Faculty Profile of Dr. R. Porkodi



Dr. R. Porkodi Professor Department of Computer Science

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Research Area

- Geo-Spatial Mining
- Natural Language Processing
- Bioinformatics

Education & Career

Education

Ph. D.

Subject : Computer Science

Institution: SNR College, Coimbatore

Affiliated University: Bharathiar University

Year of Award: 2013

M.C.A.

Subject: Computer Applications

Institution: Madurai Kamaraj University

Affiliated University: Madurai Kamaraj University

Year of Award: 1998

Career

At Bharathiar University (Reverse Order)

Associate Professor: 2016 to till

Assistant Professor: April 2005 to 2016

Past Experience

Lecturer: June 2000 to April 2005 at Arul Anandar College, Karumathur,

Madurai

Lecturer: June 1999 to May 2000 at VPMM College of Arts and Science,

Srivilliputhur

Awards

Membership

Visits

Collaborators

Others

Projects

Funded Projects (National Level)

- Ongoing
- Completed-01
- 1. A Methodology for Automatic Feature Extraction from Medline Abstracts using Hybrid Approach,

Principal Investigator

University Grants Commission, New Delhi – 2010-2012 Line-5 – Rs. 1.9 Lakhs

Consultancy Projects

- Ongoing
- Completed

Ongoing Consultancy Project Informations
Completed Consultancy Project Informations

Research Guidance

• <u>Ph.D.</u> • M.Phil. • <u>M.Sc.</u> Ongoing Title Name Completed Title Name Ongoing Sample Data. Completed Sample Data. Ongoing Sample Data. Completed Sample Data. Ongoing

• Post Doc.

Sample Data.

Completed

Sample Data.

Research Publication

- International
- National
- Patents
- Conferences
- Books / Chapters
- Database
- 1. A Study And Analysis Of Biclustering Algorithms To Identify PPI Network And Significant Enrichments Of Genes In Biclusters Based On Gene Ontology And Kegg Pathway Database,
- N. Kavitha Sri, R. Porkodi, International Journal of Scientific & Technology Research, 9, 1, 2525-2530, ISSN 2277-8616, 2020.
- 2. Prediction and Analysis of Extracting Relations using Spacy Model", G. Suganya, R. Porkodi,

International Journal of Recent Technology and Engineering, 8, 6, 3281-3287, ISSN 2277-3878, 2020.

3. Parallel deep convolutional neural network for content based medical image retrieval", Journal of Ambient Intelligence and Humanized Computing, P. Haripriya, R. Porkodi,

Journal of Ambient Intelligence and Humanized Computing, 1-15, Print ISSN 1868-5137, 2020.

4. A new fusion of mutual information and Otsu multilevel thresholding technique for hyperspectral band selection, K. Nandhini, R. Porkodi,

Egyptian Informatics Journal, ISSN 1110-8665, 2020.

- 5. Analysis of Biomedical Entities extraction and classification using TensorFlow based on Neural Network,
 - G. Suganya, R. Porkodi,

Solid State Technology, 63, 6, 11387-11402, ISSN 0038-111X, 2020.

6. Review for Smart Water Quality Monitoring System by using IOT, - A Arulrpriya, R. Porkodi,

Proceedings of the 3rd National Conference on Advanced Computing -NCAC-2020, 370-374, ISBN 978-93-89105-32-2, 2020.

7. Survey Paper on Implementation of Smart Garbage Monitoring System Using IoT, – R Harikrishnan, R. Porkodi,

Proceedings of the 3rd National Conference on Advanced Computing -NCAC-2020, 414-419, ISBN 978-93-89105-32-2, 2020.

8. Pest Monitoring and Detection Management Using IoT, – S Mounisha, R. Porkodi,

Proceedings of the 3rd National Conference on Advanced Computing -NCAC-2020, 339-343, ISBN 978-93-89105-32-2, 2020.

9. A Study on Weather Prediction Using Tree Based Classifiers, - V Priyanka, R. Porkodi,

Proceedings of the 3rd National Conference on Advanced Computing -NCAC-2020, 325-329, ISBN 978-93-89105-32-2, 2020.

10. A Review on IoT Based Weather Monitoring System in Agriculture, - R Sneha, R. Porkodi,

Proceedings of the 3rd National Conference on Advanced Computing -NCAC-2020, 344-348, ISBN 978-93-89105-32-2, 2020.

- 11. Hyperspectral Nonlinear Unmixing: Endmember extracting Using Iterative Simplex CNN Method,
- K. Nandhini, R Porkodi, International Journal of Scientific & Technology Research, 8, 10, 78-83, 2019.
- 12. Deep Learning Pre-Trained Architecture Of Alex Net And Googlenet For DICOM Image Classification, P. Haripriya, R Porkodi,

International Journal of Scientific & Technology Research, 8, 11, 3130-3136, 2019.

- 13. An Insight Framework for Content based Medical Image Retrieval using Deep Convolutional Neural Network,
- P. Haripriya, R Porkodi, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 8958, 9, 1S, 172-179, 2019.
- 14. The Novel Gravitational Mass Weighted PCA Technique for Feature Extraction in Hyperspectral Data Classification, K. Nandhini, R Porkodi,

4th International Conference on Recent Trends in Engineering and Technology (St2019), St. Joseph's Institute of Technology, Chennai from 3-4th May 2019.

15. An Enhanced Framework for Content Based Medical Image Retrieval using Deep Neural Network, P. Haripriya, R Porkodi,

4th International Conference on Recent Trends in Engineering and Technology (St2019), St. Joseph's Institute of Technology, Chennai from 3-4th May 2019.

- 16. Extraction of Co-Expressed Degs From Parkinson Disease Microarray Dataset Using Partition Based Clustering Techniques,
 - K. Punitha, R. Porkodi, IEEE Explore, October 2019.
- 17. Identifying Significant Gene Interaction Networks Using Machine Learning and Statistical Techniques,
 - V. Saranya, R. Porkodi,

IEEE Explore, October 2019.

- 18. Study And Analysis Of Gene-Protein Interactions From Pubmed Articles Using Conditional Random Field- Named Entity Recognition Technique,
 - G. Suganya, R. Porkodi,

International Journal of Scientific & Technology Research, 8, 9, 2237-2244, 2019.

19. An Extensive Survey On Biclustering Approaches And Algorithms For Gene Expression Data, N. Kavithasri, R. Porkodi,

International Journal of Scientific & Technology Research, 8, 09, 2228-2236, 2019.

- 20. The Novel Gravitational Mass Weighted PCA Technique for Feature Extraction in Hyperspectral Data Classification,
 - K. Nandhini, R Porkodi,

International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, 8, 5S3, 250- 255, 2019.

- 21. An Enhanced Framework for Content Based Medical Image Retrieval using Deep Neural Network,
 - P. Haripriya, R Porkodi,

International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, 8, 5S3, 239- 244, 2019.

- 22. An Enhanced Framework for Content Based Medical Image Retrieval using Deep Neural Network,
 - P. Haripriya, R Porkodi,

International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, 8, 5S3, 239- 244, 2019.

23. Design of a Rule Based Bio Medical Entity Extractor, – G. Suganya, R. Porkodi,

International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, 8, 5S3, 245- 249, 2019.

- 24. Extraction of Co-Expressed Degs From Parkinson Disease Microarray Dataset Using Partition Based Clustering Techniques,
 - K. Punitha, Dr. R. Porkodi,

2019 Third IEEE International conference on Electrical, Computer and Communication Technologies (2019 IEEE ICECCT)20-22 Feb 2019, SVS College of Engineering, 2019.

- 25. Identifying Significant Gene Interaction Networks Using Machine Learning and Statistical Techniques,
 - V. Saranya, R. Porkodi,

2019 Third IEEE International conference on Electrical, Computer and Communication Technologies (2019 IEEE ICECCT)20-22 Feb 2019, SVS College of Engineering, 2019.

- 26. Analysis of Feature Extraction Techniques in Hyperspectral data,
 - K. Nandhini, R. Porkodi,

Proceedings of the National Conference on Advanced Computing -NCAC-2019- 24-25Jan 2019.

27. A Review on Content Based Image Retrieval for Medical Images, – P.Haripriya, R. Porkodi,

Proceedings of the National Conference on Advanced Computing -NCAC-2019-24-25Jan 2019.

- 28. Identifying BioMedical Entities associations fromPubMed and Other related BioMedical Literatures: A Review,
 - G. Suganya, R. Porkodi,

Proceedings of the National Conference on Advanced Computing -NCAC-2019- 24-25Jan 2019.

- 29. A Review on Exploring the Reltionships among the disease and Metabolites,
- S. SpelmenVimalraj, R. Porkodi,

Proceedings of the National Conference on Advanced Computing -NCAC-2019- 24-25Jan 2019.

30. A Review on Classification Techniques in Data Mining, - V. Saranya, R. Porkodi.

Proceedings of the National Conference on Advanced Computing -NCAC-2019-24-25 an 2019.

31. Building of Co-expression network of genes from Biomedical Dataset: A Review, - K. Punitha, R. Porkodi,

Proceedings of the National Conference on Advanced Computing -NCAC-2019- 24-25Jan 2019.

32. A Review on Clustering Techniques in Data Mining on five important application Domains, - N. Kavithasri, R. Porkodi,

Proceedings of the National Conference on Advanced Computing -NCAC-2019-24-25Jan 2019.

33. Ontology Based Information Extraction - A Review, - G. Suganya, R. Porkodi,

Proceeding of 2018 IEEE International Conference on Current Trends toward Converging Technologies, SVS College of Engineering, 1-3rd March 2018.

- 34. A Review on Handling Imbalanced Data, S. SpelmenVimalraj, R. Porkodi, Proceeding of 2018 IEEE International Conference on Current Trends toward Converging Technologies, SVS College of Engineering, 1-3rd March 2018.
- 35. Classification of Human Cancer Diseases Gene Expression Profiles using Genetic Algorithm by Integrating Protein Protein Interactions Along with Gene Expression Profiles,

A. Daisy, R. Porkodi, Proceeding of 2018 IEEE International Conference on Current Trends toward Converging Technologies, SVS College of Engineering, 1-3rd March 2018.

- 36. Extraction of Association Rules from Tobacco Smoke Effect on the Placenta Microarray Dataset using Gene Ontology Based Optmized Association Rule Mining,
 - P.Dhanalakshmi, Dr. R. Porkodi,

Proceeding of 2018 IEEE International Conference on Current Trends toward Converging Technologies, SVS College of Engineering, 1-3rd March 2018.

- 37. Analysis of Spectral Unmixing to Extract the Pure Pixels using Endmembers Determination Algorithms,
 - K. Nandhini, R. Porkodi,

International Journal of Computational Intelligence and Informatics, 8, 4, 2018.

- 38. A Study and Analysis of Content based medical Image Retrieval for DICOM images using Deep Convolutional Neural Network,
- P. Haripriya, R. Porkodi, International Journal of Computational Intelligence and Informatics, 8, 3, 2018.
- 39. Design and Development of Automated Ontology from PubMed abstracts using Rule based approach,
 - G. Suganya, R. Porkodi,

International Journal of Computational Intelligence and Informatics, 8, 3, 2018.

- 40. A Study on Partition Clustering Algorithms Based on Internal Validation and Stability, K. Punitha, R. Porkodi,
 - IPASJ International Journal of Information Technology (IIJIT), 6, 8, 2018.
- 41. A Study and Analysis of Decision Tree Based Classification algorithms using R, V.Saranya, R. Porkodi,
 - International Journal of Research in Advent Technology, 6, 7, 2018.

42. A Study and Analysis of Association Rule Mining Algorithms In Data Mining,
– N Yuvamathi, R Porkodi,

IJSRST, 4, 2, 2018.

- 43. Survey of Different Data Clustering Algorithms, N Kavithasri, R Porkodi, IJSRST, 4, 2, 2018.
- 44. Comparison of Clustering Algorithm, R Indhu, R Porkodi, International Journal of Scientific Research in Computer Science, Engineering and Information Technology, 3, 1, 2018.
- 45. Classification Algorithms in Data Mining: A Survey, C Parimala, R Porkodi, International Journal of Scientific Research in Computer Science, Engineering and Information Technology, 3, 1, 2018.
- 46. Comparative Study and Analysis of Classification Algorithms in Data Mining using Diabetic Dataset,

R.S.Suryakirani, R. Porkodi, - IJSRST, 4, 2, 2018.

- 47. Use of Data Mining Techniques to Improve the Effectiveness of Sales and Marketing, K. Birutha, R. Porkodi, IJRASET, 6, 1, 2018.
- 48. Comparative Study and Analysis of Wholesale Customer's Dataset Using Association Rule Mining,

M. Vijay Kumar, R. Porkodi, - IJRASET, 6, 1, 2018.

49. A Survey on Cancer Classification using Data Mining Techniques, R.Porkodi, A.Daisy,

International Journal of Emerging Trends & Technology in Computer Science (IJETTCS), 6, 5, 2017.

50. A Survey on Different Association Rule Mining Algorithms in Data Mining, R. Porkodi, P.Dhanalakshmi,

International Publisher for Advanced Scientific Journals (IPASJ), 5, 10, 2017.

51. A Survey on Text Mining Tools and Techniques, G.Suganya, R. Porkodi,

IPASJ International Journal of Computer Science (IIJCS), 5, 7, 113-124, 2017.

52. A Study and Analysis of Clustering Algorithms on Hiv-1 Infection Microarray Dataset for Finding Cluster Wise Common Genes,

M.S.Uma, Dr. R. Porkodi,

International Journal of Advanced Research in Computer Science 8 (5), 1632-1640, 2017.

53. Identifying Differentially Expressed Genes Involved in Signal Transduction Pathways in Breast Cancer Dataset Using K-Means Clustering and Kegg Pathway Analysis,

B Yaagasree, R Porkodi,

International Journal Of Scientific Research And Education 5 (04), 2017.

54. Spatial Classification and Prediction in Hyper spectral Remote Sensing Data using Random Forest by Tuning Parameters,

R.Porkodi, K Nandhini,

International Journal of Advanced Research in Computer Science 8 (3), 259-266, 2017.

55. An Efficient Storage and Retrieval of DICOM Objects using Big Data Technologies, P Haripriya, R Porkodi,

International Journal of Advanced Research in Computer Science 8 (3), 271-275, 2017.

- 56. A Study on Disease Subtypes to Identify Top Ranked Genes Discrimination and Building Gene Associated Networks of Obesity Microarray Dataset using Machine Learning and Statistical Methods,
 - R. Porkodi, S.Muthulakshmi,

IPASJ international journal of computer science(IIJCS) 5 (1), 11-19, 2017

57. Hierarchical Clustering of Differentially Expressed Genes using Up and Down Gene Regulation and Gene Enrichment Analysis in Alzheimer Disease Dataset,

R.Porkodi, S.B.Ishwarya,

IPASJ International Journal of Computer Science (IIJCS) 5 (1), 1-10, 2017

58. Exploration of Geo-statistical and Clustering Models using R: Case Study, K. Nandhini, R. Porkodi,

National Conference on Advanced Computing, 2016.

59. A Survey on NoSql databases for handling DICOM data, P. Haripriya, R. Porkodi,

National Conference on Advanced Computing, 2016.

60. Performance analysis of classification algorithms using disease dataset: a comparative study, G.Suganya, R. Porkodi,

National Conference on Advanced Computing, 2016.

61. A Study on Classification Algorithms using R for Kidney Catheter Dataset, S.Muthulakshmi, R. Porkodi,

National Conference on Advanced Computing, 2016.

62. Analysis of Clustering Algorithm for Yeast Cell Dataset, M.S. Uma, R. Porkodi,

National Conference on Advanced Computing, 2016.

63. Comparing Classification Algorithms by Pima Indians Diabetes Dataset using Data Mining, B. Yaagasree R. Porkodi,

National Conference on Advanced Computing, 2016.

64. Classifying Bladder and Prostate Cancer Dataset in R using Data mining Classification Algorithm: A Study, R.Porkodi, S.B.Ishwarya,

National Conference on Advanced Computing, 2016.

65. Survey on Biomarkers Classification in Data Mining, R. Porkodi, S. B. Ishwarya,

International Journal of Advanced Research in Computer Science and Software Engineering, 6, 3, 330-38, 2016.

66. A Survey Paper on Data mining Techniques and Challenges in Distributed DICOM, R. Porkodi, P. Haripriya,

International Journal of Advanced Research in Computer and Communication Engineering , 5, 3, 741-747, 2016.

67. A Survey on Clustering Algorithm for Microarray Gene Expression Data, R. Porkodi M. S. Uma,

International Journal on Recent and Innovation Trends in Computing and Communication(IJRITCC), 4, 3, 226-230, 2016.

68. Survey on Disease Prediction Using Regression in Data Mining, B. Yaagasree R. Porkodi.

International Journal of Advanced Research in Computer Science and Software Engineerin(IJARCSSE), 6, 3, 291-297, 2016.

69. Clustering of Microarray Data to Identify Enriched Go Terms of Genes in Severe Asthma Dataset using Gene Enrichment Analysis,

Dr.R.Porkodi, T.Deepika,

Indian Journal of Science and Technology(IJST), 9, 8, 1-11, 2016.

70. A Survey on Classification Algorithms in Data Mining of Bioinformatics, R. Porkodi, S. Muthulakshmi,

IJSRD - International Journal for Scientific Research & Development , 4, 3, 612-617, 2016.

71. Study and Analysis of Gene Expression Profile Patterns of Myocardial Infarction Dataset Using Biclustering Approach,

R.Tamilarasi, Dr. R.Porkodi,

IJSRD - International Journal for Scientific Research & Development , 3, 6, 50-63, 2015.

72. Hierarchical Clustering of Lung Cancer Microarray Dataset using Random Forest Algorithm based on GO Annotation,

N.Poomani, Dr.R.Porkodi,

International Journal of Engineering Technology and Computer Research (IJETCR), 3, 6, 41-49, 2015.

73. Function and Pathway Analysis of Differentially Expressed Genes in Alzheimer's Disease Dataset Using Linear Regression Model,

R.Savitha, Dr.R.Porkodi, International Journal of Computer Science and Telecommunications (IJCST) , 6, 4, 2015.

74. An Efficient Framework for Extracting Significant Associations among GO_Terms in Breast Cancer Dataset Using Association Rule Mining by Apriori Algorithm,

P.Prithiviraj, Dr.R.Porkodi,

International Journal of Computer Science and Technology (IJCST), 6, 4, 215-221, 2015.

75. A Comparative Study on Classification Algorithms in Data Mining Using Microarray Dataset of Colon Cancer,

R. Porkodi* G. Suganya,

International Journal of Advanced Research in Computer Science and Software Engineering (IARCSSE), 5, 1768-1777, 2015.

76. A Survey on Microarray Gene Expression Data sets in Clustering and Visualization Plots, – T. Deepika, and R. Porkodi,

International Journal of Emerging Research in Management & Technology , 4, 3, 56-66, 2015.

77. A Comparison of Data Mining Classification Algorithms Using Breast Cancer Microarray Dataset: A study,

N.Poomani and Dr. R.Porkodi,

International Journal for Scientific Research and Development, 2, 12, 543-5472015.

78. A Study and Analysis of Disease Prediction Techniques in Data Mining for Healthcare, – R Tamilarasi, R Porkodi,

International Journal of Emerging Research in Management & Technology, 3, 76-82, 2015.

79. An Overview of Text Mining Techniques and Methodologies Used in Bioinformatics Domain,

R Savitha, R Porkodi,

International Journal of Emerging Research in Management & Technology, 4, 3, 67-75, 2015.

80. comparative analysis of association rule mining algorithms in data mining: a study, - P Prithiviraj, R Porkodi,

American Journal of Science and Engineering Survey, 3, 1, 98-119, 2015.

- 81. The internet of Things (IoT) application and communication Enabling Technology Standards: An Overview,
 - R. Porkodi ,V. Bhuvaneswari, Line-3 IEEE Explore, 2014.
- 82. Comparison of Filter Based Feature Selection Algorithms: An Overview, R Porkodi,

International Journal of Innovative Research in Technology & Science(IJIRTS), 2, 2, 108-113, 2014.

83. A Study on Performance Analysis of Data Mining Classification Algorithms over Lung Cancer Dataset,

R Porkodi,

International Journal of Research in Information Technology, 2, 3, 49-58, 2014. - DOI:

- 84. Design and Development of Methodology for Extracting Association Rules Among Entities from Medline,
 - B.L. Shivakumar, R. Porkodi,

2nd National Conference on Advancements in the Era of Multi Disciplinary Systems (AEMDS- 2013), Elsevier Publications, 749-757, 2013.

- 85. Design and Development of Hybrid Approach for Constructing Gene/Protein Names Dictionary,
 - B.L. Shivakumar, R. Porkodi,

International Journal of Advanced Research in Computer Science (IJARCS), 3, 7, 6676-66681, 2012

86. Rule based approach for constructing Gene/Protein names Dictionary from Medline abstract, - B.L. Shivakumar, R. Porkodi,

International Journal of Advances in Computing and Information Technology (IJACIT), 1, 3, 457-468, 2012.

87. Associations among entities related Alzheimer Disease using Ontology based approach, – B.L. Shivakumar, R.Porkodi,

IOSR Journal of Engineering (IOSRJEN), 2, 8, 21-32, 2012.

- 88. Design and Development of Integrated Biomedical Ontology for Information Extraction from Medline Abstracts,
 - B.L. Shivakumar, R. Porkodi,

International Journal of Engineering Research and Development (IJERD), 1, 11, 1-10, 2012.

- 89. Finding relationships among gene ontology terms in biological documents using association rule mining and go annotations,
 - B.L. Shivakumar, R. Porkodi,

International Journal of Computer Science, Information Technology, & Security (IJCSITS), 2, 3, 542-550, 2012.

- 90. An Improved Association Rule Mining Technique for XML Data using XQUERY and Apriori Algorithm,
 - R. Porkodi, V. Bhuvaneswari, R. Rajesh,

IEEE International Advance Computing Conference, IEEE Delhi section, IEEE Computer Society Chapter and Thapar University, Patiala, India, ISBN: 978-981-08-2465-5, 2009.

91. Feature Extraction for Protein Sequences using XQuery for Content Clustering, - V. Bhuvaneswari, R. Porkodi,

IEEE International Advance Computing Conference, Thapar University, Patiala, India, 2009.

- 92. Design and Development of E-Dictionary for Tamil Verb, R. Porkodi, National Seminar on E-Resources for Tamil, Department of Linguistics, Bharathiar University, Coimbatore, 2008.
- 93. A Study and Analysis of tools & techniques for POS Tagger and Chunker, R Porkodi, R Rajesh,

International conference Soft Computing and Intelligent Systems [ICSCIS 2007], Jabalpur Engineering College, Jabalpur, 2007.

94. A Survey on Text Classification and Language analysis Tools, - R Porkodi, R Raiesh,

International conference Advanced Computing and Communication [ICACC 2007], IEEE sponsored, Sethu Institute of Technology, Madurai, 2007.

- 95. Syntax Analysis of English Sentences using NLTK, R. Porkodi, R Rajesh, National Conference on Globalization & Current Trend'sin Linguistics, Bharathiar University, 2007.
- 96. Natural Language Processing using NLTK components- An Overview, R Porkodi, R Rajesh,

National conference on High Performance Computing, Government College of Engineering, Tirunelveli, 2006.

National Publications - Reverse Chronological Order

Patent Info

Conference Info

- 1. Research and Trends in Data Mining and Image processing: Technologies and Applications, R. Porkodi, S. Sarala, M. Sundararajan,
- Bloomsbury publishing India PVT. Ltd., New Delhi, 2014, ISBN: 978-93-84052-11-9,
- 2. Research Advances in cloud Computing and Computer Networks, R. Porkodi, S. Sarala, M. Sundararajan,
- Sri Sakthi Promotional Lithoprocess, Coimbatore, 2014, ISBN: 976-81-92330-60-0,

Database Related Info

Alumini Reflections: