

C.Balasubramanian

Professor
Department of CSE
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Summary

- Earned PhD degree in Computer Science and Engineering and intensive experience in the field of Data Mining, Hardware/Software Co-Design, and Optimization Techniques.
- Competent in synthesis and implementation of Data Mining for technological applications
- Succeeded in multi-disciplinary projects; planning and execution, facilities co-ordination, report preparation, procurement of hardware equipment's and relevant software
- Effective written and oral communication skills evident from 22 peer reviewed journal publications, 07 conference presentations and invited lecturers
- Successful in competitive fellowship and research mentoring experience

Education

Anna University (*Part Time*)

PhD **Data Mining** **03/2011**

Thesis: An Innovative Temporal Data Mining

Annamalai University

Master **M.E. (Computer Science and Engineering)** **05/2005**

Madurai Kamaraj University

Bachelor **B.E. (Computer Science and Engineering)** **04/2003**

Teaching Experience

P.S.R Engineering college Professor June 2018 – Present

- Conducting lectures and preparing the material for graduate and undergraduate students
- Providing a guidance to the students for developing their career as well as making them familiar with different career opportunities
- Mentoring B.E. (CSE) and M.E. students to design and execute the project works
- Motivating doctoral scholars for their research, publications and fellowship preparation
- Training the doctoral scholars in research methodologies and advanced research techniques for inter-disciplinary research works

P.S.R.R college of Engineering for Women Professor June 2013 – May 2018

- Conducting lectures and preparing the material for graduate and undergraduate students
- Providing a guidance to the students for developing their career as well as making them familiar with different career opportunities
- Mentoring B.E. (CSE) and M.E. students to design and execute the project works
- Motivating doctoral scholars for their research, publications and fellowship preparation

- Training the doctoral scholars in research methodologies and advanced research techniques for inter-disciplinary research works

P.S.R.R college of Engineering for Women Associate Professor Apr. 2010 – May 2013

- Guiding B.E. and M.E. students for project work in VANET applications
- Helping the professor for creating the material for students

K.S.R. College of Technology Senior Lecturer July. 2009 – Apr. 2010

- Conducting lectures, preparing teaching material and utilizing it for the progress of students
- Academic advising of students and supervision of B.E. projects and teaching assistants
- Participation in college committees and activities

K.S.R. College of Technology Lecturer May 2005 – Jun. 2009

- Planning lessons and assignments, conducting seminars, lead class discussions & lab sessions
- Analyzing the material for the students and providing them guidance on various aspects of the subjects
- Utilizing the skills and qualities by assigning work to the students

Research Experience

Research – Citation Index :

https://scholar.google.com/citations?hl=en&user=5EM0pVIAAAAJ&view_op=list_works&sortby=pubdate

Citation indices	All	Since 2015
<u>Citations</u>	125	112
<u>h-index</u>	5	5
<u>i10-index</u>	2	2

Web of Science Publication metrics:

PUBLICATIONS IN WEB OF SCIENCE	SUM OF TIMES CITED	H-INDEX	AVERAGE CITATIONS PER ITEM	AVERAGE CITATIONS PER YEAR
16	24	1 [®]	1.5	4.8

(b) PG Dissertations/ Ph. D. thesis guided/ co-guided:

(Anna University-Chennai Recognized supervisor Old Ref.no: 24.04.01, New Ref.No:24400321)

(i)	No. of PG Dissertations guided	:	17
(ii)	No. of Ph.D. Viva Voce Completed	:	01
(ii)	No. of Ph. D. guide	:	04
(iii)	No. of Ph. D. Co-guided (Attach the titles of the PG/ Ph.D.'s guided	:	01

Project Management Skills

- Strong organizational abilities in planning and execution of experiments, budget management, facilities co-ordination, procurement of hardware equipment's and relevant software
- Capacity to complete planned objectives within set deadlines and budgetary commitments
- Effective in mentoring students and coordinating teamwork
- Constantly developing communication with national and international network of colleagues.

Professional Activities

- ASDF international (M 9355505200402558)
- Life time Member of ISTE (**MISTE- LM4060**).
- Life time Member of CSI (**MCSI- LM1127667**)
- Life time Member of International Association of Engineers (**MIAENG- M107299**).
- Life time Member of IACSIT(**MIACSIT- M80334172**).
- Member of **IEEE** Computer Society (92369281)

Journal/Book Reviewer

1. Journal of Medical System (Springer)
2. IACSIT journals.
3. Member of Scientific and Technical Committee & Editorial Review Board.

Professional Interests

Teaching

- Data Mining- Grid and Cloud Computing- Computer Network Management
- Database Management systems- Data Warehousing
- Software Project Management - Information Security
- Computer Architecture
- Computer Networks

Research

Interdisciplinary Research with exploit of

- Data Mining- VANET
- Wireless Ad hoc and Sensor Networks

Publications – Research Papers

1. **Balasubramanian. C, Venkatesh, R & Kaliappan, M** “Development of Big Data Predictive Analytics Model for Disease Prediction using Machine learning Technique”, has been published in the Journal of medical systems doi.org/10.1007/s10916-019-1398-y, 05 July 2019.
2. **Balasubramanian. C, Venkatesh, R & Kaliappan, M** “HFDS: Heterogeneous hybridized fuzzy-based Dijkstra's multitask scheduling in WSN ”, has been published in the Journal of Concurrency and Computation, doi.org/ 10.1002/cpe.5354, 10 June 2019.
3. Balasubramanian. C, Venkatesh, R & Kaliappan, M “An approach by adopting multi-objective clustering and data collection along with node sleep scheduling for energy efficient and delay aware WSN ”, has been published in the Journal of Peer-to-Peer Networking and Applications, 10.1007/s12083-019-00779-3, 10 June 2019.

4. **C. Balasubramanian**, J.Veneeswari, R. Kalaivani, “Classification and Segmentation of Leukocytes in Microscopic Blood Smear Images Using K-Means And SVM” has been published in the Journal of Journal of Emerging Technologies and Innovative Research (JETIR): 2349-5162 (2019) vol 6 issue 2 pp.no 200-206.
5. **C. Balasubramanian**, B. Guru Prakash, R. Sukumar, “A Swarm Intelligence Based Clustering Technique with Scheduling for the Amelioration of Lifetime in Sensor Networks” has been published in the Journal of International Journal of Wireless Personal Communications 103(4): 3189-3207 (2018)
6. **BalaSubramanian C** ,R.Manju, P.Subbalakshmi “A Proficient System For Brain Lesion Escalation Detection and Classification in MR Images” has been published in the Journal of International Journal of Innovative Research in Computer and Communication engineering, (2017), Vol 5, Special Issue-1,PP.No. 15-25
7. **C.Balasubramanian**,A.Shenbagarajan, V.Ramalingam, S.Palanivel “MRI brain image analysis for tumour diagnosis using hybrid MB-MLM pattern classification technique” has been published in the Journal Biomedical Research,(2016)Special Issue,p.pno.S191 –S203, (IF 0.226)
8. **BalaSubramanian.C**, R.Ramalakshmi, S.Subash Prabhu ” Detection of Compromised Nodes in Wireless Sensor Networks using Gpsr Protocol and Iterative Filtering Algorithm” has been published in
9. **BalaSubramanian C** ,J.Veneeswari“An urban road traffic with the dedicated FUZZY control system in VANET” has been published in the Journal ARPJ Journal of Engineering and Applied Sciences, (2016), Vol 11, Issue-2,PP.No. 1-8(IF 0.765)
10. **C.Balasubramanian**,A.Shenbagarajan, V.Ramalingam, S.Palanivel “Tumor Diagnosis in MRI Brain Image using ACM Segmentation and ANN-LM Classification Techniques” has been published in the Journal of Indian Journal of Science and Technology,(2016)Vol-9,issue-1,p.pno.1–12, (IF 0.226)
11. **Bala Subramanian C** , Renukadevi and Angelin Nithya Devi M “ A RELIABLE APPLICATION LEVEL BROADCASTING PROTOCOL FOR VANET” has been published in the journal of Applied Engineering Research,(2015),vol.10,pp.no.317-322 (IF 0.13)
12. **BalaSubramanian.C**,Beuladevi.C and Anglin Nithya devi.M” TRAFFIC MONITORING BY DBF AND TOME PROTOCOL IN VANET” has been published in the journal of Applied Engineering Research,(2015),vol.10,pp.no.292-297 (IF 0.13).
13. **C.Balasubramanian**,K.Vijailakshmi“A Hybrid Privacy Preserving Scheme for Hotspots in Nested NEMO Based VANETs” has been published in the journal of Applied Mechanics and Materials scientific.net,vol.573(2014),pp.no.605-611 (IF 0.13)
14. **C.Balasubramanian**,S.Geetha “Enhancing E-Payment Security through Biometric Based Personal Authentication Using Steganography Scheme–B-PASS”, Communications in Computer and Information Science(Springer) Volume 420, 2014, pp 461-472 (IF 0.14)
15. **C.Balasubramanian**,S.Geetha,S.Selvakumar “High payload image steganography with reduced distortion using octonary pixel pairing scheme” has been published in the Journal of Multimedia Tools and Applications (Springer),Vol.3, November 2013 (IF 1.05)
16. **C.Balasubramanian**,K.G.Srinivasagan “AMDS: Sentence Extraction Based Proficient Framework for Multi-Document Summarization” has been published in the Advances in Intelligent Systems Research, doi: 10.2991, Atlantis Press, June 2013 (IF 0.621)
17. **C.Balasubramanian**,K.ramasamy,K.Ramkrishnan “Automatic Segmentation of Brain Tumor from MR Image Using Region Growing Technique”has been published in the Journal of Pattern Recognition and image processing,DOI:210.37.44.252:8002, 2013 (IF 0.165)
18. **C.Balasubramanian**,A.Shenbagarajan,P.Subbalakshmi “An Innovative approach of RPC for Secure

Transmission of Gray Scale Images” has been published in the International Journal of Soft Computing, Vol.7 (4) ,ppno.164-168,2012 (IF 0.496)

15. **C.Balasubramanian**,A.Shenbagarajan “Image Restoration:- Design of Non Linear Filter (LR)” has been published in the Journal of Image and Video Processing,Vol.3,November,p.pno.511-517,2012 (IF 0.409)

16. **C.Balasubramanian**,K.Duraiswamy “An Application of Bayesian classification to IntervalEncoded Temporal mining with prioritized items” has been published in the International Journal of Computer Science and Information Security, Vol.3, No.1, July, 2009. (IF 0.432)

17. **C.Balasubramanian**,K.Duraiswamy “A Fuzzy Mining Approach for Automatic assignment and Encoded Temporal Database with Lower Complexities of Time” has been published in the International Journal of Algorithms and computational technology, Multiscience publication press, UK, Vol.4, December, pp.no.425-441,2010.

18. **C.Balasubramanian**,K.Duraiswamy“An approach for fuzzy temporal mining and identification of interval based fluctuating rules” has been published in the International journal on Emerging technology and application in engineering techniques and science, vol.1, no.1, January 2009, pp.no.122-129.

19. **C.Balasubramanian**, K.Duraiswamy “An Encoded Temporal Mining Method for Frequent Itemset Identification Based on Applicant’s Perception” has been published in the international Journal of Engineering Research and Industrial Application, Vol.2, No.4, July, 2009.

20. **C.Balasubramanian**, K.Duraiswamy “Efficient Application of Association Rule Mining Algorithms on an Encoded Temporal Database with Weighted Items” has been published in the International Journal of Computer Science and Engineering System, Vol.3, No.4 (Oct), 2009.

21. **C.Balasubramanian**,K.Duraiswamy “A Temporal Mining Method for an Interval Encoded Temporal Database with Prioritized Items” has been published in the International Journal of Recent Trends in Engineering, Vol.1, November, pp.no.161-167, 2009.

22.**C.Balasubramanian**,K.Duraiswamy “Identifying interesting item sets for positive and negative association rule mining on an encoded temporal database” has been published in the Journal on software engineering, vol.2, no.4, April-June 2008, pp.no.41-47.

Publications – Conference Presentations

1. C.Balasubramanian, S. Abijah Roseline; A. D. Sasisri; S. Geetha; “Towards Efficient Malware Detection and Classification using Multilayered Random Forest Ensemble Technique” Published in International Carnahan Conference on Security Technology (ICCST) on October 01, 2019

2. **C.Balasubramanian**, K.Annapoorani “Measurement of Stress By Calculating Heartbeat Rate Using Video Magnification Method” Proceedings of SARC International Conference,26 arch, 2017, New Delhi, India, ISBN: 978 -93-86291-639.

3. **BalaSubramanian C**, P.Suganthi, K.Kala “Using k-means clustering algorithm for handling data precision” has been Published in Computing Technologies and Intelligent Data Engineering (ICCTIDE) pages1-6, 2016.

4. **BalaSubramanian C**, S.Suganya, G.Muthumari “Propitiating behavioral variability for mouse dynamics using dimensionality reduction based approach” has been Published in Computing Technologies and Intelligent Data Engineering (ICCTIDE) , pages1-6

5. **C.Balasubramanian**, Kalaivani “Extraction of lung lobes from CT scans by identifying incomplete fissure based on fissure, vessels and bronchi” IEEE International Conference on Communications and Signal Processing (ICCSP),

DOI:10.1109/ICCSP.2014.6950071,2014.

6. **C.Balasubramanian**,K.Duraiswamy “A Fuzzy Mining Approach for an Encoded Temporal Database with over Complexities of Time and Computation” Second IEEE International Conference on Computer Science and Information Technology, IEEE Press, Vol.01, pp.no. 8-11, August 2009, Beijing, China.

7. **C.Balasubramanian**, K.Duraiswamy “Fuzzy approach to weighted temporal mining with reduced time complexity” has been published in the First International conference on SEEC-08, (Kingston University, UK,) Cochin Vol.1, Sep, 2008, pp.no. 111-119.

Invited Talks

- One day Guest Lecture on “**Recent Trends in Data Mining and its Application**” at Kalasalingam Institute of Technology 19/08/2011
- Invited as **Judge** for National Level Technical Symposium **Kalasalingam Institute of Technology, Krishnankoil** 3/10/2011
- Invited as Chief Guest and Delivered a topic on “**WOMENS EMPOWERMENT IN EDUCATION**” **P.S.R.College of Education** 6/2/2012
- **Invited as Chief Guest and Chief Editorial Member** for IEEE Conference **Syed Ammal Engineering College, Ramanathapuram** 24/8/2012
- Invited to deliver Guest Lecture on “Data mining Issues” Kalasalingam Institute of Technology, Krishnankoil 17/9/2012
- Invited as **Judge** for National Level Technical Symposium **INNOVACE 2K15 . Sri Sowdambika College of Engineering, Aruppukottai** 21/08/2015
- One day Guest Lecture on “Data Mining and Techniques” at Sardar Raja Engg college 2/3/2015

National Symposium/Workshop Organized

Workshop

- Three Day Faculty Training Program (01/07/2010 to 03/07/2010)
- One day Seminar on “**RECENT TECHNOLOGIES on INFORMATION and EMBEDDED SYSTEM**” (19/7/2010).
- One day Seminar on “**An Overview of Industry need**” (13/6/2011)
- One day **Faculty Orientation Programme** (20/6/2011)
- Four days’ Workshop on “**Competency Development Using Modern Teaching Methodologies**” (25/7/2011 to 28/7/2011).
- Two months Non Formal Course on “**Hardware and Networking**” for Final year CSE & IT Students 2008-2012 batch (18/7/2011 to 31/8/2011)
- Invited as **Judge** for National Level Technical Symposium (3/10/2011)
- Employability Skills for ICTACT (20/10/2011)
- Two Day National level Conference on “**National Conference on Recent Trends in Electronics, Electronics and computer Science and Engineering**” – NCRTE₂C₂-2k12 (14/03/2012 &15/03/2012)
- “**DALE CARNEGIE TRAINING**” Workshop on “**HIGH IMPACT TEACHING SKILLS**” (24/4/2012 & 25/4/2012)
- Five Day workshop “**MISSION 10X**” (24/4/2012 To 28/4/2012)
- Four Day Faculty Development Programme on “**MODERN TEACHING METHODOLOGIES**

AND COMPETENCY” (2/6/2012 To 5/6/2012)

- One Day National Level Seminar on **“HAPTIC TECHNOLOGY”** (1/9/2012)
- CSIR Sponsored Two days National Level Workshop On **"Advancements in Brain Image Analysis towards Research"** (1st & 2nd Mar,2013)
- Three Days Faculty Development Programme on **“IBM Rational SEED”** (12/8/2013 to 14/8/2013)
- Three Days Faculty Development Programme on **“HOW TO DO A GOOD RESEARCH”** (23/01/2014 To 25/01/2014).
- One day Guest Lecture on **“Android App Development”** (20/09/2014)
- One day Guest Lecture **“Core JAVA”** (16/10/2014)
- One day Guest Lecture on **“Solution in the filed of internet of things”** (09/03/2015)
- One day Guest Lecture on **“Big data and HADOOP”** (19/09/2015)
- One day International seminar on **”Human Resource Development”** (06/09/2016)
- Two days International Conference on **”Innovation in Science , technology and Management towards sustainability”** (10/11/2017 &11/11/2017)
- One week quality improvement program on **“Instructional design and Delivery system”** (6/8/2018 to 11/8/2018)
- Two days International Conference on **”Recent Trends in Engineering Education”** (5/10/2018 &6/10/2018)
- Two day faculty Development Program on **“Research Methodologies”** (23&24/11/2018)
- One Day Guest Lecture on **”Exploiting Small World Problems in Social IoT”**(22/1/2019)

National Workshop/Seminar/SDP/FDP Attended

- Training and Placement Heads Conclave on **“Recruitment Trends and Preparing Students for Employability”** 27/09/2011
- Participated in the **21th Edition of Bride 2015-Madurai** 28/10/2015
- Participated one day Sensitization program on **Revised NAAC Accreditation Framework** 29/12/2018