



**Prof.(Dr). M.Balamurugan**  
**Professor**

#### **Contact**

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**Academic Qualifications: M.Sc.,M.Phil.,Ph.D.**

**Teaching Experience: 25 Years**

**Research Experience: 17 Years**

#### **Additional Responsibilities**

1. Chair, School of Computer Science, Engineering & Applications
2. Director(i/c), Bharathidasan University Technology Park
3. Co-ordinator, Incubation and Technology Transfer Centre

#### **Areas of Research**

**Data Science, Cognitive Science**

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research Project	Ph.D.	10	03
	M.Phil.	20	00
	PG	20	10
	UG / Others	15	0

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
40	14	02	02	02

h-index	:	8
i10 index	:	5
Total Citations	:	262

## EXTERNAL FUNDING SCHEMES

Scheme	ICMR
Project title	Development of ICT based early warning COVID-19 surveillance model for the city of Trichy, Tamil Nadu
Sanctioned Fund	Rs.5,25,520
Sanction No	CTU/Cohert Study/17/10/21/2021/ECD
Duration	Feb.2022 – Feb 2023

## Patents

1. INTERNET OF SENSE
2. A SMART AND SEMI AUTOMATED SUSCEPTIBILITY TESTING DEVICE

## Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 08

## Events Participated

Conferences / Seminars / Workshops 15

Other Training Programs :03

## Membership in

### Professional Bodies

1. Life Member: IAENG
2. Life Member: CSTA
3. Member of Asian Science Society AS/114/17 [sep – 2017 – Aug -2018]

Academic Bodies (such as Board of Studies etc.,)

1. BoS member in different autonomous college

### Resource persons in various capacities

Number of Invited / Special Lectures delivered: 20

### Others

1. Articles published in Newspapers / Magazines : 01
2. No. of PhD Thesis evaluated : 20
3. No. of PhD Public Viva Voce Examination conducted : 06

### Recent Publications

1. Gopikha S and Balamurugan M(2023). Regularised Layerwise Weight Norm Based Skin Lesion Features Extraction and Classification. Computer Systems Science & Engineering DOI:10.32604/csse.2023.028609
2. Gopikha S and Balamurugan M(2022).Masking Based De Trop Noise Exclusion and Image Inpainting Instance Restoration. Springer Cham. <https://doi.org/10.1007/978-3-031-15556-7>
3. Gopikha S and Balamurugan M(2021). Asymmetric Skin Lesion Instance Detection And Foreground Patch Uprooting Based On Dseg-Net. Webology (ISSN: 1735-188X) (18) 5
4. Gopikha S and Balamurugan M(2021). Identification Of Multi-Class Skin Cancer Classification Using Relation Based Embedding Network With Few Shot Learning. Webology (ISSN: 1735-188X) (18) 6
5. R. Udendhran and M. Balamurugan( 2021).Towards secure deep learning architecture for smart farming-based applications Complex & Intelligent Systems Springer. 7:659-666
6. R. Udendhran , M. Balamurugan , A. Suresh and R. Varatharajan(2020). Enhancing image processing architecture using deep learning for embedded vision systems. Microprocessors and Microsystems Elsevier.
7. A. Nancy and Dr. M. Balamurugan (2019). Normalization of Alzheimer's Disease Data using Min-Max Method International Journal of Research and Analysis Reviews (IJRAR). ISSN (E): 23481269, ISSN (P): 2349-5138, Vol No: 6, Page No: 1094-1097
8. A Nancy, M Balamurugan and S Vijaykumar(2017).A brain EEG classification system for the mild cognitive impairment analysis.IEEE- 1-6.
9. Balamurugan M and Udendhran R(2019). An Effective Hybridized Classifier Integrated with Homomorphic Encryption to Enhance Big Data Security Europe Alliance Innovation and Springer Innovations in Communication and Computing - Springer, Cham Switzerland 978-3-030-19561-8
10. Suresh, Udendhran and Balamurugan M(2019). Hybridized neural network and decision tree based classifier for prognostic decision making in breast cancers Journal of Soft Computing- Springer Berlin
11. Suresh, Udendhran, Balamurugan and Varatharajan(2019). A Novel Internet of Things Framework Integrated with Real Time Monitoring for Intelligent Healthcare EnvironmentJournal of Medical Systems -Springer Nature Switzerland AG . <https://doi.org/10.1007/s10916-019-1302-9> 0148-5598
12. Udendhran R and Balamurugan M (2019). Demystification of Deep Learning-

13. Vijaykumar Selvam, Dr. M. Balamurugan(2019). Unique Sense: A Smart Computing Prototype 4. International Journal of Innovative Technology and Exploring Engineering (IJITEE)ISSN No: 2278-3075(8), 4772-4776
14. Vijaykumar S, Dr.M.Balamurugan, "Unique Sense: A Smart Computing Prototype 2", International Journal of Scientific Research in Computer Science and Engineering and Information Technology, Vol.3, Issue 3, ISSN: 2456-3307, 2018.
15. Nancy A, Dr.M.Balamurugan, and Vijaykumar S, "Alzheimer's Disease Diagnosis by Likelihood Lattice Classification Algorithm", International Journal of Pure and Applied Mathematics, Vol.118, No.7, 2018, ISSN: 1314-3395.
16. Dr.M.Balamurugan, E. Iyswarya, "Construction for Research Paper Selection Ontology using Protege", International Journal of Applied Engineering Research , Vol.13, No.9, ISSN: 6989-6993, 2018.
17. L. Visalatchi and Dr. M. Balamurugan, "Using Hyper Parameters in Evolutionary Clustering", International Journal of Pure and Applied Mathematics (IJPAM), Vol.116, Issue 21, ISSN (O): 1314-3395, ISSN (P): 1311-8080, Page No 499-508, 2017.
18. L. Visalatchi and Dr.M. Balamurugan," A Framework for the evolutionary clustering of dynamic heterogeneous information network based on Hadoop MapReduce", International Journal of Engineering and Technology (IJET), ISSN (Print): 2319-8613, ISSN (Online): 0975-4024, Nov-Dec 2017.
19. M. Balamurugan and R. Prasanka, "Radial Basis Function-Particle Swarm Optimization Algorithm for Feature Reduction (RBF-PSO)", International Journal of Advanced Research in Computer Science, Volume 8, No. 5, ISSN No. 0976-5697, May-June 2017.
20. A.Nancy, Dr. M. Balamurugan, and S. Vijaykumar, "A brain EEG classification system for the mild cognitive impairment analysis", IEEE Xplore, DOI: [10.1109/ ICACCS.2017.8014655](https://doi.org/10.1109/ICACCS.2017.8014655) , August 2017.
21. S. Vijaykumar and Dr. M. Balamurugan, "Smart Computing Trends Green Revolution", ASIAN SCIENCE, Vol.12, No.2, June –Dec 2017.
22. Dr.M. Balamurugan and E. Iyswarya, "A Trend Analysis of Information Retrieval Models", International Journal of Advanced Research in Computer Science, Vol.8, No.5, ISSN No: 0976-5697, PP. 531-534, May-June 2017.
23. L. Visalatchi and Dr. M. Balamurugan, "An Efficient Evolutionary Clustering Using Strengthened Density based Algorithm", International Journal of Advanced Research Trends in Engineering and Technology (IJARTET), Vol.3, Issue 20, ISSN (P): 2394-3777, ISSN (O): 2394-3785, April 2016.
24. L. Visalatchi and Dr. M. Balamurugan, "Self Constructing clusters in Dynamic heterogeneous multi typed network", IEEE Xplore, 2016.
25. R. Prasanka and M. Balamurugan "Comparison of Data Mining Techniques for Feature Reduction using Evolutionary Search". International Journal of Advanced Research Trends in Engineering and Technology (IJARTET) Vol. 3, Special Issue 20, ISSN 2394-3785.
26. A. Nancy, Dr. M. Balamurugan, S. Vijaykumar, "A Comparative Analysis of Cognitive Architecture", International Journal of Advanced Research Trends in Engineering and Technology (IJARTET), Vol.3, Special Issue 20, April 2016, Pg. 152-155, ISSN (P): 2394-3777, ISSN (O): 2394-3785

27. R. Prasanka and M. Balamurugan "The Comprehensive Analysis for Mining the Knowledge using Feature Reduction Techniques in Medical Data". A Review International Journal of Control Theory and Applications, ISSN-2229-6093, volume-8, issue-5, PP-2153-2160. (Scopus Indexed).
28. Dr. M. Balamurugan and P. Mathiazhagan, "Identifying the Core Phases in the Big Data and their Research Opportunities", International Journal of Innovative Computer Science and Engineering, Vol.2, Issue 4, PP. 16-20, ISSN: 2393-8528, Sep-Oct 2015.
29. Vijaykumar S, Saravanakumar S.G, M. Balamurugan, "Unique sense: smart computing prototype", Procedia Computer Science, Volume 50, 2015, Pages 223–228, doi:10.1016/j.procs.2015.04.056.
30. Vijaykumar S, Saravanakumar S, & Balamurugan M (2015), "Unique Sense: Smart Computing Prototype for Industry 4.0 Revolution with IOT and Big data Implementation Model", *Indian Journal of Science and Technology*, 8(35), doi:10.17485/ijst/2015/v8i35/86698.
31. Vijaykumar S, Dr. M. Balamurugan, Ranjani K, "Big Data: Hadoop Cluster Deployment on ARM Architecture", International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), Vol. 4, Special Issue 1, June 2015, ISSN 2278-1021 & 2319-5940.
32. M. Balamurugan, K. Viji, "Predicting Eligible Educator Category for Disability Student Welfare using Decision Tree Method", International Journal of Computer Applications (IJCA), 0975-8887, Doi: 10.5120/21117-3965, Vol.119, No.12, June 2015.
33. Dr.M. Balamurugan, S. Venkatesh, "Efficient Student Learning Analysis based on Q-learning Approach", International Journal of Advanced Research in Computer and Communication Engineering (IJRTCC), ISSN (O): 2278-1021, ISSN (P): 2319-5940, vol.4, Spl Issue.1, June 2015.
34. Santhini M, Dr. Balamurugan M, Govindaraj M "Collaborative Filtering Approach for Big Data Applications Based on Clustering", International Journal of Recent Research in Mathematics Computer Science and Information Technology Vol. 2, Issue 1, pp: (202-208)
35. S.J Gnanasoundhari and Dr. M. Balamurugan, Prediction of Myocardial Infarction Using Data Mining Techniques", CIIT, Vol 5, Issue 10, August 2014, ISSN 0974 – 9683
36. S.J Gnanasoundhari and Dr. M. Balamurugan, "Datamining Tool to analysis the Heart Disease", International journal of Computer Science and Mobile Applications, vol.2, issue 2, April-2014, pg.72-77.
37. Sangari and Dr.M.Balamurugan, "Precipitational Prognosis using Data Mining Techniques", International journal of Computer Science and Mobile Applications, vol.2, issue 2, April-2014, pg.84-88 ISSN:2321-8363.
38. G.Visalatchi and Dr.M.Balamurugan, "Prediction of Diabetes Mellitus using Data Mining Techniques", International journal of Computer Science and Mobile Applications, vol.2, issue 4, April-2014, pg.100-105 88 ISSN:2321-8363.
39. K.Lakshmipriya and Dr.M.Balamurugan, "Hybrid Intrusion Detection Using Data Mining Techniques", IJARCS, Vol2, Issue 5, pg.45-51 April 2014, ISSN:0976-5697.
40. Mallika amd Balamurugan M, "A Sequential Approach in Segmentation and Recognition Techniques in Image Based E-mail", International Journal of Computer Technology and Applications (IJCTA). Vol. 9, no. 3, page. 152-159, June 2018
41. Mallika amd Balamurugan M, "Shape Based Feature Extraction in Detection of Image Email", Journal of Physics: Conference Series (JPCS). Dec 2018.