



# Bharathiar University

State University | "A++" Grade by NAAC | 26<sup>th</sup> Rank in MoE-NIRF  
Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

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| <b>Dr S VIJAYARANI</b><br>Associate Professor<br>Department of Computer Science<br><br>Bharathiar University<br>Coimbatore, 641046<br>Tamil Nadu<br><b>E-mail:</b> vijayarani@buc.edu.in<br><b>Phone:</b> 9345282463<br><b>Office Number:</b> 04222428353                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                           |
| <b>Research Area</b> <ul style="list-style-type: none"><li>• Data Mining</li><li>• Big Data Analytics</li><li>• Data Streams</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Courses Teaching</b> <ul style="list-style-type: none"><li>• Advanced Operating Systems</li><li>• Data Mining Techniques and Tools</li><li>• Big Data Analytics</li><li>• E-Commerce</li><li>• Data Structures and Object-Oriented Concepts</li><li>• Design &amp; Analysis of Algorithms</li><li>• Computer Graphics</li><li>• Information Security</li><li>• Computer Organization &amp; Architecture</li><li>• Web Services</li></ul> |
| <b>Research Experience:</b> 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Teaching Experience:</b> 16                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Research Credentials</b> (as on January 2024 – Source: Google scholar)<br>H-index: 24                      Citations: 3285                      i10-index: 41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Publications</b><br>International Journals: 62                      National Journals: 4                      Books/Chapters: 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Selected Publications</b> <ol style="list-style-type: none"><li><b>1. Text Content Analysis using Semantic Similarity and Keyword Extraction for Automatic File Name Generation</b><br/>International Journal of Intelligent Enterprise, Inderscience (April 2022)<br/>S.Vijayarani, R.Janani, J.Ilamathi</li><li><b>2. Cockroach Swarm Optimization Algorithm for High Utility Association Rule Mining Algorithms</b><br/>IGI Global International Journal of Swarm Intelligence Research (July 2021)<br/>C.Sivamathi, S.Vijayarani</li><li><b>3. Firefly Optimization Algorithm based Web Scraping for Web Citation Extraction</b><br/>Wireless Personal Communications An International Journal (February 2021)<br/>E.Suganya, S.Vijayarani</li><li><b>4. Hybrid Harmony Search – Antlion Optimization Algorithm for Multi-level High Utility Association Rule Mining</b><br/>IGI Global International Journal of Swarm Intelligence Research (January 2021)<br/>C.Sivamathi, S.Vijayarani</li><li><b>5. Automatic Text Classification using Machine Learning and Optimization Algorithms,</b><br/>Soft Computing, A Fusion of Foundations, Methodologies and Applications Springer Publishers (August 2020)<br/>R Janani, S. Vijayarani</li><li><b>6. Association rule mining using fuzzy logic and whale optimization algorithm</b><br/>Soft Computing, A Fusion of Foundations, Methodologies and Applications, Springer Publishers (August 2020)<br/>S. Sharmila, S. Vijayarani</li></ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                             |



## **7. An Utility Based Approach for Business Intelligence to Discover Beneficial Itemsets With or Without Negative**

### **Profit in Retail Business Industry**

International Journal of Business Intelligence and Data Mining (April 2020)  
S.Vijayarani, C.Sivamathi

## **8. Content-based Web Search and Information Extraction from Heterogeneous Websites using Ontology**

International Journal of Scientific & Technology Research (March 2020)  
E.Suganya, S.Vijayarani

## **9. Efficient Blurring, and De-Blurring Techniques for Secure the Document Images**

International Journal of Scientific & Technology Research (March 2020)  
S.Vijayarnai, A.Sakila, Nivetha

## **10. Mathematical Symbol Extraction from Document Images - A Comprehensive Review**

International Journal of Scientific & Technology Research (March 2020)  
S.Vijayarani, A.Sakila

## **11. Web Page Noise Removal Using Firefly Optimization Algorithm**

International Journal of Scientific and Technology Research (January 2020)  
S.Vijayarani, E.Suganya

## **12. Comparative Analysis of Fuzzy Association Mining Algorithms**

International Journal of Scientific and Technology Research (November 2019)  
S.Vijayarani, S.Sharmila

## **13. Artificial bee colony algorithm for feature selection and improved support vector machine for text**

### **classification**

Information Discovery and Delivery (August 2019)  
S.Vijayarani, R.Janani

## **14. Business Intelligence for Evaluating the Intangible Benefits of On-Shelf High Utility Itemset from the Temporal**

### **Transaction Database**

International Journal of Engineering and Advanced Technology (August 2019)  
S.Vijayarani, V.Jeevika Tharini

## **15. Text document clustering using Spectral Clustering Particle Swarm Optimization**

Expert Systems With Applications (June 2019)  
R.Janani, S.Vijayarani

## **16. Association Rule hiding Using Grey Wolf Optimization Algorithm**

International Journal of Engineering and Advanced Technology (June 2019)  
S. Sharmila, S.Vijayarani

## **17. Multi-level Utility Mining: Retrieval of High Utility Itemsets in a Transaction Database**

Computers and Electrical Engineering (April 2019)  
C Sivamathi, S Vijayarani

## **18. Utility Association Rule Mining – A Comprehensive Study**

International Journal of Computer Sciences and Engineering (April 2019)  
C. Sivamathi, Dr. S. Vijayarani



## 19. Web Crawlers for Web Content Extraction

International Journal of Computer Sciences and Engineering (April 2019)  
E.Suganya, Dr. S. Vijayarani

## 20. A Survey on Facial Recognition

International Journal of Computer Sciences and Engineering (April 2019)  
Sakila A, Dr. S. Vijayarani

## 21. Text Classification: A Comparative Analysis of Word Embedding Algorithms

International Journal of Computer Sciences and Engineering (April 2019)  
R.Janani, Dr. S. Vijayarani

## 22. Information Retrieval from Web Documents using Pattern Matching Algorithms

International Journal for Research in Engineering Application & Management (March 2019)  
R.Janani, Dr. S. Vijayarani

## 23. Natural Language Processing: An Analysis of Open Source Named Entity Recognition Tools

Journal of Emerging Technologies and Innovative Research (February 2019)  
R.Janani, Dr. S. Vijayarani

## 24. Web Log Analysis Using Association Rule Mining Algorithms

Journal of Emerging Technologies and Innovative Research (February 2019)  
E.Suganya, Dr. S. Vijayarani, V.Eswari

## 25. Association Rule Hiding Approaches–A Survey

Journal of Emerging Technologies and Innovative Research (February 2019)  
S.Sharmila, Dr. S. Vijayarani

## 26. Frequent Utility Sequence Pattern Mining using Ptree+

Journal of Emerging Technologies and Innovative Research (February 2019)  
C.Sivamathi, Dr. S. Vijayarani

## 27. Comparative Analysis of Frequent Closed Item Set Mining

International Journal for Research in Engineering Application & Management, (August 2018)  
S.Sharmila, Dr. S. Vijayarani

## 28. Association Rule Hiding in Privacy Preserving Data Mining

International Journal of Information Security and Privacy (July 2018)  
S.Vijayarani, A. Tamilarasi

## 29. Process Mining - A Comprehensive Review

International Journal of Computer Sciences and Engineering (July 2018)  
Dr. S. Vijayarani, A.Sakila, Ramya

## 30. RHUIET: Discovery of Rare High Utility Itemsets using Enumeration Tree

International Journal for Research in Engineering Application & Management (June 2018)  
Dr. S. Vijayarani, C.Sivamathi

## 31. A Survey on Document Image Analysis

International Journal for Research in Applied Science & Engineering Technology (April 2018)  
Dr. S. Vijayarani, A.Sakila, M.Deepa



## **32. Web Log Files in Web Usage Mining Research – A Review**

International Journal of Engineering Research in Computer Science and Engineering (February 2018)  
Dr. S. Vijayarani, E.Suganya, M.Prakathambal

## **33. Text Document Clustering using Artificial Bee Colony with Bisecting K-Means Algorithm**

International Journal of Advanced Research in Computer Science (February 2018)  
Dr. S. Vijayarani, R.Janani

## **34. Content-Based Text Information Search and Retrieval in Document Images for Digital Library**

Journal of Digital Information Management (January 2018)  
S.Vijayarani, A.Sakila

## **35. A Hybrid Approach for Improving Text Document Clustering**

International Journal of Engineering Research in Computer Science and Engineering (December 2017)  
Dr. S. Vijayarani, R.Janani

## **36. Recent Trends in Utility Mining**

International Journal of Research in Information Technology (November 2017)  
Dr. S. Vijayarani, C.Sivamathi, V.Jeevika Tharani

## **37. Web Page Noise Removal – A Survey**

International Journal of Scientific Research in Science and Technology (October 2017)  
Dr. S. Vijayarani K.Geethanjali

## **38. A Hybrid Image Binarization Technique for Enhancement of Degraded Document Images,**

International Journal of Engineering Research in Computer Science, and Engineering (October 2017)  
Dr. S. Vijayarani, M.Geetha

## **39. Optical Character Recognition - A Review**

International Journal of Scientific Research in Computer Science, Engineering and Information Technology (September 2017)  
Dr. S. Vijayarani, M.Geetha

## **40. Association Rule Mining Using Enhanced FP-Growth and H-Mine Algorithms**

International Journal of Electrical, Electronics & Computer Science Engineering (August 2017)  
Dr. S. Vijayarani, S.Sharmila

## **41. Skew Detection and Correction in the Document Image**

International Journal of Innovative Research in Science, Engineering, and Technology (August 2017)  
Dr. S. Vijayarani, A.Sakila

## **42. Web Page Classification in Web Mining Research – A Survey**

International Journal of Innovative Research in Science, Engineering, and Technology (August 2017)  
Dr. S. Vijayarani, E.Suganya

## **43. An Efficient String Matching Technique for Desktop Search to Detect Duplicate Files**

International Journal of Information Technology and Computer Science (July 2017)  
Dr. S. Vijayarani, Muthulakshmi

## **44. Image Enhancement Using Morphological Operations**

International Journal of Scientific Research in Science, Engineering, and Technology (April 2017)  
Dr. S. Vijayarani, A.Sakila



#### 45. An Enhanced Algorithm for Retrieving High Utility- Frequent Item Sets with Negative Utility Values

Indian Journal of Science and Technology (April 2017)  
C. Sivamathi, Dr. S. Vijayarani

#### 46. A Hybrid Clustering Algorithm for Outlier Detection in Data Streams, International Journal of Grid and Distributed Computing

International Journal of Grid and Distributed Computing, 9, 385-396 (November 2016)  
S. Vijayarani, P. Jothi

#### 47. An Efficient Text Pattern Matching Algorithm For Retrieving Information From Desktop

Indian Journal of Science and Technology (November 2016)  
S. Vijayarani, R. Janani

#### 48. Text Extraction from Tamil and Hindi Document Images using Open Source Optical Character Recognition Tools

International Journal for Science and Advance Research In Technology (November 2016)  
Dr. S. Vijayarani, A. Sakila

#### 49. Particle Swarm Optimization Algorithm for Facial Image Expression Classification

International Journal of Signal Processing (September 2016)  
S. Vijayarani, S. Priyadharsini

#### 50. An Efficient Algorithm for Facial Image Classification, International Journal of Signal Processing

International Journal of Signal Processing, Image Processing, and Pattern Recognition (December 2015)  
Dr. S. Vijayarani M. Vinupriya

#### 51. An Efficient Clustering Algorithm for Predicting Diseases from Hemogram Blood Test Samples

Indian Journal of Science and Technology (August 2015)  
S. Vijayarani, S. Sudha

#### 52. Research in Cloud Computing – An Overview

International Journal of Distributed and Cloud Computing (June 2015)  
Dr. S. Vijayarani, S. Sharmila

#### 53. Intrusion Detection System – A Study

International Journal of Security, Privacy and Trust Management (February 2015)  
Dr. S. Vijayarani, S. Maria Sylvia

#### 54. A Study of Heart Disease Prediction in Data Mining

International Journal of Computer Science and Information Technology & Security (October 2012)  
Dr. S. Vijayarani, S. Sudha

#### 55. A Survey on Frequent Pattern Mining Over Data Streams

International Journal of Computer Science and Information Technology & Security (October 2012)  
Dr. S. Vijayarani, P. Sathya

#### 56. Sensitive Outlier Protection in Privacy Preserving Data Mining

International Journal of Computer Applications (November 2011)  
Dr. S. Vijayarani, S. Nithya



**57. An Efficient Algorithm for Classification Rule Hiding,**

International Journal of Computer Applications (November 2011)  
Dr. S. Vijayarani, M.Divya

**58. Association Rule Hiding using Artificial Bee Colony Algorithm**

International Journal of Computer Applications (November 2011)  
Dr. S. Vijayarani, M.Sathya Prabha

**59. Protecting Sensitive Association Rules in Privacy Preserving Data Mining using Genetic Algorithms**

International Journal of Computer Applications (November 2011)  
S.Narmadha, Dr. S. Vijayarani

**60. An Efficient Clustering Algorithm for Outlier Detection**

International Journal of Computer Applications (October 2011)  
Dr. S. Vijayarani, S.Nithya

**61. Tabu Search based Association Rule Hiding**

International Journal of Computer Applications (April 2011)  
Dr. S. Vijayarani, Dr. A.Tamilarasi, R.Seethalakshmi

**62. Bit Transformation Perturbative Masking Technique for Protecting Sensitive Information in Privacy Preserving Data Mining**

International Journal of Database Management Systems (November 2010)  
Dr. S. Vijayarani, Dr.A.Tamilarasi

**1. Data Mining Algorithms for Disaster Data Analysis**

LAPLAMBERT Academic Publishing (March 2015)  
Dr S.Vijayarani, S.Dhayanand

**1. Electronic Health Records – An Overview**

CSI Communications (December 2013)  
S.Vijayarani

**2. Fashion Designing Softwares**

Textile Review (September 2011)  
S.Vijayarani

**3. A Study on Computer Integrated Manufacturing for Textiles**

Textile Review (March 2011)  
S.Vijayarani

**4. E-Business in Textile Industry**

Textile Review (April 2009)  
S.Vijayarani