## **CURRICULUM VITAE**

#### PERSONAL DETAILS

Name **Dr. N. GNANAMBIGAI** 

Present Designation Head & Assistant Professor of Computer Science

Address (Office) Department of Computer Science

Rajiv Gandhi College of Arts and Science,

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# **ACADEMIC RECORDS**

Sl.	Degree	Subject	University	Year of passing
No.				
1.	Ph.D.	Computer Science	Vinayaga Mission	September 2010
			University, Salem	
2.	M.Phil	Computer Science	Manonmaniam	May 2002
			Sundaranar	
			University,	
			Thirunelveli	
3.	M.Sc	Computer Science	Pondicherry	May 1999
			University	
4.	B.Sc	Computer Science	Pondicherry	May 1997
			University	

# AREA OF SPECIALIZATION

Neural Networks, Automata theory, Distributed Systems

# PROFESSIONAL WORK EXPERIENCE

Sl. No.	Institution/College	Designation	From	То
1.	Rajiv Gandhi College of Arts and Science, Government of Puducherry, Puducherry	Assistant Professor &Head	October 2023	Till date
2.	Indira Gandhi College of Arts and Science, Government of Puducherry, Puducherry.	Assistant Professor &Head	2009	2023 October
3.	Kanchi Mamunivar Centre for PG Studies, Government of Puducherry, Puducherry.	Assistant Professor	2001	2009
4.	Pondicherry University Community College. Pondicherry University, Puducherry.	Lecturer	2000	2001

# RESEARCH EXPERIENCE

Degree	Guide/ Co-guide	No. of scholars Submitted / Awaiting Viva voce exam	No. of scholars pursuing
Ph.D. (Computer Science	Guide, Bharathiyar University, Coimbatore	2 completed	2
M.Phil (Computer Science)	Guide	6 completed	

# <u>LIST OF PUBLICATIONS / SEMINARS / WORKSHOPS / FACULTY</u> DEVELOPMENT PROGRAMMES (FDP)

List of Publications						
Number of International journals	Number of International Conferences	Number of National Conferences	Total Number of Publications			
16	18	7	41			
List of Seminars/ Workshops /Faculty Development Programs(FTP)						
Number of Seminars	Number of FDP	Workshops	Total			
9	15	7	31			

#### PUBLICATIONS IN INTERNATIONAL JOURNALS

- 1. G. Punetha Sarmila, Dr. N. Gnanambigai ,Dr. P. Dinadayalan, "Multi-Objective Cockroach Swarm Resource Optimized Deep Belief Neural Network for Job Scheduling in Cloud", Design Engineering (Toronto), ISSN: 0011-9342, Issue: 9,Pages: 5685 5704, 2021, SCOPUS, December 2021.
- 2. A.Vettriselvi, N. Gnanambigai, P. Dinadayalan, S.Sutha, "A Comparative study of Machine Learning Algorithms Using RDD Based Regression and Classification Methods", Annals of the Romanian Society for Cell Biology, ISSN: 1583-6258, Volume 11, Issue 04, April 2021.
- 3. S. Sutha, N. Gnanambigai, P. Dinadayalan, A. Vettriselvi, "**Feature Selection Based Diabetic Detection Using Ensemble Dimensionality Reduction with Machine Learning**", Annals of the Romanian Society for Cell Biology, ISSN: 1583-6258, Vol. 25, Issue 4, pp. 15168-15199, **SCOPUS**, 2021.
- 4. S. Sutha, N. Gnanambigai, P. Dinadayalan, "Extended Self-Organizing Map with Ubiquitous Counter Propagation Network in Classification for Diabetic

- **Database**", Solid State Technology, Vol. 63 No. 6 (2020), ISSN 0038-111X, pp. 11102-11118, **SCOPUS**, **Web of Science**, **H-index: 14**, November 2020
- 5. G. Punetha Sarmila ,Dr. N. Gnanambigai ,Dr. P. Dinadayalan, "HCG-DTOM An Evaluation against DCLOUD and Scientific Workflow Management System", Solid State Technology, Vol. 63 No. 2s (2020), ISSN 0038-111X, pp.4861-4870, SCOPUS, Web of Science, H-index: 25 ,October 2020.
- 6. A. Bastin Britto, P. Dinadayalan, N. Gnanambigai, VettriSelvi A, "Cloud Query Processor Using Cloud Databases", International Journal of Computational Engineering Research (IJCER),ISSN No.: 2250-3005, Vol No.: 10, Issue No.: 07, July 2020.
- 7. Balavinothini, Gnanambigai, "Survey On Feature Selection Techniques Towards Text Mining in Cloud", International Journal of Computer Sciences and Engineering, Vol.-7, Special Issue, 5,E-ISSN: 2347-2693, pp.101-105, March 2019.
- 8. S. Jegadeeswari, P. Dinadayalan, Gnanambigai, "Efficient Dynamic Bloom Filter Hashing Fragmentation for Cloud Data Storage", International journal of Cybernetics and Information Technologies, Volume 19, No 1, pp. 53–72 March 2019, SCOPUS, UGC Approved Journal Number: 14472.
- 9. Jegadeeswari, Dinadayalan, Gnanambigai, "A Review on Fragmented hash based Storage techniques for Query Processing in Cloud Data Storage", International Journal of Computer Sciences and Engineering, pp.225-229, Vol.-7, Special Issue.5, March 2019, UGC Approved Journal Number:63193.
- 10. Jegadeeswari, Dinadayalan, Gnanambigai, "Enhanced Data Security using Neural Network in Cloud Environment", International Journal of Applied Engineering Research Volume 11, Number 1, pp 278-285, March 2016,SCOPUS, UGC Approved Journal Number: 64529
- 11. Jegadeeswari, Dinadayalan, Gnanambigai, "Neural based Security Approach for Cloud Databases using Counter Propagation", Indian Journal of Science and Technology, Vol 9 (16), April 2016, SCOPUS.
- 12. P. Dinadayalan, Gnanambigai, "**Dynamic Learning Machine using Unrestricted Grammar**", published in the International Journal of Computer Science Engineering and Technology (IJCSET), ISSN: 2231 0711, Vol.2, Issue 4, 1118-1123, April 2012.
- 13. P. Dinadayalan, Gnanambigai, "Dynamic Interpolation B-Tree: A New Access Method", International Journal of Computer Applications, ISSN: 0975 8887, Volume 17– No.4, March 2011.

- 14. P. Dinadayalan, Gnanambigai, Balamurugan, "**Hybrid Network Learning**", International Journal of Computer Applications, pp.31-34, Volume 21– No.10, ISSN: 0975 8887, May 2011.
- 15. P. Dinadayalan, Gnanambigai, R. Vasantha Kumari, "Neuro Language Generator", International Journal on Computer Science and Engineering, Vol. 02, No. 04,1453-1461, 2010.
- 16. Gnanambigai, P. Dinadayalan and R. Vasanthakumari, "Neural Associative Memory With Finite State Technology", published in the International Journal of Computer Science and Network Security (IJCSNS), ISSN:1738-7906, VOL.8 No.10, pp.295-300, October 2008.

#### PUBLICATIONS IN INTERNATIONAL CONFERENCE PROCEEDINGS

- 1. G. Punetha Sarmila, N. Gnanambigai, P. Dinadayalan," *Self Scheduling Based on Hexagonal Chebysev Gaussian and Discrete Time Organized Mapping in Cloud*", CSSIT 2019: **Scopus-Indexed IEEE** International Conference on Smart Systems and Inventive Technology(ICSSIT), Tirunelveli, EISBN:978-1-7281-2119-2, ISBN:978-1-7281-2120-8,Nov. 2019, IEEE Xplore, IEEE Conference Publication DOI: 10.1109/ICSSIT46314.2019.8987946.
- 2. Bala Vinothini; N. Gnanambigai; P. Dinadayalan, "Boosting Projection Neural Features for Semantic Similar Clustered Documents in Cloud", Scopus-Indexed IEEE International Conference on Smart Systems and Inventive Technology (ICSSIT), Tirunelveli, DOI: 10.1109/ICSSIT46314.2019.8987838, IEEE Xplore, EISBN:978-1-7281-2119-2 ISBN: 978-1-7281-2120-8, Nov.2019.
- 3. Published & presented a research paper "A Parallel Document-Level Classification Model With Finite State Machine", in the International Conference on Computing Sciences (ICCS 2018-2019) at Loyola College, Chennai on 16-11-2018 and 17-11-2018.
- 4. Published & presented a research paper, "*Dynamic Cloud Indexing Method in Cloud Database*" in the International Conference on Applicable Mathematics (ICAM-2016) at Stella Maris College, Chennai during 30/11/2016 and 01/12/2016.
- 5. Published & presented a research paper," *A Review on Text Mining in Cloud using Feature Selection Techniques*", Proceedings of 40<sup>th</sup> IRF International Conference at Chennai, ISBN:978-93-85973-98-7, pp.119-123 .10<sup>th</sup> April 2016
- 6. Published & presented a research paper, "A Neural Data Security Model: Ensure High Confidentiality and Security in Cloud Data Storage Environment", in the

- International Conference on Advances in Computing, Communications and Informatics (ICACCI), Cochi, India, sponsored by IEEE Communications Society and IEEE Systems, Man, and Cybernetics Society during August 2015. Published IEEE *Xplore*.
- 7. Published & presented a research paper, "Survey on fault tolerant Load balancing algorithms in cloud computing", in the 2nd International Conference on Electronics and Communication Systems (ICECS) at Karunya University, Coimbatore, pp.1535-1540, ISBN: 978-1-4799-7225-8, DOI: 10.1109/ECS.2015.7124879, 27 & 28 February 2015. Published IEEE Xplore on 18 June 2015
- 8. Published & presented a research paper "A Dynamic Network Learning Perspective on Recurrent Neural Network and Unrestricted Grammar", in the International Conference on Mathematics in Engineering and Business Management (ICMEB 2012) held at Stella Maris College (Autonomous), Chennai, March 2012.
- 9. Published & presented a research paper "*Turing Lexical Recognizer*", in the International Conference on Futuristic Trends in Computer Science Engineering & Information Technology (ICCT2012) held at Thiruvalluvar College of Engineering and Technology, Vandavasi, pp.155-160, ISBN:978-81-907153-5-5 January 2012.
- 10. Published & presented a research paper "*Hybrid Network Learning*", in the International Conference on Mathematics and Computer Science, ICMCS 2010 held at Loyola College, Chennai, ISBN 978-81-908234-2-5, vol.2, p.p.569-573, February 2010.
- 11. Published & presented a research paper "Computational Neural Networks With Finite State Technology", in the International Conference on Mathematics and Computer Science, ICMCS09 held at Loyola College, Chennai, ISBN 978-81-8371-195-1, vol.2, p.p.144-119, January 2009.
- 12. Published & presented a research paper "An Associative Memory and Turing Machine Based Approach for Morphology", presented in the International Conference on Digital Factory, ICDF 2008 held at Coimbatore Institute of Technology (CIT), Coimbatore, p.p.32, August 2008.
- 13. Published & presented a research paper "Recurrent Language Recognizer using Finite State Machine", presented in the International Conference on Content Based Image Retrieval held at P.E.S Institute of Technology, Bangalore,, p.p.250-254, July 2008.
- 14. Published & presented a research paper "A Neural Network and Turing Machine Based Approach for Associative Memory", presented in the International

- Conference on Content Based Image Retrieval held at P.E.S Institute of Technology, Bangalore, p.p.239-244, July 2008.
- 15. Published & presented a research paper "Associative Learning Network with Turing Machine", presented in the International Conference on Data Engineering and Management, ICDEM 2008 held at Bishop Heber College, Tiruchirappalli, ISBN:978-81-906267-0-5, p.p.365-368, February 2008.
- 16. Published & presented a research paper "Hybrid Network Learning for Entrepreneurship", presented in the International Conference on Global Entrepreneurship held at SRM University, Chennai during December 2007.
- 17. Published & presented a research paper "*Universal Learning Machine*", presented in the International Conference on Global Business Strategy in Competitive Environment held at Sri Sai Ram Engineering College, Chennai during September 2007.
- 18. Published & presented a research paper "*Dynamic Interpolation IB Path Index*", presented in the International Conference on Global Business Strategy in Competitive Environment held at Sri Sai Ram Engineering College, Chennai during September 2007.

## PUBLICATIONS IN NATIONAL CONFERENCE PROCEEDINGS

- 1. "Survey on Neural Network Techniques", presented in the National Conference on Recent Trends in Information Sciences and Computing I-CUBE'2008 held at Rajiv Gandhi College of Engineering & Technology, Puducherry during April 2008.
- 2. "Dynamic Interpolation B-Tree: A New Access Method", presented in the National Conference on Research Prospects in Knowledge NCKM –8 held at Annamalai University, Chidambaram during April 2008.
- 3. "Dynamic Neural Network for Finite State Machine", presented in the National Conference on Artificial Intelligence and Neural Networks NCAN 2008 held at SRM University, Chennai during April 2008.
- 4. "Neuro Language Generator", presented in the National Conference on Computing Technology held at Velammal College of Management and Engineering, Chennai during January 2008.
- 5. "A Review on Data Mining in E-Commerce", presented in the UGC sponsored National Seminar on Business Ethics, Corporate Governance and Social Responsibility held at Pondicherry University, Puducherry during April 2008.

- 6. "Universal Associative Memory", presented in the National Conference on Emerging Trends in Automata held at Rajiv Gandhi College of Engineering & Technology, Puducherry during October 2007.
- 7. "A Dynamic Path Indexing: A New Approach For OODBS", presented in the National conference on Emerging Trends in Information Technology held at Vivekanadha Institute of Information and Management Studies, Tiruchengode during March 2007.

# RESEARCH PROJECT COMPLETED

Sl.	Title of the project	Funding	capacity	Amount	Year of
No.		Agency		Rs.	Completion
	Computational	UGC Minor	Co-investigator	90,000	2015
1	Morphological	Project			
	Analyzer				

## **INVITED LECTURES AND CHAIRMANSHIPS**

S. No.	Title of Lecture/	Title of Conference/	Organised by	International/	
	Chairmanship	Seminar etc.		National /State/	
				Regional	
1.	Artificial Neural	National Seminar	Bharathidasan Govt.		
	Network	on 15/10/2015	College for	National	
			Women(Autonomous),	National	
			Puducherry		
2.	Keynote address of	CYPERCOMP 16	Idhaya Arts and Science		
	CYPERCOMP 16	11/08/2016	College for	State level	
			Women,Pondicherry,	State level	
			Puducherry		
3	Web design	SEMAPHORE'17	Saradha Gangadharan		
		on 22/09/2017	College, Puducherry	State level	
4	Resource person,	State Level Science	Government Girls		
	choose State Level	Seminar, on	Higher Secondary		
	Winners in	28/08/2018	School, Kadirkamam,	State level	
	Puducherry		Puducherry		

#### PARTICIPATED IN FACULTY DEVELOPMENT PROGRAMMES

- 1. Participated in two-week AICTE Sponsored Faculty Development Programme (FDP), "RECENT ADVANCES IN BIG DATA ANALYTICS OF IOT-DEVICES USING FOG COMPUTING", conducted by Department of Information Technology, Malla Reddy College of Engineering and Technology, Secunderabad, Telangana, December 14 26, 2020.
- 2. Conducted ONE WEEK NATIONAL LEVEL "FACULTY DEVELOPMENT PROGRAM ON CLOUD INFRASTRUCTURE" Organized by Department of Computer Science & IQAC In Association with BRAIN O VISION and AICTE from 21<sup>st</sup> to 25<sup>th</sup> August 2023
- 3. Participated in One-week faculty development Programme on "**BLOCKCHAIN AND ITS APPLICATION**" Organized by Electronics and ICT Academy, NIT Patna under the Scheme of finical assistance for setting up of Electronics and ICT academies by the Ministry of Electronics and Information Technology (MeitY), Government of India during  $04^{th} 10^{th}$  May 2020
- 4. Participated in the National Level Online Faculty Development Programme on "**PYTHON PROGRAMMING**" organized by the Government College for Women ,Kolar, Karnataka in association with Spoken Tutorial, IIT Bombay [An initiative of National Mission on Education through ICT, MHRD, Govt. of India] held from 5<sup>th</sup> June 2020 to 11<sup>th</sup> June 2020.
- 5. Participated 5 days Online National FDP on "ARTIFICIAL INTELLIGENCE" organized by Department of Information Technology, Anil Neerukonda Institute of Technology and Sciences in Collaboration with BrainOVision National youth council of India from 22-05-2020 to 26-05-2020.
- 6. Participated Seven days Online Faculty Development Programme on "SCOPE OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN AUTOMATION" organized by Velalar College of Engineering and Technology from 11-05-2020 to 17-05-2020.
- 7. Participated in "**REFRESHER COURSE IN COMPUTER SCIENCE**", at UGC Human Resource Development Centre (HRDC), Pondicherry University, Puducherry from 03-11-2017 to 23-11-2017.

- 8. Refresher Course in "COMPUTER SCIENCE, INFORMATION TECHNOLOGY & ICT", at UGC-Academic Staff College, Pondicherry University, Puducherry, from 03-09-2013 to 23-09-2013 (21 days).
- 9. "UGC SPONSORED ORIENTATION COURSE", participated in the 108<sup>th</sup> Orientation Course at UGC-Academic Staff College, Pondicherry University, Pondicherry during December 2011.
- 10. **SYSTEM Z MAINFRAME**", participated in the Faculty Development Program at Tata Consultancy Services, Chennai, conducted by Pondicherry Engineering College, September 2009.
- 11. "**DATA MINING AND WAREHOUSING**", participated in the Faculty Development Programme sponsored by Tata Consultancy Services, Chennai, at Pondicherry Engineering College, September 2008.
- 12. "INFORMATION SECURITY", participated in the Faculty Development Programme sponsored by Tata Consultancy Services, Chennai, at Pondicherry Engineering College, September 2007.
- 13. "MODERN COMMUNICATION SYSTEMS & NETWORKING", participated in the AICTE sponsored Staff Development Programme at Sri Manakula Vinayagar Engineering College, Puducherry during February 2008.
- 14. "COMPUTING: INFORMATION, KNOWLEDGE AND BUSINESS INTELLIGENCE", participated in the AICTE sponsored National Seminar at Sri Manakula Vinayagar Engineering College, Puducherry during January 2008
- 15. "AGENT TECHNOLOGY AND WEB SERVICES", participated in the AICTE & ISTE sponsored Short Term Training Program at Sri Manakula Vinayagar Engineering College, Puducherry during March 2007.

#### PARTICIPATED IN NATIONAL WORKSHOPS

- 1. "VIRTUALIZATION & SCALABILITY IN CLOUD COMPUTING", organized in the UGC sponsored National Workshop at Kanchi Mamunivar Centre for P.G. Studies, Puducherry, during February 2012.
- 2. "WORKSHOP ON E-RESOURCES", participated in Workshop at Pondicherry University, Puducherry during June 2009.
- 3. "GRID COMPUTING: TECHNOLOGY & FUTURE RESEARCH", participated in the National Workshop at Pondicherry Engineering College, Puducherry, during June 2009.

- 4. "BEYOND AUTONOMY: TOWARDS EXCELLENCE", participated in the National Workshop conducted by Kanchi Mamunivar Centre for P.G. Studies, Puducherry, during March 2009.
- 5. "DATA MINING AND DATA WAREHOUSING", participated in Workshop at Pondicherry University, Puducherry during March 2009.
- 6. "NATIONAL KNOWLEDGE COMMISSION'S REPORT ON HIGHER EDUCATION IN INDIA", participated in the National Workshop conducted by Kanchi Mamunivar Centre for P.G. Studies, Puducherry, during July 2007.
- 7. "GIRD COMPUTING", participated in the National Workshop at Pondicherry Univerity, Puducherry during March 2007.

#### PARTICIPATED IN NATIONAL SEMINARS

- 1. Participated & acted as a "Judge" for the Regional Level Science Seminar 2018 conducted at Government Girls Higher Secondary School, Kadirkamam, Puducherry during August 2018 to choose State Level Winners in Puducherry.
- 2. "BEYOND AUTONOMY: TOWARDS EXCELLENCE & THE FRENCH CONNECTION: FRENCH EDUCATION IN PUDUCHERRY", participated in the UGC sponsored National Seminar at, Pondicherry University, Puducherry conducted by Kanchi Mamunivar Centre for P.G. Studies, Puducherry, during January 2008.
- 3. "COMPUTING: INFORMATION, KNOWLEDGE AND BUSINESS INTELLIGENCE", participated in the AICTE sponsored National Seminar at Sri Manakula Vinayagar Engineering College, Puducherry during January 2008.
- 4. "ADVANCES IN OPTICAL NETWORKING", participated in the AICTE sponsored National Seminar at Sri Manakula Vinayagar Engineering College, Puducherry during July 2007.
- 5. "GRID COMPUTING AND RESOURCE MANAGEMENT", participated in the AICTE sponsored National Seminar at Sri Manakula Vinayagar Engineering College, Puducherry during September 2007.