Faculty Profile



Name :Dr.K.NANDHINI

Designation :Assistant Professor

Address : No.4.Magizhagam,G-Estate,

Veeriyam Palayam Road,

Kalapatti, Coimbatore-48

Contact Number : 98436 81990

Email ID : <u>krishnandhini@yahoo.com</u>

krishnandhini@gmail.com

Date of Joining in Collegiate Education : 27/07/2015

Date of Joining in the Present College : 27/07/2015

Academic Profile :

Degree	Institute/College	University	Period
B.Sc Comp.Sci	TSAAST	Bharathiar	1993-1996
	College,Perur,Coimbatore		
MCA	Bharathidasan	Bharathidasan	1998-2001
M.Phil	Bharathidasan	Bharathidasan	2004
Ph.D Bharathiar		Bharathiar	2012

Teaching Experience

i)	Total	: 23	Years	03 Months
ii)	UG	: 15	Years	03 Months
iii)	PG	: 23	Years	03 Months

Name of the college	Position held	Period
D.J.Academy for Managerial	Lecturer	July 2001 to June 2008
Excellence, Coimbatore – 32		
Dr.N.G.P.Arts and Science	Assistant Professor and Head	June 2008 to April 2012.
College, Coimbatore-46		
Professional Group of	Professor	April 2012 to June 2015
Institutions, Palladam		
Coimbatore 641 062		

Honors and Research Awards : Nil

Field of Interest

i) Teachingii) Research:Programming: Data Mining

iii) **Proficiency in instrumentation** :

Research Guidance

Guidance Number : **Ph.D** - 25824-20612/A2/2015

Dt: 14/12/2015 : **M.Phil** – 14682/A2/2006

Dt: 08/12/1006

(If have more than one university, given them against university name)

S.	M.Phil/	Name of the	Thesis Title	Completed
No	Ph.D	Student		/ongoing
1	M.Phil	B.Nithyasri	A Performance Evaluation of Classification	Completed
			Techniques in Education Domain	
2	M.Phil	P.Usha	Predicting Academic Performance using Genetic	Completed
			Algorithm and SVM Classifier	
3	M.Phil	Indhumathi	An Adaptive Load Balancing prioritization	Completed
			technique in distributed network.	
4	M.Phil	M.Anitha	Providing Secure Data in Heroku Cloud using	Completed
			Hybrid Cryptographic System	
5	M.Phil	C.Suganya	Multicast Data Communication Based on Dynamic	Completed
			Clustering in WSN using Diffie-Hellman Algorithm	
6	Ph.D	B.Ramesh	APDS :An Aggregated Probabilistic Data Store for	Completed
			Streaming Data with improved Query Time using	
			Tiny Memory	
7	Ph.D	Manimekalai	Agricultural Data Mining Model for soil	Completed
			characteristics prediction and improving crop yield	
8	Ph.D	V.Shobana	Bio Inspired Ensemble Feature Selection BIFS and	Completed
			Heterogeneous Dynamic (HDEM) for Multiclass	
			Imbalanced Data	
9	Ph.D	T S Anushuya	Data Mining	Ongoing
10	Ph.D	M. Selvanayaki	Data Mining	Ongoing
11	Ph.D	M.Anitha	Cloud Computing	Ongoing
12	Ph.D	L.Mahalaksmi	Big data	Ongoing
12	ווו.ט	L.Mahalaksmi	Dig data	Oligoi

Funded Projects : Nil **Membership in Professional Bodies** :

S. No	Name of the Professional Body	Membership Detail with Number
1	Computer Society of India (CSI)	Life Member: 00172547 dt 01/03/2010

Research Publications

• Research Papers

: attached paper list - with doi and http link

of the Paper (Annexure -I)

Book/Book Chapters : 1. A Book Chapter in Agricultural Data

Mining in Hydroponics

Approach: A Review", Modern Computer

Science and Applications,

IOT Academy Publishers, ISBN-978-93-

93622-07-5(2022)

: -

:-

2. A book chapter on "Application of predictive analytics in Healthcare using Machine Learning Algorithms -An

Experimental Approach" in Advancement in machine learning and its applications for prediction and classification by immortal

publications,ISBN:978-93-5607

Patent

National and International Conferences

: attached separate list (Annexure – II)

- i) Participated
- ii) Paper Presented
- iii) Poster Presented

Conference/Seminars Organized

Workshop attended

- :1.Participated in a workshop on "Genetic Algorithm-A Practical Implementation and Approach using MATLAB" at D.J.Academy for Managerial Excellence on 7th Jan 2011.
- 2. Participated in a research workshop on "Open Source Tools for Research in Data Mining" at D.J.Academy for Managerial Excellence on 28th Feb 2009.
- 3. Participated a two days International Workshop on "Research Methodologies and Techniques" at Avinashilingam University for Women during 18th & 19th July 2008.

• Resource Person/Invited Lectures :

- Delivered a Lecture on "Career Development " on 17th Aug 2023 at Computer Science Department at NIFT-TEA College ,Tirupur.
- Conducted a Personality development Programme on "Confidence Building and Positive Thinking" at Terf's Academy, Avinashipalayam ,Tirupur on 28/06/2019.
- Acted as Resource person for International women's day celebration on March 8th 2019 at

- Sakthi Institute of Information and Management Studies.
- Acted as a Session Chair for two days International Conference on Research Trends in Computing Technologies on August 10,2018 at Dr. N.G.P.Arts and Science College.
- Acted as a Resource Person for the Panel Discussion Session on the topic "Role of Educational Technology in Teaching, Learning and Evaluation" in the two day National Seminar at Dr.N.G.P. College of Education, Coimbatore on 16th &17th of March 2012.
- Acted as a Judge for the event "Paper Presentation" in the intercollegiate function in D.J.Academy for Managerial Excellence, Coimbatore on 02nd Feb 2012.
- Acted as a Judge for the event Tamil Debate of the function Tamil Vizha at Dr. N.G.P. College of Education, Coimbatore on January 10th 2012.
- Acted as a Judge for the event "Paper Presentation" in the intercollegiate function in D.J.Academy for Managerial Excellence, Coimbatore on 02nd Feb 2012.
- Acted as a Judge for the event Tamil Debate of the function Tamil Vizha at Dr. N.G.P. College of Education, Coimbatore on January 10th 2012.
- Delivered a Lecture on "How to Enhance Your Logic Skills" to the Computer Science Students of Dr.SNS.Rajalakshmi College of Arts and Science, Saravanampatti, Coimbatore on 12th Oct 2011.
- Delivered a Lecture on "Why Save Command" to the Non-Academic Staff of Dr.N.G.P.Arts and Science College on 11th Dec 2010.
- Acted as a Judge for the event "Poster Presentation" in the one day students meet of the Computer Application Department of Dr.N.G.P.Arts and Science College in the on Feb 10th 2010.
- Delivered a Lecture on "Research Directions" to the staff of Computer Science Department of Dr.N.G.P.Arts and Science College on 12th Oct 2009.
- Delivered a Lecture on 'Data Mining and E-Commerce' to IT- Department, LMW –Unit-1(Lakshmi Machine Works), Periyanaikenpalayam, Coimbatore on 12th Oct 2006.
- Delivered a Lecture on 'C-Programming Language" to MCA Students of SAN Info School of International, K.K.Chavadi, Coimbatore on 10th Aug 2006.

Delivered a Lecture on 'Basics of Analytical and Logic Skills' to the students attended the TANCET coaching classes during the year 2005 at D.J.Academy for Managerial Excellence, Coimbatore.

Faculty Development Programs Attended

Course	University/Institute	Subject	Period
Orientation	Bharathiar University	Computer Science	16.12.2016 to
Programme			12.01.2017
Refresher	Kerala University	Computer Science	07.02.2018 to
			27.02.2018
Refresher	Madurai Kamaraj	Computer Science	13.02.2020 to
	University		26.02.2020
Refresher	Managing Online	Computer Science	13-12-2021 to
	Classes and co-		27-12-2021
	creating MOOCS10.0		

Academic Activities :

i) Subject Handled : C,C++, JAVA, Computer Networks,

RDBMS, MIS, OS, Data Mining, OOAD

ii) Class Advisor : 2019-21 PG Chikkann Gove Arts

: -

:2015-18 UG Chikkanna Govt Arts

:2022-25 UG Chikkanna Govt Arts

iii) Special Coaching

iv) Student Community Beneficial Activities :

v) Co-curricular and extra curricular activities: -

Professional Activities

i) Reviewer :-

a. Board of Studies/UR1. Acted as a member for board of

studies of UG Computer Application

Department of Sree Saraswathi Thyagaraja

College, Pollachi from 2014-16 2. Acted as Bharathiar University

Representative (UR) for Apr/May 2008 Examination at Gruvayurappan Institute of

Mangement, Coimbatore

ii) Examiner/Scrutiny

 Acted as Practical External examiner for various colleges.

2. Acted as Question Paper Scrutiny member of Periyar University, Salem

iii) Senate/Syndicate

: -

National/International Collaborators

: -

Annexure -I

Research Papers

1. "A Dynamic Multi-class Neupper Classification for Multiple Crop Yield Prediction" International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-7, Issue-6, March 2019.

https://www.ijrte.org/wp-content/uploads/papers/v7i6/F2713037619.pdf

2. "Survey: Understanding Soil Structure and its Characteristics for Agricultural Data Mining", International Journal of Engineering Science and Computing (IJESC) ISSN: 2321-3361Volume 9 Issue No. 7 July 2019.

 $\frac{http://ijesc.org/upload/9e6056699ca56ed0ae9490870d9213d1.Survey\%20\%20Un}{derstanding\%20Soil\%20Structure\%20and\%20its\%20Characteristics\%20for\%20Agricult}{ural\%20Data\%20Mining.pdf}$

3. "Applications of Multiclass DNeupper Classifier Using Sample Soil Dataset of Tirupur District for Predicting Multiple Crop Yields", International Journal of Innovative Science, Engineering & Technology, Vol. 6 Issue 8, August 2019.

http://ijiset.com/vol6/v6s8/IJISET_V6_I8_24.pdf

4. "Algorithms associated with Streaming Data Problems," International Journal of Applied Engineering Research (IJAER), Vol. 14, No.9, May-2019, pp.2238-2243., ISSN: 0973-4562.

https://www.ripublication.com/ijaer19/ijaerv14n9_27.pdf

- 5. "Faster Query Response for Streaming Data using Probabilistic Data Storage Model," International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 8, Issue 7, May-2019, pp.1556-1560, ISSN:2278-3075.
- 6. Identifying Oversampling and under sampling of Data-A Practical Approach Using R "International Journal of Computer Sciences and Engineering" ISSN 2347-2693 May 2019 DOI 10.26438/ijcse/v7i5.890896
- 7. Multiclass Data Imbalance Oversampling Techniques (MuDiot) and Random Selection of Features" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN 2278-3075, Oct 2019.

https://www.ijitee.org/wp-content/uploads/papers/v8i12/J92750881019.pdf

10. "Performance of Data Mining Classifiers on Kolb's Learning Style Inventory (KLSI)" Indian Journal of Science and Technology, Vol 12(23), ISSN (Online): 0974-5645 DOI: 10.17485/ijst/2019/v12i23/145370, June 2019

DOI: <u>10.17485/ijst/2019/v12i23/145370</u>

11." A Survey on Data Security in CSP using Cryptographic Key" International Journal of Engineering Science and Computing, March 2019 Volume 9 Issue No.3

http://ijesc.org/upload/bb357da283ef213c5d5768f12c703e59.A%20Survey%20on%20Data%20Security%20in%20CSP%20using%20Cryptographic%20Key%20(1).pdf

12. "Extensive analysis of techniques in data streams" International Journal of Engineering & Technology (IJET), Vol 7, No 4, 2018, pp.5673-5678, ISSN 2227-524X.

DOI: 10.14419/ijet.v7i4.14224

13. Survey on Classification Techniques for Soil Data Prediction to Better Yielding of Crops", "International Journal of Computer Sciences and Engineering E-ISSN: 2347-2693 Vol.5, Issue 1, Jan 2018".

DOI: 10.26438/ijcse/v6i1.203206

https://www.ijcseonline.org/pdf_paper_view.php?paper_id=1659&35-

IJCSE-02832.pdf

14. "An Optimized Feature Selection and Classification of Soil Parameters for Crop Yield Prediction", International Journal for Research in Engineering Application & Management (IJREAM) ISSN: 2454-9150 Vol-04, Issue-05, Aug 2018

http://ijream.org/papers/IJREAMV04I05041131.pdf

15. "Crop Yield Prediction From Soil Parameters Through Neupper Rule Established Algorithm" has been accepted for publication in International Journal of Engineering and Technology(UAE), ISSN-2227-524X Volume 7, Issue no:3.5 (2018).

DOI: 10.14419/ijet.v7i3.34.19587

16. "A Dynamic neupper classification-based crop yield prediction using class imbalanced optimal soil parameters", Journal of Advanced Research in Dynamical and Control Systems Vol. 10, 10-Special Issue, 2018.

http://jardcs.org/backissues/abstract.php?archiveid=6791

17. "Review Of Mining Techniques Used In The Log Data Processing Based On Hadoop And Cloud Computing Environment" International Journal of Advanced Research in Computer Science Volume 9, No. 1, ISSN No. 0976-5697 ,January-February 2018

DOI: 10.26483/ijarcs.v9i1.5459

http://ijarcs.info/index.php/Ijarcs/article/view/5459/4568

18. "Clustering Algorithms – A Literature Review" International Journal of Computer Sciences and Engineering (JCSE), Vol.5, Issue-10, Oct-2017, pp. 302-306, E-ISSN: 2347-2693.

https://www.ijcseonline.org/pub_paper/49-IJCSE-02462.pdf

19. "Big Data Algorithms – Literature Review" International Journal of Computer Science, Information Technology & Security (IJCSITS), Vol.7, No.3, May-June 2017, pp. 39-45, ISSN: 2249-9555.

https://www.ijcseonline.org/pdf paper view.php?paper id=1519&49-IJCSE-02462.pdf

20. "Frequent pattern mining of web log files working principles",IJCA(International journal of Computer applications)-Jan 2017,volume 157,Issue 3(0975-8887)

https://www.ijcaonline.org/archives/volume157/number3/suguna-2017-ijca-912642.pdf

21. "A Literature Survey on Recommender System Algorithms and its Applications in Health Care using Big Data Analytics" International Journal of Innovations & Advancement in Computer Science, ISSN 2347 – 8616, Aug 2017.

http://academicscience.co.in/admin/resources/project/paper/f201708081502181638.pdf

22. "Application of Classification Algorithms for Disease Diagnosis Using Big Data Analytics" International Journal of Engineering Research in Computer Science and Engineering, ISSN 2394-2320, Dec 2017.

https://www.technoarete.org/common_abstract/pdf/IJERCSE/v4/i12/Ext_37695.pdf

- 23. "A Survey on Anonymization and Randomization based Privacy Preserving Data Mining Algorithms". International Journal of Innovations & Advancement in Computer Science IJIACS ISSN 2347 8616 Volume 6, Issue 7 July 2017. http://academicscience.co.in/admin/resources/project/paper/f201707191500438559.pdf
- 24. "Clustering Approaches used in Educational Data Mining A Research Travelogue" International Journal of Innovations & Advancement in Computer Science IJIACS ISSN 2347 8616 Volume 6, Issue 7 July 2017 http://academicscience.co.in/admin/resources/project/paper/f201707141499997298.pdf
- 25. "An efficient mining technique for web cache of server log files", IJAET(International Journal of Advances in Engineering and Technology)-december 2016, volume 9, Issue 6, ISSN 22311963(634-6397.
- 26. "ID3 Classifier on Pupils' Status Prediction" published in an International Journal of Computer Applications Volume 57-No3,pp 14-18, November 2012. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.648.5982&rep=rep1&type=pdf
- 27. "Learning and Optimizing the Features with Genetic Algorithms" published in an International Journal of Computer Applications Volume 9– No.6, pp 1-6 2010.
- 28. "Classification Techniques in Education Domain" published in an International Journal on Computer Science and Engineering Vol. 02, No. 05, pp 1679-1684, 2010.
- 29. "Predicting Academic Performance Using Genetic Algorithm and SVM Classifier "International Journal of Data Mining Knowledge Engineering Print: ISSN 0974 9683 & Online: ISSN 0974 9578 Oct 2010 DOI: DMKE102010005
- 30. "Feature Selection with Naïve Bayes Classifier" published in CiiT International Journal of Data Mining and Knowledge Engineering, Vol 1, No.6, pp 275-281,2009.

Annexure -II

National and international conferences

Presented

- 1. "Aiming the Right Students using Data Mining Techniques" in the UGC Sponsored National Conference on "Computer Science and Informatics", at St.Joseph's College, 2005 Trichy.
- 2. "An Intelligent Prefetching Web Proxy Server for Dynamic Pages using Association Rules" in the National Conference on "Emerging Intelligent Information Technologies" at Karpagam College of Engineering, 2005, Coimbatore.
- 3. "Effective Data Mining: Integrating Association Rules and Regression Analysis" in the National Conference at PSG College of Technology, 2005, Coimbatore.
- 4. "E-Commerce and Data Mining: an Integral Approach with Architecture and Challenges" in an International Conference on Global Manufacturing and Innovation at CIT College, 2006, Coimbatore.
- 5. "Predicting Student Performance using Classification Techniques" SPIT-IEEE Colloquium and International Conference, Vol.5, pp- 83-87, 2008, Mumbai, India.
- 6. "Machine Learning Techniques in Performance Prediction" in the national Conference on Soft Computing and Intelligent System Page 88-92, BCET, 2008, Karaikal, India.
- 7. "A survey on Prediction Learning Techniques" in the Second National Conference on Advanced Computing, pp 214-219, 2010 at D.J.Academy for Managerial Excellence, Coimbatore, India.
- 8. "A Hybrid Approach for Performance Evaluation" in the UGC Sponsored National Conference on "Data Warehousing and Data Mining" at Gobi Arts and Science College, 2011, Gobichettipalayam.
- 9. "Educational Process using Data Mining" in the conference proceeding of Emerging Trends in Computing, pp 343-347, 2011 at Sri Ramakrishna Engineering College, Coimbatore, India.
- 10. "Safety measures for Oil & Gas industry using Big Data analytics." Proceedings of the National Conference on Advanced Computing (NCAC), Coimbatore, 22-23 Sept. 2016, pp. 497–501.
- 11. "A Study on Recommender Systems using Big data Analytics". National Conference on Advanced Computing held at Bharathiar University, ISBN 9789386 176271, Sep 2016.
- 12. "Review literature on Data Mining Techniques in Agriculture" paper presented & published in National Conference on Green Computing organized sep 22, 2018, NGM College, Pollachi.
- 13. "An imbalanced soil data classification with optimized features for crop yield prediction", International conference Artificial Intelligence, Smart Grid and Smart City Applications at PSG College of Technology on January 2019.
- 14. Malicious Website Detection Using Probabilistic Data Structure Bloom Filter" Proceedings of the Third International Conference on Computing Methodologies and Communication (ICCMC), Erode, 27-29March 2019, pp.311-316, IEEE Xplore Part Number: CFP19K25-ART; ISBN: 978-1-5386-7808-4

- 15. "Efficient Count-Min Sketch to solve Frequent Items problem" Proceedings of the First International Conference on Electrical and Computer Technologies 2019 (ICAECT), Coimbatore, 26-27 April 2019, pp. 1120-1125.
- 16. Review of crop yield prediction using ANN classifier" Third National Conference on Advanced Computing (NCAC-2020) organized by the Department of Computer Science, Bharathiar University, Coimbatore on January 2020.

Participated

- 1. A Conference on "BPO, Bio-Informatics, Open Source and E-Governance" at Government College of Technology, Coimbatore during 21st & 22nd Feb 2003.
- 2. A National Seminar on "Recent Trends in Computer Applications" in Erode College during 13th &14th Sep 2003.
- 3. A National Level Seminar on "Growing Trends in Data Mining" in Sri Ramakrishna Women's College held on 24th Sep 2003.
- 4. Attended a National Conference on "Issues in Higher Education" organized by the Association of Principals of Colleges-Bharathiar University and UGC-Academic Staff College –Bharathiar University at Dr.N.G.P.Arts and Science College on 29th Oct 2010.
- 5. "ICT and Effective Teaching" in the NAAC Sponsored National Level Seminar in Dr.SNS Rajalakshmi College of Arts and Science, Saravanampatti, Coimbatore during 18th &19th Mar 2011.
- 6. Attended a NAAC Sponsored State Level Seminar on "Achieving Academic Excellence through Internal Quality Assurance Cell(IQAC) in Dr.N.G.P.Arts and Science College, Coimbatore during 9th&10th Dec 2011.
- 7. Attended a webinar on "How to improve teaching skills" on 4th June 2020 at MLR Institute of Technology.
- 8.Attended a webinar on "Open Source Video Conferencing tool" on 22^{nd} June 2020 at Gobi Arts and Science College.
- 9.Attended a National Webinar on "Intellectual Property Rights(IPR) on 24th June 2020 at Government College for Men ,Kurnool.
- 10. Attended a webinar on "Mentoring the Students towards facing challenges during covid'19 and beyond" on 26^{th} June 2020 at Dr.SNS Rajalakshmi College of Arts and Science, Coimbatore.
- 11. Attended a webinar on "How to become a Full Stack Developer" on 28^{th} June 2020 at Gobi Arts and Science College.
- 12. Participated on the online super session on "Future of Education" 18th June 2020 conducted by ICT Academy.