sup>st</sup> July 2021.Participation in Faculty Development Programme
- Participated in the International Workshop on Is Blockchain and AI - solution for Cybersecurity Organized by Connected Computing and Media Processing Lab, Kyungpook National University, South Korea in collaboration with the Department of Information Technology, School of Physical Sciences and Computational Sciences, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, India on 01.10.2020.
- Participated in the International Workshop on Cyber Attacks and Attack Handling Methods organized by the Department of Information Technology, School of Physical Sciences and Computational Sciences, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore in collaboration with Connected Computing and media Processing Lab, Kyungpook National University, South Korea on 30.09.2020.
- Attended a Two-day National Level Workshop on AI-CS-Modern Artificial Intelligence Techniques for Cyber Security organized by the Department of Computer Science and Engineering, Jason Institute of Technology on 3rd and 4<sup>th</sup> Jan 2019.
- Participated in the DST-CURIE sponsored one day workshop on Scholarly Communication and Quality Journal paper writing at Avinashilingam Institute for Home Science and Higher Education for Women on 28th July 2017.
- Participated in the One-day workshop on Effective use of SciFinder in Research organized by the Department of Chemistry, Avinashilingam Institute for Home Science and Higher Education for Women on 9th August 2017.
- Participated in the Faculty Development Workshop entitled Changing Paradigm in collegiate Teaching held on 20<sup>th</sup> Nov 2010 at Sree Narayana Guru College, Coimbatore.

#### **Participation in Webinar**

- Attended a Webinar on CORAL: An Open Source Electronic Resource Management System organized by DELNET-IIT Delhi held on 07th Mar 2024.

- Attended a webinar on The Future of Warfare Drones & Artificial Intelligence organized by Engineer Talks held on 23 rd Nov 2021.
- Participated a webinar entitled Enterprise Artificial Intelligence: Data Analytics, Data Science and Machine Learning organised by Field Marshal KM Cariappa College, Madikeri held on 24th December 2020.
- Attended a webinar on ENHANCING MANUSCRIPT WITH ENDNOTE held on 14th September 2020 organized by the Library, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore in collaboration with Clarivate Analytics, Chennai.
- Participated in one day webinar on Introduction to Deep Learning organized by the Department of Information Technology, School of Physical Sciences and Computational Sciences, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore on 17th June 2020.

#### **Conference/Seminar/Workshop Organized**

- The InnoTech Expo, organized by the Department of Computational Sciences at PSGR Krishnammal College for Women, February 24-25, 2025

#### **Membership in Professional Bodies**

<b>Name of the Professional Body</b>	<b>Nature of membership</b>	<b>Duration</b>
IEEE Systems Council	member	1 year

#### **Indexing and Citations**

Google Scholar Citations -119      h-index: 6      i10-index: 3      Research gate Score :90.1

#### **Contribution**

- Department Association In-charge
- Acting as a Department Placement coordinator since 2024