Name : Dr. M.MANIMEKALAI

Designation : Research Head, Research and Development Cell

Department : COMPUTER SCIENCE

Qualification : M.Sc.(Mathematics)., P.G.D.C.A., M.Phil.(C.Sc).,M.Sc(I.T).,Ph.D(C.Sc).,

Experience : Teaching: 34 Years 10 Months   Years 10 Months

Area of Specialization(s) : Artificial Neural Networks, Data Mining and Warehousing,

  Cloud Computing

Email (Official ID) : manimekalai@sigc.edu

Aadhar Number : 5401 4250 0226

Academic Qualifications

Degree	Branch	Institution/UniversityName	Year of Graduation
Ph.D.	Computer Science	Shrimati Indira Gandhi College	2011
M. Phil	Computer Science	Regional Engineering College	1995
M.Sc. IT	Information Technology	Periyar University	2008
M.Sc.	Mathematics	Seethalakshmi Ramaswamy College	1988
PGDCA	Computer Applications	Bishop Heber College	1989

Research Guidance

Programme	No.of Scholars	
	Completed	**Pursuing**
COMPUTER SCIENCE	**6**	**2**

Research Publications (Indexed)

International

1. Published the Research work entitled "**Application of Machine Learning Algorithms in location specific crop yield prediction"** in International Journal of Research in Computer Application and Robotics. ISSN:2320-7345 , 12.12.2023.

2. Published the Research work entitled " **A Comprehensive Review of Deep Learning Applications and Advances in Crop Demand Forecasting**" in International Journal of Research in Computer Application and Robotics. ISSN: 2320-7345,July 2024.

3. Published the Paper "**Adolescent suicides in Kodagu, a rural district of South Karnataka, India**" 'Shodha' International Journal (Under UGC-Care I). ISSN No: 2249-0396, Year 2024, Pages 187.

4. Published the Paper "**Dastinib induced ulcerative colitis: Series of two case reports"**. Indian Journal of Gastroenterology, Volume 42(Suppl), Year 2023, Pages 112-113.

5. Published the Paper **"Weather Forecasting With Optimization Based Neural Network Classification"** Weblog , Volume 8, Year 2021.

6. Published the Paper "**Ant Colony –Information Gain Based Feature Selection Method for Weather Dataset"** Annals of R.S.C.B, , Volume 25, Year 2*021.*

7. Published the Paper **"A Context Sensitivity based Access Control for Communication Security for the Big Data Analytics**" International Journal of Analytical and Experimental Model Analysis , Volume 12, Year 2020.

8. Published the Paper "**Feature Selection Techniques For Weather Forecasting Models using. Machine Learning Techniques"** International Journal of Electrical Engineering and Technology (IJEET, Volume 2, Year 2020.

9. Published the Paper "**Comparison of Classification Techniques Rainfall Prediction Using Machine Learning"** Alochana chakra journal , Volume 9, Year 2020.

10. Published the Paper **"A Novel Authentication Method For Big data environment",**International Journal of Recent Technology and Engineering (IJRTE), , Volume 8, Year 2019.

11. Published the Paper "**Approval of data in HADOOP Using Apache Sentry**", JCSE International Journal of Computer Science and Engineering (IJRTE), , Volume 7, Year 2019.

12. Published the Paper "**A Preprocessing Of Large scale Datasets By Using An Iterative Classification Scheme**" The International Journal of Advanced Research Trends In Engineering Technology (IJARTET) , Volume 5, Year 2018..

13. Published the Paper **"Identification of Selective forwarding Attacks using Channel Aware And Adaptive Scheme In WSN"** International Journal of Advanced Research Trends In Engineering and Technology (IJARTET) , Volume 5, Year 2018.

14. Published the Paper "**Detection and Defense Mechanism For Malicious Mode In Mobile Adhoc Network Using Cluster and Reputation Scheme**" International Journal of Advanced Research Trends In Engineering and Technology (IJARTET, Volume 5, Year 2018.

15. Published the Paper "**Efficient Clue Based Route Search On Road Network**" International Journal of Research in Computer Science (IJRCS, Volume 4, Year 2018.

16. Published the Paper "**Anchoring your big data Big data environment**",International Journal of Recent Technology and Engineering , Volume 6, Year 2018.

17. Published the Paper "**Hide And Seek Way To Hide Encrypted Data In QR Code Using the Concepts Steganography and Cryptography"**, International Journal of Advanced Research In Computer And Communication Engineering (IJARCCE, Volume 6, Year 2017.

18. Published the Paper "**A Position Based Routing Technique In Mobile Adhoc Network"** International Journal of Research Science and Engineering (IJRSE) , Volume 3, Year 2017.

19. Published the Paper "**Secure Online Payment Process Using FRODO**" International Journal of Research Science and Engineering (IJRSE) , Volume 9, Year 2017.

20. Published the Paper " **Sharing A Workload In Frequent Sequence Using a Load Balancing Algorithm"** International Journal of Research Science and Engineering (IJRSE, Volume 9, Year 2017.

21. Published the Paper "**Integrating and Classification Of Facial Expressions To Children with**

Autism Spectrum Disorders" International Journal of Information and Computation Technology International Journal of Management Research in Technology, Volume 4, Year 2017.

22. Published the Paper "**A Hypothesis Analysis on the Proposed Methodology for Prediction of Polycystic Ovarian Syndrome**" IJCSET, Volume 6, Year 2016, Pages 396-400.

23. Published the Paper "**An Impact 0f Big data in Business"** International Journal of Current Research, Volume 8, Year 2016.

24. Published the Paper " **A Novel Hybrid Framework for Risk Severity of Polycystic Ovarian Syndrome"**International Journal Of Control Theory and Applications (IJCTA),, Volume 9, Year 2016, Pages 19-27.

25. Published the Paper "**HADOOP VS BIG DATA"** International journal of Recent Advances in Multidisciplinary Research, Volume 2, Year 2015, Pages 0656-0667.

26. Published the Paper "**Rapid And Sensitive Dot Matrix Methods For Genome Analysis** ", International Journal of Science and Engineering(, Volume 4, Year 2015.

27. Published the Paper "**Hadoop Vs Big Data**" International Journal of Recent Advances in Multidisciplinary Research, Volume Volume 2, Issue 08 , Year 2015, Pages pp.0656 –066.

28. Published the Paper "**Correlation Of Artificial Neural Network Classification And Attribute Filtering Algorithm**" IJRET: International Journal of Research in Engineering and Technology , Volume 4, Year 2015.

29. Published the Paper "**Survey of Hardware Platforms Available for Big data analytics Using K-Means Clustering Algorithm"** International Journal of Science and research(IJSR), , Volume 4, Year 2015.

30. Published the Paper "**A literature Review on Polycystic Ovarian Syndrome and Data mining Techniques**" International Advanced Research In Computer Science and Software Engineering ,, Volume 2, Year 2014.

31. Published the Paper "**Enhancing Education among High –Functioning Children Autism Using Data Mining**" International Journal of Information Sciences and application, , Volume 46, Year 2014.

Presentations In Conference

1. Presented the paper entitled "**Diet Recommendation System for Cancer Patients Applied by Aprior Algorithm** " National Conference on Recent Advances in Computer Vision and Information Technology at Department of CSE & IT,Government College of Technology,Coimbatore, Year 2015.

2. Presented the paper entitled "**A Novel Diet Recommendation System for Breast Cancer Patients Using Apriori Algorithm**"National Conference on Software and Computing Technologies at Shrimati Indira Gandhi College,Trichy. Year 2015.

3. Presented the paper entitled "**Business Intelligence and Analytics in Big data**" International conference on Computational Intelligence and Big Data Analytics, Volume 1, Year 2015.

4. Presented the paper entitled "**Framework for evaluating the classification techniques with proposed hybrid feature selection method for weather prediction**" International conference on Challenges and Responses of Organization during turbulent global business environment in 2019.

5. Presented the paper entitled "**Empowering tech Upgrading for Sustainable Growth using Machine Learning Techniques**" in the National Level Conference on" Sustainable Innovation and policy Initiatives for startup young Entrepreneurs organized by the Department of Commerce, Vivekanandha Arts and Science College for Women on 9.2.2024.

6. Presented the paper entitled "**Optimizing Paddy Cultivation through Big Data Analytics**" in the 5th **International Conference on "Metaverse Technologies and Cloud Computing-(ICMTCC-2024)**" organized by PG & Research Department of Computer Science & Application , Vivekanandha Arts and Science College for Women on 18.3.2024 & 19.3.2024.

7. Presented the paper in One Day International Conference "**Trends in Artificial intelligence (ICTAI)**" held on 20.09.2024, on the topic **"Machine Learning for crop yield Prediction:A comparative study of convolution Neural Networks**" organised by PG & Research Department of Computer Science, Shrimati Indira Gandhi College, Tiruchirappalli-2.

8. Presented the paper in One Day International Conference on **"Next Generation Technologies for Sustainable Computing**" held on 24.01.2025, on the topic" **Optimizing Paddy Cultivation through Big Data Analytics and Machine Learning Techniques**" organised by Department of Computer Applications, Shrimati Indira Gandhi College, Tiruchirappalli-2.

Conference/Seminar/Workshop Organized

1. Co-ordinate the Five days Computer Training Programme for B.T Assistants of Higher Secondary Schools of Trichy District from 15.12.2009 –18.12.2009.

2. Co-ordinated the Five days Computer Training Programme for B.TAssistants of English, Maths, Physics and Drawing Masters of Higher Secondary Schools of Trichy District from 10.07.2009 to 15.07.2009.

3. Co-ordinated the Three days Computer Training Programme for all Headmaster and Headmistress of Higher Secondary Schools and ADW Higher Secondary Schools from 18.05.2009 to 20.05.2009.

4. Co-ordinated the Basic Training in Computer Applications for the Staff of the office of the Superintendent of Police

5. Co-ordinated the Computer cum Internet Awareness Programmes for Lawyers.

6. Co-ordinated the Computer cum Internet Awareness Programmes for Doctors.

7. Co-ordinated the Computer Training Programme Organized by Dinamalar and CSI Women Student Branch of SIGC.

8. Co-ordinated the Computer Awareness Programme for Heads of Higher Secondary Schools on 19.01.2000.

9. Co-ordinated the Training Programme for Trichy Collectorate staff and Panchayat Union for 15 days(12-04-2000 to 1-05-2005).

10. Co-ordinated in Training CHEERS – 25 Special School Children under NCLP Scheme conducted by CSI Student Chapter and Trichirappalli District Administration from 04-11-2000 to 13-12-2000.

11. Co-ordinated the Basic Computer Training Programme for Police Commissionerate from 27-11-2000 to 07-12-2000.

12. Co-ordinated the Computer Oriented Inter School Competition – SIGCSI 2001 conducted in Association with Tamilnadu State Council for Science and Technology(TNSCST) and Trichirappalli District Administration on 09-10-2001.

13. Co-ordinated the Computer Awareness Programme for the Self Help Group (SHG) Women from 16-09-2003 to 16-10-2003.

14. Co-ordinated Computer Training Programme for Women Police from 10-08-2004 to 03-11-2004.

15. Co-ordinated the Free Computer Training Programme Basic Communication Skill for 30 CHEERS Special School Children from 15-12-2006 to 31-01-2007.

16. Co-ordinated the Vocational Computer Training Programme for SHG of Various NGOs conducted in Association with Tamilnadu Corporation for Development of Women Limited from 01-01-2007 to 24-02-2007.

17. Convener and Co-ordinator for several Conferences/Seminars/ Workshops/Symposia in the Departments of Computer Science, Information Technology and Applications and MCA of our College write from 1990 onwords.

18. As the Management Committee Member and Office Bearer in the Computer Society of India, Trichy Chapter for more than 10 years and Contributed the Services in the conduct of Symposia/Seminar/Workshops/ Students Convention and many more events.

19. Organized the Virtual Faculty Development Programme"Publication Metrics-h-index, Impact Factor and Citation Databases" on 13th September 2021.

20. Organized the Faculty Development Programme "Paradigm on Writing Research Proposal for Funding"on 13th July 2022.

21. Organized the Faculty Development Programme "Redefining Research Skills: Enriching Research and Publications" from 1.4.2024 to 5.4.2024.

22. Organized an "Inter Departmental Paper Presentation Contest" on 25.01.2025

Invited Speaker / Session Chair- Conference / Seminar / Workshop

1. Chief Guest for the intercollegiate competitions organized by the Department of Computer Applications, Bishop Heber College, Trichy in 2011.

2. Adjudicator for many events (poetry competition for muthamil vizha and Hostel day , Rongoli competitions) conducted by Department of Tamil and other Departments of our college from 1993-2017.

Member in BoS

1. University Nominee of Bharathidasan University to the Board of Studies in Computer Science(UG& PG from 15.10. 1999) FOR 3 YEARS

2. University Nominee of Bharathidasan University to the Board of Studies in Computer Science(PG), Computer Applications (PG), PGDCA, SoftwareTechnology(PG), Cyber Technology(PG) from 15.11.2005 FOR 3 YEARS.

3. University Nominee to the Board of Studies in Computer Science of A.V.College, Maiyiladuthurai from 2.1.2012 to 2.1.2014.

4. University Nominee to the Board of Studies in M.Sc Embedded Systems of Nehru Memorial College(Auto), Puthanampatti from 30.4.2013 to 30.6.2015.

5. University Nominee to the Board of Studies in Computer Science and Computer Application(UG) of Nehru Memorial College (Auto), Puthanampatti from 30.4.2013 to 30.6.2015.

6. University Nominee to the Board of Studies in Information Technology of   St. Joseph's College (Auto),Trichy from 10.5.2013 to 10.5.2015.

7. University Nominee to the Board of Studies in Computer Science of Holy Cross College (Auto), Trichy from 26.5.2013 to 26.5.2015.

8. University Nominee to the Board of Studies in Computer Science of Bishop Heber College (Auto), Trichy from 11.6.2013 to 11.6.2015.

9. University Nominee to the Board of Studies in Computer Application of National College (Auto), Trichy with effect from 26.7.2012 to 26.7.2014

10. University Nominee to the Board of Studies in Commerce with Computer Application (UG & PG) of J.J College of Arts & Science, Pudukkottai from 8.11.2012 to 8.11.2014.

11. Chair person of Board of studies in Computer Science (PG) of Bharathidasan University from 01.4.2012 to 01.4.2015.

12. Members of Board of studies in Computer Science (PG) of Bharathidasan University from 01.4.2012 to 01.4.2015.

13. Member of Board of studies in Computer Science of Bharathidasan university for both UG and PG from 24.9.1999 to 24.9.2002

14. Member of Purchase Committee for M.Tech Programme in Computer Science of Bharathidasan University during the year 2012.

15. Member of Standing Committee on Academic affairs in Bharathidasan University from 2013 to 2015

16. Member of College Committee of Urumu Dhanalakshmi College, Trichy from 28.1.2013 to 27.1.2016.

17. University Nominee for the Academic Council of Periyar EVR College from 27.6.2013 to 27.6.2015.

18. University Nominee for the Academic Council of J.J College of Arts & Science, Pudukkottai from 8.11.2012 to 8.11.2014.

19. University Nominee in the College Committee of Urumu Dhanalakshmi from 28.1.2013 to 27.1.2016.

20. Member of CCCD of World Class Curriculum Development Cell of Bharathidasan University.

21. Member of Board of Question paper setters for UG and PG in Bharathiyar University Coimbatore, Periyar University Salem, Madurai Kamaraj University Madurai during the period 1997 to 2000.

22. Chairman and Member of Board of Examiners for central valuation held in Bharathidasan University many times (Both for UG and PG)

Membership in Professional Bodies

Name of the Professional Body	Nature of Membership	Duration
Computer Society of India, Trichy Chapter	Management Committee Member	1998-2001
Internet Users' Club of Trichy (IUCT)	Treasurer	1998-2002
Computer Awareness Society	Co-ordinator	1998
CSI Womens Studies, Branch of SIGC	Co-ordinator	2005-2007
Computer Society of India, Trichy Chapter	Anual Member	2015-2018

Awards/ Honors

Awards/ Honors	Agency/ Institute	Year of Award
Elected as Member of the Senate of Bharathidasan University from among the Registered Graduates of Tiruchirappalli Revenue District Under Sub Section (4)of Class II (other members) of Section 20 under Chapter III of Bharathidasan University Act, 1981.	Bharathidasan University	2010 to 2013.
Elected as Member of the Senate of Bharathidasan University from among the Registered Graduates of Tiruchirappalli Revenue District Under Sub Section (4) of Class II (other members) of Section 20 under Chapter III of Bharathidasan University Act,1981	Bharathidasan University	18.1.2013 to 18.1.2016.
Elected as Member of the Senate of Bharathidasan University from among the Registered Graduates of Tiruchirappalli Revenue District Under Sub Section (4) of Class II (other members) of Section 20 under Chapter III of Bharathidasan University Act, 1981.	Bharathidasan University	01.08.2019 to 01.08.2022
Research Excellence Award	Shrimati Indira Gandhi College	2025
Distinguished Service Award	Shrimati Indira Gandhi College	2025

Others

Role as Research Head in Motivating Faculties and Student in Acquisition of Funds

Organization	Scheme	Funds Received	No of Beneficiaries
TNSCST	STUDENT PROJECT SCHEME	75,000/-	29
TNSCST	POPULARIZATION OF SCIENCE	20,000/-	50
ICSSR NEW DELHI	CONDUCTING NATIONAL SEMINAR	1,70,000/-	200