

# Dr. R. RATHIPRIYA

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## EDUCATIONAL QUALIFICATION

Degree	Specialization	Year
M.Sc	Computer Science	2003
M.Phil	Computer Science	2004
MCA	Computer Application	2008
Ph.D.	Web Mining	2013
NET JRF	Computer Science	2005

## TEACHING EXPERIENCE – 13 Years

- Lecturer • Trinity College for Women, Namakkal • 2004 - 2006
- Lecturer • Selvamm Arts and Science College, Namakkal • 2007 -2008
- Assistant Professor • Periyar University, Salem • 2008 - Till Date

## HONORARY POSITIONS

- Associate Editor in International Journal on Computational Intelligence and Informatics
- Member in International Association of Engineers (IAENG)
- Member in IEEE
- Member of Board of Studies, University Nomine Member for B. Sc. (CS) & B. Sc. (IT), VICAS, Tiruchengodu.

- Member of Board of Studies, External Expert Member for UG Department of Computer Application, Sree Saraswathi Thiyagaraj College, Pollachi

## RESEARCH EXPERIENCE – 10 Years

Research Scholars	Pursuing	Completed
M.Phil	5	26
Ph.D.	9	-

## RESEARCH CONTRIBUTIONS

### Research Papers Indexing

- Scopus  
<https://www.scopus.com/authid/detail.uri?authorId=55091157400>
- Google Scholar  
<https://scholar.google.co.in/citations?user=F0kSONwAAAAJ&hl=en>
- DBLP  
<http://dblp.uni-trier.de/pers/hd/r/Rathipriya:R=>

### National Conferences

- R. Rathipriya, K. Thangavel, Detection of Bicluster from Web log Data using Self Multiplication of Matrix, Proceedings of National Conference on Emerging Computing Paradigms, Feb, 2011
- S. Poornima, R. Rathipriya, A Survey on Biclustering Algorithms and Its Application in Collaborative Filtering, Proceedings of National Conference on computer Techniques and Systems, pp. 71-76, April 2011.
- R. Balamurugan, R. Rathipriya, Biclustering Approach Using Ant Colony Optimization, Proceedings of National Conference on Envisioning Innovation in Technologies (EITECH-2012), pp: 149-153, August 2012.

- R Gowri, R Rathipriya, Clustering the Protein Interaction Networks using Computational Intelligence Techniques: A Survey, Machine Learning: Challenges and Opportunities ahead, 2014
- R Greata, R Rathipriya, Power Aware Algorithm for MANET using Soft Computing Techniques: A Survey, Journal of science and Applications, Vol. 6, No. 1, pp- 101-106, Proceedings of National conference on Mining Internetworking and Data Security, March, 2014
- C Vinothkumar, R Rathipriya, A Survey on LSB based Steganography using Soft Computing Techniques, Journal of science and Applications, Vol. 6, No. 1, pp- 117-127, Proceedings of National conference on Mining Internetworking and Data Security, March, 2014
- K Jayanthi, R Rathipriya, Web Recommendation using K-means based Biclustering Approach and Optimization Algorithms, Journal of science and Applications, Vol. 6, No. 1, pp- 139-144, Proceedings of National conference on Mining Internetworking and Data Security, March, 2014

### International Conferences

- R. Rathipriya, K. Thangavel, Extraction of Maximum Similarity Bicluster from Web Log Data for Recommender Systems, Proceedings of International Conference on Recent Advancements in Electrical Sciences(ICRAES'10), pp:329-338, 2010
- Bagyamani J, Thangavel K and Rathipriya R, Extraction of Optimal Biclusters from Gene Expression Data, International Conference on Information and Communication Technologies, Vol 101, pp 380- 383, 2010
- R. Rathipriya, K. Thangavel, J. Bagyamani, Query Driven Biclustering of Binary Data and its Application in Web Usage Data, Proceedings of International Conference on Emerging Trends in Computing (ICETC-2011), pp:122-129, March 2011

- P. S. Raja, R. Rathipriya, Biclustering of Web Usage Data with Evolutionary Algorithm, Proceedings of Second Annual World Conference on International Business and Computer Applications (ICIBCA-2011), July 2011
- R. Hemalatha, R.Rathipriya, Hybrid Bees Colony Optimization Based Biclustering Algorithm, Proceeding of the International Conference On Computational Intelligence And Communication (ICCIC-2012), pp: 154-160, 2012
- K Thangavel, J Bagyamani, R Rathipriya, Novel hybrid PSO-SA model for biclustering of expression data, International Conference on Communication Technology and System Design, Procedia Engineering, Vol.30, pp:1048-1055, 2012, Elsevier
- V DiviyaPrabha, R Rathipriya, Biclustering of web usage data using gravitational search algorithm, Pattern Recognition, Informatics and Mobile Engineering (PRIME), 2013 International Conference, pp: 500-505, 2013, IEEE
- V DiviyaPrabha, R Rathipriya, A Study on Swarm Intelligence Techniques in Recommender System, IJCA Proceedings on International Conference on Research Trends in Computer Technologies, No: 4, pp: 32-34, 2013, (DBLP Indexed)
- R Thiyagarajan, K Thangavel, R Rathipriya, Usage Profile Based Recommendation System, Intelligent Computing Applications (ICICA), 2014 International Conference, pp: 382-386, 2014, IEEE
- R Greata, R Rathipriya, Power Aware Algorithm for MANET using Soft Computing Techniques: A Survey, Journal of science and Applications, Vol. 6, No. 1, pp- 101-106, 2014
- C Vinothkumar, R Rathipriya, A Survey on LSB based Steganography using Soft Computing Techniques, Journal of science and Applications, Vol. 6, No. 1, pp- 117-127, 2014

- K Jayanthi, R Rathipriya, Web Recommendation using K-means based Biclustering Approach and Optimization Algorithms, Journal of science and Applications, Vol. 6, No. 1, pp- 139-144, 2014
- B. Nithya, R.Rathipriya, “Cluster Analysis of Gene Expression data using optimization techniques: A survey”, Second International Conference on Bio signals, Images and Instrumentation, SSN College of Engineering, Chennai , 19-21, March, 2015.
- D. Vasanthi, R. Rathipriya, “Web Usage Profiling Rough K-Means Algorithm”, DST Sponsored National Conference on Information Processing in Sensor Networks, Sona College of Technology, Salem, 2015.
- R. Saranya, R.Rathipriya, “Big Data Analytics In Healthcare A Survey”, National Conference On Innovative Technology &Advanced Computing 2015, Fathima College, Madurai
- K Krishnaveni, R. Rathipriya, “A Study On Big Data Mining Tools &Techniques ”, National Level Conference On Research Issues In Big Data, Rathinam College Of Arts And Science, 2015,Coimbatore
- M. Malarkodi, R. Rathipriya, “A Survey On Big Data Applications”, National Level Conference On Research Issues In Big Data, RathinamCollege Of Arts And Science,2015,Coimbatore
- F. Benezir, R. Rathipriya, “Big Data Analysis Using Map Reduce”, National Level Conference On Research Issues In Big Data, Rathinam College Of Arts And Science, 2015,Coimbatore
- R. Gowri, S. Sivabalan, R. Rathipriya, “Biclustering using Venus Flytrap Optimization Algorithm”, Computational Intelligence in Data Mining—Volume 1, Proceedings of International Conference on CIDM, Bhuvaneswar, 5-6, December 2015, Advances in Intelligent Systems and Computing series volume-410, pp- 199- 207 (scopus indexed)
- S. Sivabalan, R. Gowri, R. Rathipriya, “Optimal Energy Efficient Path Selection Using Venus Flytrap Optimization Algorithm in MANET”, Computational Intelligence in Data Mining—Volume 1, Proceedings of

International Conference on CIDM, Bhuvaneswar, 5-6 December 2015, Advances in Intelligent Systems and Computing series volume-410, pp- 191-198(scopus indexed)

➤ R. Gowri, R. Rathipriya, “Venus Flytrap Optimization Algorithm”, Proceedings of International Conference on Computational Intelligence, Cyber Security and Computational Models (ICC3-2015), Bhuvaneswar, 17th to 19th December 2015, Advances in Intelligent Systems and Computing series volume-412, pp-519- 531.(scopus indexed)

➤ S. Dhamodharavadhani , R. Rathipriya, “A Pilot Study on Climate data Analysis Tools and Software”, International conference on Innovations in Information Embedded and Communication Systems, Karpagam College of Engineering, Coimbatore, 2016

➤ R. Gowri, R. Rathipriya, “Quality based Clustering using MapReduce Framework”, International conference on Innovations in Information Embedded and Communication Systems, Karpagam College of Engineering, Coimbatore, 2016

➤ N. Narmadha, R.Rathipriya, “Triclustering: An Evolution of Clustering”, International conference on Innovations in Information Embedded and Communication Systems, Karpagam College of Engineering, Coimbatore, 2016.

➤ R. Gowri, R. Rathipriya, “MR-GABiT: Map Reduce based Genetic Algorithm for Biclustering Time Series Data”, International Conference on Advances in Computer Applications (ICACA’2016), IEEE, Bharathiar University, Coimbatore, 2016

➤ R. Samya, R. Rathipriya, ”Weather Prediction Using Multiple Linear Regression”, International Conference on Smart Approaches in Computer Science Research Arena , 2017.

➤ L. Abirami, R. Rathipriya, ”Survey on Data Mining Techniques for Crop Prediction ”, International Conference on Smart Approaches in Computer Science Research Arena , 2017.

- R. Gowri, R. Rathipriya, “Cohesive Sub-Network Mining from Protein Interaction Network using Score based Co-Clustering with MapReduce Framework (MR-CoC)”, International Conference on Big Data and Cloud Computing(ICBDCC 2017), Springer, Karunya University, Coimbatore, 2017. (scopus indexed)
- K. Prabu, N. Narmadha, R. Rathipriya, “Cohesive Sub-Network Mining from Protein Interaction Network using Score based Co-Clustering with MapReduce Framework (MR-CoC)”, International Conference on Big Data and Cloud Computing(ICBDCC 2017), Springer, Karunya University, Coimbatore, 2017. (scopus indexed)
- Sivabalan, S., Rathipriya, R., Slot scheduling Mac using energy efficiency in ad hoc wireless networks , Proceedings of the International Conference on Inventive Communication and Computational Technologies, ICICCT 2017

### International Journals

- R. Rathipriya, K. Thangavel, A Fuzzy Co-Clustering approach for Clickstream Data Pattern, Global Journal of Computer Science and Technology, Vol. 10, No. 6, pp:11-16, 2010.
- R. Rathipriya, K. Thangavel, J. Bagyamani, Binary Particle Swarm Optimization based Biclustering of web Usage Data, International Journal of Computer Application, Vol. 25, No.2, pp:43-49, 2011. (DBLP Indexed) (IF is 0.841 based Google Scholar)
- R. Rathipriya, K. Thangavel, J. Bagyamani, Evolutionary Biclustering of Clickstream Data ,International Journal of Computer Science Issues, Vol. 8, pp:32-38, 2011. (DBLP Indexed) (IF is 0.242 based Google Scholar)
- R. Rathipriya, K. Thangavel, J. Bagyamani, Extraction of Target User Group from Web Usage Data Using Evolutionary Biclustering Approach, International Journal of Applied Meta-heuristic Computing (IJAMC), Vol. 2, No.3, pp: 69-79, 2011. (DBLP, ACM Indexed)

- R. Rathipriya, K. Thangavel, J. Bagyamani, Usage profile generation from web usage data using hybrid biclustering algorithm, International Journal of Applied Evolutionary Computation(IJAEC), Vol. 2, No. 4, pp:37-49, 2011. (DBLP ACM Indexed)
- K. Thangavel, R. Rathipriya, A New Evolutionary coclustering for Web Usage Profiling, International Journal of Soft Computing , Vol. 3, No. 3, pp:37-49, 2011. (SCOPUS Indexed) (H-Index is 4)
- K. Thangavel, R. Rathipriya, A Discrete Artificial Bees Colony Inspired Biclustering Algorithm, International Journal of Swarm Intelligence Research, Vol. 3, No. 1, pp:30-42, 2012. (DBLP , ACM Indexed)
- P. S. Raja, R. Rathipriya, Optimal Web Page Category for Web Personalization Using Biclustering Approach, International Journal of Computational Intelligence and Informatics, vol. 1, 2012.
- Bagyamani J, Thangavel K and Rathipriya R, “Extraction of Optimal Biclusters from Gene Expression Data ”,International Conference on Information and Communication Technologies, V. V Das, R. Vijaykumar et al. (Eds.), Communications in Computer and Information Science, Vol 101, pp 380- 383, 2010.
- Bagyamani J, Thangavel K, and Rathipriya R, Bottom up Biclustering Using One Leave out Correlation’, Global Journal of Computer Science and Technology Vol 11 (2) ,pp 9-15,2011.
- Bagyamani J, Thangavel K and Rathipriya R., ‘Biological Significance of Gene Expression Data using Similarity based Biclustering Algorithm’, International Journal of Biometrics and Bioinformatics (IJBB), Vol. 4(6), pp 201-216, 2011.
- K. Thangavel, R. Rathipriya, Query Based Biclustering of Web Usage Data, Journal of Engineering and Applied Sciences, Vol. 7, No.7, pp:456-461, 2012.



- R. Thiyagarajan, K. Thangavel, R. Rathipriya, Recommendation of Web Pages using Weighted K-Means Clustering, International Journal of Computer Applications, Vol. 86 No.14, pp: 44-48, 2014. (DBLP Indexed)
- K. Thangavel, R. Rathipriya, Mining Correlated Bicluster from Web Usage Data using Discrete Firefly Algorithm Based Biclustering Approach, International Journal of Mathematical, Computational, Physical and Quantum Engineering Vol:8 No:4, pp:700-705,2014. (DBLP Indexed)
- R. Rathipriya, K. Thangavel, Extraction of Web Usage Profiles using Simulated Annealing Based Biclustering Approach, Journal of Applied Information Science Vol: 2 No:1, pp: 2-29, 2014. (DBLP Indexed)
- J Bagyamani, K Thangavel, R Rathipriya, “Comparison of Biological Significance of Biclusters of SIMBIC and SIMBIC+ Biclustering Models”, International Journal on Information Technology, Vol.3, No. 1, PP: 5-8, 2013, (1.0285)
- R Gowri, R Rathipriya, “A Study on Clustering the Protein Interaction Networks using Bio-Inspired Optimization”, International Journal of computational intelligence and informatics, Vol.3 , No.2 , pp: 89-95, 2013
- J Bagyamani, K Thangavel, R Rathipriya, “Biclustering of gene expression data based on hybrid genetic algorithm”, International Journal of Data Mining, Modelling and Management, Vol. 5, No. 4, pp: 333-350, 2013, InderScience, (Scopus, DBLP)
- R. Thiyagarajan, K. Thangavel, R. Rathipriya, Recommendation of Web Pages using Weighted K-Means Clustering, International Journal of Computer Applications, Vol. 86 No.14, pp: 44-48, 2014. (DBLP Indexed)
- K. Thangavel, R. Rathipriya, Mining Correlated Bicluster from Web Usage Data using Discrete Firefly Algorithm Based Biclustering Approach, International Journal of Mathematical, Computational, Physical and Quantum Engineering Vol:8 No:4, pp:700-705,2014. (DBLP Indexed)

- R. Rathipriya, K. Thangavel, Extraction of Web Usage Profiles using Simulated Annealing Based Biclustering Approach, Journal of Applied Information Science Vol: 2 No:1, pp: 2-29, 2014. (DBLP Indexed)
- R. Gowri, R. Rathipriya, Extraction of Protein Sequence Motif Information using PSO K-Means, Journal of Network and Information Security Volume 2, Issue 2, 2014
- R. Gowri, R. Rathipriya, Protein Motif Comparator using PSO K-Means, International Journal of Applied Metaheuristic Computing, Vol-7, Issue-3, 2016.
- E.Vidhya, R.Rathipriya, A Study on Unstructured Data Security Issues, International Journal of Innovations & Advancement in Computer Science, Vol-5, Issue-3, 2016.
- S.Selvaraj, R.Rathipriya, A Study on Energy Efficient Routing Protocols in Wireless Sensor Routing, International Journal of Innovations & Advancement in Computer Science, Vol-5, Issue-3, 2016
- V. DiviyaPrabha and R. Rathipriya, "IoT Data and its Application-A Preliminary Study", International Journal of Computational Intelligence and Informatics, Vol.6, No.1, June 2016, PP:25-29.
- V. DiviyaPrabha and R. Rathipriya, "Reliable Techniques for Handling IoT Data (Unstructured Data)", International Journal of Control Theory and Applications (IJCTA), Vol.No.10, No:10, PP:851-859, 2017 (Scopus indexing).
- S. Dhamodharavadhani, R. Rathipriya, "European Countries' Climatic Analysis and Forecasting", International Journal of Control Theory and Applications (IJCTA), Vol.10, No.9, PP:129-144, 2017 (Scopus indexing)
- R Gowri, R Rathipriya, Local Optima Avoidance in GA Biclustering using Map Reduce, International Journal of Knowledge Discovery in Bioinformatics (IJKDB), 2017
- R Rathipriya, A Novel Evolutionary Biclustering Approach using MapReduce (EBC-MR), International Journal of Knowledge Discovery in Bioinformatics (IJKDB), 2017

## Book Chapters

- R. Rathipriya, K. Thangavel, Hybrid Swarm Intelligence-Based Biclustering Approach for Recommendation of Web Pages, Emerging Research on Swarm Intelligence and Algorithm Optimization, Source Author(s)/Editor(s): Yuhui Shi (Xi'an Jiaotong-Liverpool University, China) DOI: 10.4018/978-1-4666-6328-2.ch007, pages 161-180. Publisher: Information Science Reference, IGI Global, USA.
- R. Rathipriya, K. Thangavel, J Bagyamani, Usage Profile Generation from Web Usage Data Using Hybrid Biclustering Algorithm, Modeling Applications and Theoretical Innovations in Interdisciplinary Evolutionary Computation, Source Author(s)/Editor(s): Wei-Chiang Samuelson Hong Oriental Institute of Technology, Taiwan, DOI: 10.4018/978-1-4666-3628-6, pages: 260-272, Publisher: Information Science Reference, IGI Global, USA.
- R Rathipriya, K Thangavel, J Bagyamani, "Extraction of Target User Group from Web Usage Data Using Evolutionary Biclustering Approach", International Journal of Applied Meta-heuristic Computing, Source Author(s)/Editor(s): Peng-Yeng Yin (National Chi Nan University, Taiwan), DOI: 10.4018/IJAMC, pages: 253, 2012. Publisher: Information Science Reference, IGI Global, USA, (DBLP Indexed, ACM Indexed)
- R. Rathipriya, Design Solutions for Improving Website quality and Effectiveness, Chapter-6, Identification of Optimal Web Page Set based on Web usage using Biclustering Optimization Techniques, pp-141-161, Publisher: IGI Global, ISBN- 9781466697645, 2016
- R. Gowri, R. Rathipriya, Handbook of Research on Computational Intelligence Applications in Bioinformatics, Chapter 12: Extraction of Protein Sequence Motif Information using Bio-Inspired Computing, pp-240-262, Publisher: IGI Global, ISBN- 9781522504276, 2016
- R. Gowri, R. Rathipriya, Advancements in Applied Meta-heuristic Computing, Chapter 4: Protein Comparator using Bio-Inspired 2-way k-means, pp- 95-117 , Publisher: IGI Global, ISBN- 9781522541516, 2017

## EVENTS ORGANIZED

- National Seminar on Bio-Computing, 2011 (Organizing Committee Member)
- International Conference on Pattern Recognition Informatics and Medical Engineering, 2012 (Organizing Committee Member)
- International Conference on Pattern Recognition Informatics and Medical Engineering, 2013 (Organizing Committee Member)
- National Workshop on Rough Set in Mobile Computing, 2011 (Organizing Committee Member)
- International Workshop on Rough Set, 2012 (Organizing Committee Member)
- National Workshop on Emerging Trends in E-Technology, 2013
- National Workshop on Genome Computing, Jan 29<sup>th</sup>& 30<sup>th</sup>, 2014
- One Day Workshop on Preparational Tips and Tricks- SET(CS) 2016, Feb 6<sup>th</sup> 2016
- National Level Symposium “Continuum 2K15”, Sep 4<sup>th</sup> 2015.

## SPECIAL LECTURES & INVITED LECTURES

- Special Lecture in the YSSP organized by Periyar University and TNSCT, May 2010.
- Special Lecture in the YSSP organized by Periyar University and TNSCT, May 2011.
- Invited Lecture on Web Mining, Sri Ganesh College of Arts and Science, Salem, January, 2014.
- Invited Lecture on Green Computing, Sri Sarada College for Women, Salem, January, 2015.
- Invited Lecture on Role of ICTs in Mathematics, NKR Govt. Arts College(W), Namakkal, September, 2015.

- Invited Lecture on Data Mining Techniques using Matlab, Sri SakthiKailashCollege for Women, Salem, November, 2015.

## RESEARCH PROJECTS

Project Title: A study on Evolutionary Biclustering Approach to Identify the Optimal Customer Groups for Target Marketing

Duration: 2 years

Amount: Rs. 1,90,000/-

Status: Completed

Fund Agency: UGC