

# JASMINE B GNANADURAI

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ORCID: <https://orcid.org/0000-0003-4213-0017>

Scopus Id: 56708765500

## EDUCATION

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### **Ph.D. Computer Science**

*Anna University, Chennai, Tamil Nadu, India*

2017

Advisor: Sahaaya Arul Mary

### **M.Phil Computer Science**

*Bharathidasan University, Trichy, Tamil Nadu, India*

### **Master of Computer Applications**

*Bharathidasan University, Trichy, Tamil Nadu, India*

### **Bachelor of Science**

*Bharathidasan University, Trichy, Tamil Nadu, India*

## RESEARCH INTERESTS

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Machine Learning, Deep Learning, Wireless Sensor Networks, Mobile Ad hoc Networks, Data Mining

## PROFESSIONAL & ACADEMIC EXPERIENCE

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Associate Professor, Department of Electrical and Computer Science Engineering,

George Fox University (Oregon, USA)

August 2024 – Present

Assistant Professor, Department of Computer Science, Kristu Jayanti College (Bangalore, India)

Dec 2017 – Dec 2023

Assistant Professor, Department of Computer Applications, Dr. D. Y. Patil Institute of Master of Computer Applications (Pune, India)

Aug 2012 – Nov 2017

Assistant Professor, Department of Computer Science, J.J College of Engineering and Technology (Tiruchirappalli, India)

Jun 2009 – Nov 2011

Lecturer, Department of Computer Applications, Karunya Institute of Technology and Sciences, Private University (Coimbatore, India)

Jun 2005 – Dec 2005

Lecturer, Department of Computer Science, Bishop Heber College (Tiruchirappalli, India)

Jul 2001 – May 2005

## INTERNATIONAL JOURNAL PUBLICATION

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Veerachamy, V., George, A., **Jasmine Beulah Gnanadurai**. (2024). Intelligent Analysis of Student Feedback in Post-course Assessment Using a Multiclass Classification Model. In: Intelligent Systems Design and Applications. ISDA 2023. Lecture Notes in Networks and Systems, vol 1052. Springer, Cham. [https://doi.org/10.1007/978-3-031-64776-5\\_36](https://doi.org/10.1007/978-3-031-64776-5_36)

**Jasmine Beulah, Gnanadurai**., Vinothina, V., Prakash, V.S., Sandhya, M., Vignesh, K. (2024). Enhancing Agriculture Productivity with IoT-Enabled Predictive Analytics and Machine Learning. In: Data Management, Analytics and Innovation. ICDMAI 2024. Lecture Notes in Networks and Systems, vol 997. Springer, Singapore. [https://doi.org/10.1007/978-981-97-3242-5\\_6](https://doi.org/10.1007/978-981-97-3242-5_6)

Augustine George, Vinothina V, **Jasmine Beulah Gnanadurai**, “Neural Network-Based Crowd Counting Systems: State of the Art, Challenges, and Perspectives”, Journal of Advances in Information Technology, Vol.14(6): 1450-1460. doi: 10.12720/jait.14.6.1450-1460

**Jasmine Beulah Gnanadurai**, Vinothina V, "Optimization of Outlier Nodes of DBSCAN using PSO in Zone-Based Wireless Sensor Networks", 2023 Fifth International Conference on Electrical, Computer and Communication Technologies (ICECCT), ISBN:978-1-6654-9360-4, July 2023.DOI: 10.1109/ICECCT56650.2023.10179691.

**Jasmine Beulah Gnanadurai**, Vinothina V, Pratap G, Increasing Student’s Interaction and Recommendation on Learning Roadmap, Indian Journal of Natural Sciences, Vol. 13, Issue 71, April 2022.

Vinothina V, **Jasmine Beulah Gnanadurai**, A Study on Surveillance System Using Deep Learning Method, Proceedings of 2<sup>nd</sup> International Conference on Ubiquitous Computing and Intelligent Information Systems, 10-11 March 2022.

Vinothina V, **Jasmine Beulah Gnanadurai**, Review on Mapping of Tasks to resources in Cloud Computing, IGI Global in International Journal of Cloud Applications and Computing, pp 1-17, Vol.12, January 2021.

**Jasmine Beulah Gnanadurai**, Performance Evaluation of Routing in Enhanced Zone Based Clustering Protocol in Wireless Sensor networks, Journal of Critical Reviews, Vol.07, Issue 3, July 2020.

**Jasmine Beulah Gnanadurai**, Cloud Computing Framework for Clustered Zone based Wireless Sensor Networks, Dogo Ransack Research Journal, Vol.10, Issue -07, No.02, July 2020.

**Jasmine Beulah Gnanadurai**, Antech Cluster- A Novel Technique for Clustering in Wireless Sensor Networks, International Journal of Research and Analytical Reviews, June 2019.

**Jasmine Beulah Gnanadurai**, A review on Text Classification Algorithms and their Applications, International Journal of Computer Sciences and Engineering (IJCSE), April 2019.

**Jasmine Beulah Gnanadurai**, Optimization of Cluster Head Election in Zone Based Wireless Sensor Networks using Genetic Algorithm, International Journal of Computer Engineering & Applications (IJCEA), vol.12, Issue 12, December 2018 ISSN No. 2321- 3469.

**Jasmine Beulah Gnanadurai**, S. Thirumurugan, A Novel Application based Generic Cluster Creation

Mechanism in Ad hoc Networks, International Journal of Computer Networks and Applications. DOI: 10.22247/ijcna/2017/49142, pp. 113-120.

**Jasmine Beulah Gnanadurai** and Sahaaya Arul S A Mary , Enhanced Zone Stable Election Protocol based on Fuzzy Logic for Cluster Head Election in Wireless Sensor Networks, International Journal of Fuzzy Systems, Vol. 19, No.3 (2017), ISSN 1562-247 DOI 10.1007/s40815-016-0181-1.

S.A. Sahaaya Arul Mary, **Jasmine Beulah Gnanadurai**, "Fuzzy Logic Approach to Zone-Based Stable Cluster Head Election Protocol-Enhanced for Wireless Sensor Networks", KSII Transactions On Internet And Information Systems Vol. 10, No. 4, Apr. 2016, ISSN: 1976-7277  
<http://dx.doi.org/10.3837/tiis.2016.04.013>

**Jasmine Beulah Gnanadurai** and Sahaaya Arul S A Mary, Deterministic Partition Protocol In Zone Based Wireless Sensor Networks, International Journal of Applied Engineering Research, Volume 10, Number 9 (2015) pp. 23779-23796.

**Jasmine Beulah Gnanadurai** and Sahaaya Arul S A Mary, Intra-Cluster Optimization In Zone- Based Wireless Sensor Networks Using DBSCAN, International Journal of Applied Engineering Research, Volume 10, Number 7 (2015) pp. 18811-18824.

**Jasmine Beulah Gnanadurai** and Sahaaya Arul S A Mary, A Zone-based Clustering Protocol for Wireless Sensor Networks, 9th International Conference on Computer Engineering and Applications, pp. 151-161, Dubai, February 2015.

**Jasmine Beulah Gnanadurai** and Sahaaya Arul S A Mary, A Novel Predictive and Non-Predictive Cooperative Model for Routing in Ad Hoc Networks. International Journal of Computer Applications 102(15):32-37, September 2014.

**Jasmine Beulah Gnanadurai** and Sahaaya Arul S A Mary, A Cooperative Communication Aware Algorithm to identify Stable Routes in Mobile Ad hoc Networks, European Journal of Scientific Research, ISSN 1450-216X Vol.79 No.1 (2012), pp.110-118.

## **BOOK PUBLICATIONS**

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**Jasmine Beulah Gnanadurai**, Vinothina V, Prakash VS, “**Web Programming**”, Kalyani Publications, ISBN: 978-93-5540-827-3, December 2023.

**Jasmine Beulah Gnanadurai**, Prakash VS, Vinothina V, “**Advanced Java Programming**”, Nithya Publications, ISBN: 978-93-5857-016-8, October 2023.

## **SPRINGER BOOK CHAPTER**

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**Jasmine Beulah Gnanadurai**, S. Thirumurugan, Vinothina V “Exploring Immersive Technology in Education for Smart Cities”, Immersive Technologies in Smart Cities, Springer Book Chapter, July 2021.

S.Thirumurugan, **Jasmine Beulah Gnanadurai** “Cloud Computing Model on Wireless Ad hoc Network Using Clustering Mechanism for Smart City Applications”, Immersive Technologies in Smart Cities, Springer Book Chapter, July 2021.

## **PATENT**

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“A Secure Architecture Using Block Chain Technology For Shared Electric Vehicle Charging”, Dr.

Aruna Devi K,Dr. Mary Jacob,Dr. Gopika S,Dr. K. Kalaiselvi,Dr. Vinothina V,Dr. G. Jasmine Beulah,  
Design No.398125-001, Date of Issue: 15/01/2024.

“SUAV: Women Security : Automatic Women Security Using Street Light and Auto Run  
UnmannedAerial Vehicle Using IoT Based Technology” , Mary Jacob, Kalaiselvi, Jasmine Beulah G,  
Aswin Herbert, Gopika, Amjad Indian patent filed in November 2020, No. 202041051864.

## **CONFERENCES/WORKSHOPS/SEMINARS ORGANIZING/ PARTICIPATION**

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Attended Faculty Development Programme (FDP) on “Deep Learning Case Studies”, Christ University, 25  
– 31October, 2023.

Attended National Level Faculty Development Programme (FDP) on “Advanced Research Trends in  
Computing”, Kristu Jayanti College, Bengaluru, 12 – 17 June, 2023.

Attended Two Week Refresher Course in Computer Science, 13 - 27 March, 2023.

Presented the research paper titled “Optimization of Outlier Nodes of DBSCAN using PSO in  
Zone based Wireless Sensor Networks” in the 2023 Fifth IEEE International Conference on  
Electrical, Electrical, Computer and Communication Technologies (ICECCT 2023) held at  
VellalarCollege of Engineering & Technology, Erode, Tamil Nadu, India during 22 - 24, February  
2023.

Attended Two Week Refresher Course in “Computer Science”, 02 – 16 May, 2022.

Participated in Six Days FDP on Unlocking the Power of Library on Research, Kristu Jayanti  
College, Bengaluru, 23-28 May, 2022.

Participated and completed successfully ATAL Academy FDP on “Industry Oriented FDPon  
Artificial Intelligence”, 7-11 June, 2021.

Participated in IP Awareness Training Program under National Intellectual Property Awareness  
Mission, 18 February, 2022.

Participated in the FDP on “Institutionalization of Outcome Based Education”,Kristu  
Jayanti College, Bengaluru, 16-23 February, 2021.

Participated in the Virtual National Conference on Theoretical and Applied Statistics, KristuJayanti  
College, Bengaluru, 9-10 February, 2021.

Participated in the FDP on "Data Analytics with R", Presidency College, Bengaluru, 15-16  
October, 2019.

Attended workshop on "AI and Blockchain at Edge", IEEE Bangalore Section Industry Relations,10  
May 2019.

Participated in the FDP on “Python Programming”, Department of Computer Science, Kristu  
Jayanti College, 21-22 March, 2018.

Participated in Two-Day FDP on “Mobile App Development”, ICT Academy, Kristu Jayanti College, Bangalore, 19-20 November, 2018.

Co-Convenor and participated in Two-Day Science Academies Lecture Workshop on “Introduction to Machine Learning”, 29-30 November, 2018.

Convenor in Organizing and participated in IEEE Two Day Workshop on Design, Development and Deployment of Machine Vision Intelligence in IOT Edge”, Department of Computer Science, Kristu Jayanti College, Bangalore, 14-15 November, 2018.

Organized & Participated, FDP on “Latex - A Document Preparation System”, Department of Computer Science, Kristu Jayanti College, Bangalore, 25 April, 2018.

Participated in AICTE & ISTE approved STTP on “Software Testing using Open Source Tool”, Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune, 06-10 June, 2017.

Participated in One Week Faculty Development Program on “Big Data Analytics using Hadoop”, Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune, 06-10 December 2016.

Participated in One Day State Level Workshop on “Advanced Techniques to Write and Present Research Paper and Patent”, Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune, 09 July, 2016.

Organized the State Level Workshop on Cloud Computing, Dr. D. Y. Patil Institute of MCA, Akurdi, Pune, 18-19 February, 2016.

Co-convenor in organizing National Conference on Advances in Computing and Management (NCACM 16), at Dr. D. Y. Patil Institute of MCA, Akurdi, Pune, 29-30 January, 2016

Best Invited paper at 9 International Conference on Computer Engineering and Applications (CEA '15), Feb 22-24, 2015, Dubai.

Organized National Seminar on “Research Methodology”, Dr. D. Y. Patil Institute of Master of Computer Applications”, Feb 27-28, 2015, Pune.

Organized National Seminar on “Data Mining”, Dr. D. Y. Patil Institute of Master of Computer Applications”, July 2014, Pune.

Participated in AICTE Sponsored National Seminar on “Cyber Crime and Cyber Security”, IICMR, Nigdi, Pune, 27- 28 September, 2013.

Participated in Faculty Development Programme on “Leadership and Life Reinvention Strategies, Kolvan, 31-01 September, 2013.

Participated in ISTE – SRM Sponsored Short Term Training Program on Application of Data Mining in Software Fault Prediction, Jayaram College of Engineering & Technology, Tiruchirappalli, Tamil Nadu, India, 6 – 11 May, 2013.

Participated in Four Days TECS Week on “Cyber Physical Systems” at Tata Research Development and Design Centre, Pune, Maharashtra, India, January 9-12, 2012.

Participated in A Short-Term Course on “Self-Awareness and Integral Education” at Jayaram College of Engineering and Technology, Tiruchirappalli, Tamil Nadu, 29 Sept – 1 Oct 2011.

Participated in A Two-Day Workshop on “Recent Advances in Computing Technologies”, at J.J College of Engineering and Technology, Tiruchirappalli, Tamil Nadu, March 2011.

Participated in Four Days Workshop on “Network Simulation using NS-2”, Periyar Maniammai University, Thanjavur, Tamil Nadu, February 2011.

Participated in Five Days TECS Week on “Computer Networks” at Tata Research Development and Design Centre, Pune, Maharashtra, India, January 3-7, 2011.

Participated in Two Days Workshop on “Network Simulator Tools”, Anna University, Tiruchirappalli, Tamil Nadu, India, 17 – 18 July, 2010.

Participated in Two Days workshop on “Industries-Institutions Interactions”, Computer Society of India, Trichy Chapter, Tiruchirappalli, Tamil Nadu, India, 6 – 7 January, 2005.

Participated in One Day Regional Seminar on “Networking and Data Mining”, Ponnaiyah Ramajayam College, Thanjavur, Tamil Nadu, India, 24 March, 2004.

## **CERTIFICATE OF COMPLETION FROM ELSEVIER PUBLISHING CAMPUS**

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Agile Software Development, Coursera June 2021.

Make a Career in Research, 26 August, 2017.

Funding Hacks for Researchers, 3 July 2017.

Creating a good research data management plan, 6 June 2017.

Data Citation: How can you as a researcher benefit from citing data, 19 May 2017.

The nuts & bolts of Peer Review: a discussion by Biomaterials Editors, 17 April 2017.

10 tips for writing a truly terrible journal article, 13 April 2017.

## **MEMBERSHIP**

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Life Member of Indian Society for Technical Education (ISTE)

Member of World Scientific and Engineering Academy and Society (WSEAS)

Life Member of International Association of Engineers (IAENG) Membership No: 154187

Life Member of Computer Society of India (CSI) Membership No: I1502838.

Life Member of Computer Science Teachers Association (CSTA) Membership No: 0246754  
Member of Society for Data Science

Life Member of Global IT Commune.

Member of CII (Confederation of Indian Industry).

## **EDITORIAL TEAM**

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International Journal of Information Technology, Research and Applications

International Journal of Sensors and Sensor Networks

Cambridge Scholars Publishing

Journal of Computer Hardware Engineering

## **REVIEWER OF INTERNATIONAL JOURNALS & CONFERENCES**

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Reviewer in the International Conference on Computational Sciences and Sustainable Technologies (ICCSST 2023) held on 8th & 9th May 2023, Dept. Computer Science, CHRIST (Deemed to be University) & Modern College of Business & Science, Muscat, Oman.

Reviewer in The Scientific Research Centre (SRC), The University of Technology & Applied Sciences (UTAS), Oman.

Reviewer of the 9th International Conference on Fuzzy Systems and Data Mining (FSDM 2023), China.

Reviewer of International Conference on Data Management, Analytics, and Innovation (ICDMAI).

Reviewer of International Journal of Research and Innovation in Social Science

Reviewer of IEEE Access

Reviewer of IEEE 18th India Council International Conference (INDICON)

Co-Convener, National Conference on Advances in Computing and Management, Jan 29-30,2016, Pune, Maharashtra, India.

Reviewer of the Springer Journal, Frontiers of Computer Science

Reviewer of the Springer Journal, International Journal of Fuzzy Systems

Reviewer of Thomson Reuters Indexed Journal, KSII Transactions on Internet and Information Systems

Reviewer of Journal of Computer Engineering & Information Technology

Reviewer of HKIE Transactions, Taylor & Francis Online

Reviewer of International Conference on Soft Computing and Machine Learning, China.

## **INVITED PRESENTATIONS**

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Speaker of the Webinar on "Image Classification using Pre-Trained Models in PyTorch" on 12 July 2021, Bishop Heber College, Tamil Nadu, India.

Speaker of the Seminar on "Optimization of Cluster Heads with Zone Based Energy Heterogeneity in Wireless Sensor Networks", on 22 April 2016, Jayaram College of Engineering & Technology, Trichy, Tamil Nadu, India.

Speaker of the Seminar on "Sharing of Research Experiences" on 12 July 2014, Padmashree Dr.

D. Y. Patil Institute of MCA, Pune, Maharashtra, India.

**RESEARCH PROJECT COMPETITION – AVISHKAR 2015**

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Won the Zonal Level Research Project Competition, “Machine Teaching Methodology in the Optimization of Teaching Learning Process”, at Board of Colleges & University Development (BCUD), Savitribai Phule Pune University on 7 Oct, 2015, Pune, Maharashtra, India.

Participated at University Level Research Project Competition at Board of Colleges & University Development (BCUD), Savitribai Phule Pune University on 11 Dec, 2015, Pune, Maharashtra, India.