Faculty Vitae

1. Name : **Dr.Sumathy Eswaran**

2. Education
- 2013 Ph.D , Computer Science and Engineering, Vels University , India
- 1990 M.Tech (Computer Science) , Jawaharlal Nehru Technological University, Hyderabad, India
- 1984 A.M.I.E., The Institution of Engineers India
- 1979 Diploma in Electronics and Communications Engineering, Board of Technical Education , Tamilnadu, India

3. Academic experience
- 2005 –till date , Dr. M.G.R. Educational and Research Institute University , Prof & Dean, Department of Computer Science and Engineering Member Academic Staff College, Member Academic Council, Chairman – Board of Studies etc
- 2004 -2005 , S.A. Engineering College, Chennai, Sr.Lecturer

4. Non-academic experience
- Dec 86 - Jun 95, M/s.OMC Computers Limited, Regional Customer Engineering Manager
  - Technical Support to Systems and Peripherals Maintenance, Cost Centre Head, Vendor Development, Technical Training to new Recruits, *Specialist in SGI IRIS Workstations, CAD & EDP systems, Testing and Repair Centre Activity*
- June 81 - Dec 86, M/S. Electronics Corporation of India Limited, Hyderabad, India. Training, Testing, Installation and Maintenance of **Mainframe Computer SYSTEM 332** at client locations like Indian Space Research Oganisation, South Central Railway, SV University, Department of Atomic Energy etc.
- Jun 79 - Jun 81, M/s. Industrial Electronics Corporation, Madurai, Production cum Development Assistant, Testing and Development of Digital meters and instruments

5. Certifications or professional registrations
- Cambridge International Certificate for Teachers and Trainers -   Professional Level
- IBM Rational Functional Tester (RFT) Certification
- Microsoft Certified Technical Analyst (MCTA) – Software   Development Fundamentals

6. Current membership in professional organizations

IAENG (LM 106731), ACM – CSTA
IET (1100354592),IE(I) (AM 52970)
CSI(F8001723), British Council
IEEE-CS (90846276 Affiliate)
ACM Digital Library (Cno 6974778)

7. Honors and awards

1. **Holographic Image Processing for Anabond Stress Analysis – MATLAB** (IMAGE PROCESSTNG SOFTWARE FOR HYBRID HOLOGRAPHIC SYSTEMS) development work awarded 2017
2. Receipient of IBM TGMC 2013 Mentor Award
3. As **SPOC –IBM** for the university , won "**Top 30 performing Colleges award** " from IBM in the TGMC National Software solutions development competition for two consecutive years **TGMC 2010 and TGMC 2011**.
4. 2014 – Sir CV Raman Research Award by Dr. M.G.R. Educational and Research Institute University
5. 2012 - IBM Master the Mainframe Contest (India) 2012 – one student won **Consolation prize** – myself as faculty instructor

8. Service Activities

- Remote Centre Coordinator for National Mission on Education using ICT thru IITB-MHRD initiative 2018
- "Block Chain Technology" at Savitha School of Engineering, Aug 2018
- **"An Independent Study on Chennai Metro Rail Expansion Corridor – Porur to Kamarajar salai"** carried out and submitted to CMRL in 2016 . Also paper published.
- Session Chair at the National Conference on Innovative Computing Techniques 2015 held on Apr 9-10 , 2015 at Dr. M.G.R. Educational and Research Institute University
- Session Chair at the National Conference at KVCET, Chennai, Mar 2015
- Successfully Completed the "**High Impact Teaching Skills Workshop**" from Dale Carnegie/Wipro Mission 10x
- Instrumental in obtaining and running the **IBM Software Centre of Excellence** in the University. About 700 IBM Certifications obtained by students and faculties since then. Profile at www.ibm.drmgrdu.ac.in
- Instrumental to obtain the **IBM Mainframe Academic Initiative Membership** and hence Mainframe connectivity to the University in July 2012.
- Question Paper Setting for Noorul Islam University and PSN College of Engineering and Technology
- Book Reviewer in Narosa Publishers
- Reviewer for the book IBM Mainframe Handbook by Leon by Vikas Publishing House
- Invited Talk at Refresher Course – FDP at Madras University

- Invited Talk on MS EXCEL for Medical Professionals –at ACS Medical College
- Published a book on " Computer Architecture and Organisation" – ISBN 978-81-87156-54-6 Co-author Dr.S.P.Rajagopalan

9. Publications and Presentations, from past 5 years

INTERNATIONAL JOURNALS

1. Abhinaw Anand, Sumathy Eswaran, "*CASE STUDY: MOODLE Approach to Learning and Content Management System (LCMS)*", International Journal of Computer Sciences and Engineering, Vol.6, Issue.7, pp.1147-1152, 2018.

2. Abhinaw Anand, Sumathy Eswaran, " A Survey of Open Source Learning Management Systems", A*nnals of Computer Science Series,* Tome16, Fasc1, 2018, 185-188.

3. M.Bhuvaneswari, Sumathy Eswaran, S.P.Rajagopalan, "A SURVEY OF VEHICLE ROUTING PROBLEM AND ITS SOLUTIONS USING BIO-INSPIRED ALGORITHMS", *International Journal of Pure and Applied Mathematics*, Volume 118 No. 9 2018, 259-264, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version) Scopus Indexed

4. Eswaran, Sumathy, M. A. J. Bosco, & Rajalakshmi, 2016, "A Study on Traffic Forecast for Metro Railway Expansion in Chennai." *Indian Journal of Science and Technology* [Online], 9(39), (2016): n. pag. Web. 31 Oct. 2016, Hindex :22, SJR 0.23

5. Eswaran, S. and Bhuvaneswari, M., 2016. A RIoT Architecture for Performance Improvement of Railways in Developing Countries. Programmable Device Circuits and Systems, 8(5), pp.146-150.

6. Raghunathan.VS , Dr. V.Cyril Raj , Sumathy Eswaran, Ambika.A, Sangeetha.R.U, "Optimization of Digitalized Document Verification Using e-Governance Service Delivery Platform (e-SDP)", *International Journal of Applied Engineering Research,* ISSN 0973-4562 Volume 11, Number 4, (2016) pp 2531-2539. Scopus Indexed

7. Thanudas, B., Sreelal, S., Manoj, B.S., Raj, V.C. and Eswaran, S., 2015. Agent-Controller based Security Infrastructure for Enterprise Network. *CiiT International Journal of Software Engineering and Technology*, *7*(7), pp.204-207. **ISSN 0974 – 9632**

8. RajaLakshmi, R., T.V. Ananthan, & Sumathyeswaran Sumathyeswaran. 2015, "Advanced Nano Sensor Technology in WBANs." *Biometrics and Bioinformatics* [Online], 7.4 (2015): 104-107. Web. 31 Oct. 2016

9. Sumathy Eswaran, Vijayalakshmi.S, "Shadow Removal from Remote Sensing Images using Efficient Inpainting Methods", *International Journal of Applied Engineering Research,* ISSN 0973-4562 Volume 10, Number 8 (2015) pp. 19989-19999. Scopus Ind

10. S. Priyalakshmi, Sumathy Eswaran, "Robust & Secured Image Authentication System by Watermarking & Iris Biometric", *International Journal of Advanced Research in Computer Science and Software Engineering, (IJARCSSE)*, Vol.5, Issue.4, April 2015 pp. 32 – 36. ISSN: 2277 128X
http://www.ijarcsse.com/docs/papers/Special_Issue/NCICT2015/NCP15369.pdf

11. Vijayalakshmi.S , Priyalakshmi.S , Sumathy Eswaran, "Content Based Video Frame Segmentation by Motion Vectors", *International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE)*, ISSN: 0976-1353, 13(1), pp.134 – 136, MARCH 2015.

12. T.V.Ananthan, Sumathy Eswaran, T.Muralidharan, 2014, "A novel technique to extract image from diverse hand gestures of Google glass by enhancing Gabor filter for variety of platforms", *International Journal of Applied Engineering Research (IJAER),* Volume 9, Number 24 (2014), pp. 25733-25739, ISSN 1087--1090, H Index: 3 **SJR 0.13**

13. Ramakrishnan, MV & Sumathy Eswaran 2013, 'A Comparative Study Of Various Parallel Longest Common Subsequence (LCS) Algorithms', *International Journal of Computer Trends and Technology*, 4 (2), p.183 – 186, ISSN 2231-2803.
http://ijcttjournal.org/archives/ijctt-v4i2p126

14. Marvin Polson P & Sumathy Eswaran, 2012, 'Ontology Creation and Semantic Web for Paddy', *International Journal of Computer Applications(IJCA)*, 41 (9), p.18 - 22. **citations – 2** Available at: ijcaonline.org. **citations -1 ISSN 0975 - 8887**.

15. Sumathy Eswaran & Rajagopalan S P, 2012, 'Identification of Similar H1N1 cases in other parts of the world using SRLCS model Combined with Fuzzy Membership', *International Journal of Advanced Research in Computer Science (IJARCS)*, 3 (2), p.288 - 291. Available at: ijarcs.info 0976 - 5697

16. Sumathy Eswaran & Rajagopalan S P, 2011, ' A Model for identification of Length of Longest Common Subsequence by SRLCS', *International Journal of Computer Applications (IJCA)*, 33 (9), p.17 -21. Available at: http://research.ijcaonline.org/volume33/number9/pxc3875811.pdf.

17. Sumathy Eswaran & Rajagopalan, S P, 2011, 'Heuristic SRLCS Algorithm to determine

the proper alignment strategy for Biosequences', *International Journal of Research and Reviews in Information Technology (IJRRIT)*, 1 (2), p.1 - 7.

18. Thottupuram F.R & Sumathy Eswaran , 2011, 'Farm-Agro Ontology formation: A black pepper model', *International Journal of Research and Reviews in Information Technology (IJRRIT)*, 1 (1), p.1 -9 , **citations - 1**

19. Sumathy Eswaran & Rajagopalan S P, 2010, 'An Efficient Fast Pruned Parallel Algorithm for finding Longest Common Subsequences in BioSequences', *Annals. Computer science Series*, 8 (1), p.137 - 150. Available at: http://anale-informatica.tibiscus.ro/. **2065-7471**

I. International Conferences

1. Seth Helgeson, Corbyn Robberstad, Jaya Preethi Mohan, Sumathy Eswaran, Prakash Ranganathan, "A Comprehensive Survey on Wireless Vulnerabilities Through the OSI and IEEE Model", *Int'l Conf. Modeling, Sim. and Vis. Methods (MSV'18),* LasVegas, USA , JULY2018, pp 76-80, ISBN: 1-60132-486-3, CSREA Press ©

2. Vijayalakshmi.S , Priyalakshmi.S , Sumathy Eswaran, "Content Based Video Frame Segmentation by Motion Vectors", *International Conference on Recent Research in Engineering 2015 (ICRRE 2015) ,* SKR Engineering College, Chennai, MARCH 2015.

3. Sumathy Eswaran & Rajagopalan S P, 2011, 'A study of performance of Longest Common Subsequence identification with sequence identity of biosequences', *International Conference on Sustainable Energy and Intelligent Systems (SEISCON 2011)*, p.666 - 669. Available at: http://digitallibrary.theiet.org/content/conferences/10.1049/cp.2011.0446 Scopus listed

4. Sumathy Eswaran, (2009),   Technology and Unlocking: Hidden Values in Logistics. *International Conference on Transnational Business Challenges & Startegies*, Dr.MGR Educational Research Institute, Chennai, pp 1-16, April 2009

II. National Conferences

1.   G.Sabeena Gnanaselvi, T.V.Ananthan, Sumathy Easwaran, A Study Paper on MANET's Challenges and Security Attacks, National Conference on Innovative Computing Techniques (NCICT'18), 9th &10th April 2018, Chennai, India

2. S.Porkodi,Sumathy Eswaran, Security Enhanced Exam Management in M-Learning Environment, National Conference on Innovative Computing Techniques (NCICT'18), 9th &10th April 2018, Chennai, India

3. Appavu Karunakar, Sumathy Eswaran, L. Ramesh, A Solution to enhance Aadhaar Data Security from hacking using Blockchain Technology, National Conference on Innovative Computing Techniques (NCICT'18), 9th &10th April 2018, Chennai, India

4. M.Arutselvan, T.V. Ananthan, Sumathy Eswaran, Node Centric Misbehavior Detection Schemes for VANET: A Survey, *3rd International Conference on Innovative and Emerging Trends in Engineering and Technology (ICIETET'18),* Panimalar Institute of Technology, Chennai, 9th -10th March 2018.

5. M.Arutselvan, T.V. Ananthan, Sumathy Eswaran, A Survey on Node Based Misbehavior Detection Schemes in VANET, National Conference on Emerging Technologies (EMERGE-2017), Apr 2017

6. G.Sabeena Gnanaselvi, T.V. Ananthan, Sumathy Eswaran, MANETs: A Study on Applications, Challenges and Security Attacks, National Conference on Emerging Technologies (EMERGE-2017), Apr 2017

7. K.C. Anu, A. Ambika, Sumathy Eswaran and V.S. Raghunathan , Challenges and Issues Involved in Promoting E – Governance as Effective Service Delivery, Proceedings of the *3rd National Conference on Innovative Computing Techniques (NCICT'16),* pp164 – 167.

8. T. Rajasekaran and Sumathy Eswaran, A Study of Vehicular Traffic Simulators, Proceedings of the *3rd National Conference on Innovative Computing Techniques (NCICT'16),* PP 180 -184.

9. S. Shruthi, T.V. Ananthan, Sumathy Eswaran and S. Swathi, Harnessing the Power from Home Appliance's Light Source to Fuel Low Power Devices using Graphenes, Proceedings of the *3rd National Conference on Innovative Computing Techniques (NCICT'16),* PP 230 - 232.

10. Sumathy Easwaran, M.A.J. Bosco and Rajalakshmi, A Study on Traffic Forecast for Metro Railway Expansion in Chennai, Proceedings of the *3rd National Conference on Innovative Computing Techniques (NCICT'16,* PP 357 – 361.

11. K.C. Anu, V.S. Raghunathan, Dr. Sumathy Eswaran and Dr V. Cyril Raj, Enabling Construction by Configuration (CbC) in Front End and Back End Systems – A Case Study, Proceedings of the *3rd National Conference on Innovative Computing Techniques (NCICT'16),* PP 367 – 372.

12. Sumathy Eswaran and M. Bhuvaneswari, A RIoT Architecture for Performance Improvement of Railways in Developing Countries, Proceedings of the *3rd National*

Conference on Innovative Computing Techniques (NCICT'16), PP 373 – 376.

13. B.Thanudas, S.Sreelal, B.S.Manoj, V.Cyril Raj and Sumathy Eswaran, Agent-Controller based Security Infrastructure for Enterprise Network, *Proceedings of the National Conference on Innovative Computing Techniques (NCICT15),* pp239 - 242.

14. R. Rajalakshmi, T.V. Ananthan and Sumathy Eswaran, Advanced Nano Sensor Technology in WBAN, *Proceedings of the National Conference on Innovative Computing Techniques (NCICT15),* pp 206 - 209.

15. S. Priyalakshmi and Sumathy Eswaran, Robust & Secured Image Authentication System by Watermarking & Iris Biometric, Proceedings of the National Conference on Innovative Computing Techniques (NCICT15), pp 145 - 148. Published in CIIT

16. S.Vijayalakshmi, Sumathy Eswaran, "Shadow Removal from Remote Sensing Images using Efficient Inpainting Methods", *Proceedings of the National Conference on Innovative Computing Techniques (NCICT15),* pp 140-144.

17. R.Iswarya, Sumathy Eswaran, 2014, "Automatic Detection of Stages of Retinopathy using Fundus Image", *National Conference on Innovative Computing Techniques(NCICT2014),* pp 280-283.

18. Sumathy Eswaran & Rajagopalan S P, 2012, 'Selection using SRLCS Model for Protein Comparative Modelling', *National Conference on Challenges in Business Practices (CIBP 2012)*, Bhaktavatchalam Memorial College for Women, Chennai, P89-92

19. Sumathy Eswaran & Rajagopalan S P, 2011, 'Comparison of SRLCS with Clustal-W for identifying Longest Common Subsequence in Biosequences', *2nd National Conference On Researches In Computer Application & Information Technology(TECH 2011)*, S.A.Engineering College, Chennai pp.120 – 125