



Dr. P.Subashini

Affiliations

- Professor of Computer Science, School of Physical Sciences and Computing Sciences
- Coordinator, [Centre for Machine Learning and Intelligence](#)
- Programme Coordinator, M.Sc. Artificial Intelligence
- Programme Coordinator, B.Sc. Augmented Reality and Virtual Reality

Research Interest

Artificial Intelligence, Image Analysis and Processing, Computational Intelligence, Adaptive Learning, Assistive Technology

International Collaborations

1. Title : ‘Investigating Global warming effect based on texture of icy lake surface condition from Satellite imagery’

Collaborator : University of Stuttgart, Germany

Sponsor : DST-DAAD(PPP 2011)

Amount: Rs. 4,41,000/-,

Duration: August 2011 – July 2013, 2 years

2. Title :International program for Solar powered houses SOLAR DECATHLON AFRICA 2019 – International Collegiate Competition for Green Buildings

Collaborator : University of HASSAN II, Casablanca, Morocco

Sponsor : IRESEN, RABAT, Morocco

Amount: Rs. 11,40,419/-

Duration: Feb 2025 – Jan 2028

Sponsored Research and Development Projects (as Principal Investigator / Coordinator)

1. Title : ‘Evolving Artificial Intelligence Based Hedonic Price Index for Laptops and Mobile Phones in India’ (F.No. M-12001/4/2025-Trg(Computer No 76576))

Sponsor : **Ministry of Statistics and Programme Implementation, Govt. of India**

Amount: Rs. 15,10,000/-

Duration: 15th Sept 2025 – 14th Sept 2026

2. Title : ‘Microbial Consortia and its biomolecules (mVOC) in Rice ecosystem’

Collaborator : Dept. of Agri. Microbiology, Tamilnadu Agricultural University, Coimbatore

Sponsor : Private Scheme – Organova Bio-Agriculture Pvt. Ltd., Coimbatore

Amount: Rs. 9,45,821/-

Duration: Feb 2025 – Jan 2027

3. **Core Research Grant for Artificial Intelligence under CURIE Programme (DST-CURIE-AI Phase-II)(DST/CURIE-AI/04/2020-PHASE-II(G))**
 Sponsor : Department of Science and Technology, Govt. of India
 Amount: Rs. 2,42,10,200/-
 Duration: March 2021 – Sept 2023
4. **Detection of Emotions from Physiological Signals using AI**
 Mentor : Dr. P.Subashini, Mentee : S.Tamilarasi, III MCA
 Sponsor : DST-CURIE-AI
 Amount: Rs. 18,000/-
 Duration: Dec 2019 – March 2020, 4 months
5. **Centre for Machine Learning and Intelligence, DST-CURIE-AI (Phase – I)(DST/CURIE-AI/2019(G))**
 Sponsor : Department of Science and Technology, Govt. of India
 Amount: Rs. 70,00,000/-,
 Duration: April 2019 – June 2020, 1½ years
6. **Title : ‘An algorithm for the demarcation of ocean wakes from SAR imagery of rough sea condition’**
 Sponsor : Contract for Acquisition of Research Services (CARS),
 Naval Physical and Oceanographic Lab (NPOL), DRDO, Cochin
 Amount: Rs. 9,73,500/-,
 Duration: August 2017 – August 2018, 1 year
7. **Title : ‘Design and Development of Computer Assistive Technology system for Differently abled students’**
 Sponsor : Science and Engineering Research Board, Department of Science and Technology, New Delhi
 Amount: Rs. 34,36,000/-,
 Duration: August 2013 – July 2017, 4 years
8. **Title : ‘Study on Impact of Technology use on Minority Student’s Academic Achievement’**
 Sponsor : Dr.Ambedkar Study Center, Avinashilingam University for Women, Coimbatore
 Amount: Rs. 8,000/-,
 Duration: April 2011 – Sept 2011, 6 months
9. **Title : ‘Tracking and recognition of ship targets in SAR data for coastal maritime surveillance system’**
 Sponsor : Naval Research Board (NRB), DRDO
 Amount: Rs. 19,32,000/-,
 Duration: March 2011 – March 2013, 2 years
10. **Title : ‘Classification and Recognition of Tamil handwritten characters using Self organizing Maps’**
 Sponsor : UGC – University Grants Commission.
 Amount: Rs. 55,000/-,
 Duration: April 2008 – March 2010, 2 years
11. **Title : ‘A Study on defining maneuvering parameters of ship model by analyzing wakes using image processing techniques’**
 Sponsor : Naval research Board, DRDO
 Amount: Rs. 27,34,000/-,
 Duration: March 2007 – July 2010, 3 years and 3 months

Sponsored Research & Development Projects (as Co-Investigator)

12. **Title : ‘Self-Monitoring Non-invasive Diagnostic Device’**
Sponsor : Seed Money Research Grant, Avinashilingam University
Amount: Rs. 50,000/-,
Duration: June 2023 – May 2024, 1 year
13. **Title : ‘Developing a system for the identification of fresh water algal community using image processing and neural network in lakes at Coimbatore, TamilNadu’**
Sponsor : University Grants Commission (UGC)
Amount: Rs. 12,16,300/-,
Duration: June 2012 – May 2015, 3 years
14. **Title : ‘Detection and Classification of under water mines using Image processing techniques and Neural networks’**
Sponsor : Naval Research Board (NRB), DRDO
Amount: Rs. 19,91,800/-,
Duration: March 2011 – March 2013, 2 years
15. **Title : ‘Design and Development of Landmine detection system using Wireless sensor networks for Military applications’**
Sponsor : Armament research Board, DRDO
Amount: Rs. 13,24,800/-,
Duration: 2008 – 2010, 2 years
16. **Title : ‘Adaptable key management system for mobile adhoc networks’**
Sponsor : University Grants Commission (UGC)
Amount: Rs. 7,21,800/-,
Duration: 2008 – 2011, 2 years

Memorandum of Understanding

- University of Wyoming, USA
- University Hassan II, Casablanca, Morocco
- Athabasca Open University, Canada
- Kyungpook University, South Korea
- Scopik Edutech, Chennai
- Enthu Technology Solutions India Ltd., Coimbatore
- INSTA 3D Technologies LLP, Coimbatore, Coimbatore

Ph.D. Dissertations

- Jennyfer Susan M.B., 2024, ‘Specular Reflection Removal on Smart Colposcopy Images using Deep Learning Inpainting Model for Enhanced Grading of Cervical Cancer’
- M.Manjutha, 2022, ‘Analysis of Tamil Stuttered Speech using Computational Intelligence’
- M.Rajalakshmi, 2020, ‘Improved Segmentation Techniques for Toxin Detection in Chili Pepper X-Ray images’
- T.T.Dhivyaprabha, 2019, ‘Synergistic Fibroblast Optimization – a novel nature inspired computing algorithm’
- P.T.Bharathi, 2016, ‘Optimized feature selection methods for classification of river ice types from aerial images’
- Jansi S., 2016, ‘Hybrid Fuzzy Clustering technique using Random based optimization for segmenting MRI brain images’

- Sri Devi N., 2015, ‘Optimized Complex Extreme Learning Machine for Classification of 11th Century handwritten Tamil Scripts’
- Devi aruna D., 2014, ‘Layerwise Security Framework with SNAAuth-SPMAODV to defend Denial of Service attack for Mobile adhoc Networks in Hostile Environment’

Scientific Engagement and Output

Patents Granted

- KIDBOT 1.0, Patent No. 503234, Application No. – 202241029718, 24/05/2022
- Cervical Cancer Self-Test Kit, Patent No. 527686, Application. No. – 202241020392, 05/04/2022
- Artificial Intelligence-based Mosquito Trap to Control Vector-Borne Diseases, Application No. - 202241021066 – Published, Jan 2026

Patents Published

- AI based Binocular wearable potential acuity tester, Application No. - 202441036039 – Published, May 2024

Books / Monograph published

- ‘Prototype Experiments for Beginners’, Interactive TEXT book, 12th Aug 2025, Runestone Academy, USA
https://runestone.academy/ns/books/published/Prototype_Experiments_for_Beginners/frontmatter.html?mode=browsing
- ‘ஆண்ட்ராய்டு எனும் நான், பகுதி - I எளிய கூறுகள்’, 12th Dec 2024, Saradalaya Press, Coimbatore, 978-93-93518-15-6
- ‘ஆண்ட்ராய்டு எனும் நான், பகுதி - II மேம்பட்ட கருத்துருக்கள்’, 12th Dec 2024, Saradalaya Press, Coimbatore, 978-93-93518-16-3
- ‘Python for Chemistry - with simple exercises’, 17th June 2024, Notion Press, Chennai, ISBN – 979-8894467214
- ‘Explore Python for Mathematics’, 25th April 2024, Notion Press, Chennai, ISBN - 979-8893634549
- ‘Machine Learning using Google Colab – for Chemistry and Biochemistry Applications’, 16th Dec 2022, Notion Press, Chennai, ISBN –13 979-8889239963.
- Edited Book – ‘Smart Innovation, Systems and Technologies’, Proceedings of Networking, Intelligent Systems, and Security, NISS 2021, Springer, eBook ISBN 978-981-16-3637-0, Print ISBN 978-981-16-3636-3.
- ‘Prototype Experiments for Beginners – Embedded Systems’, 6th Oct 2021, Notion Press, Chennai, ISBN – 9781685638054.

- ‘**Nature Inspired Computing (NIC): Research and its Applications**’, 16th Oct 2020, Notion Press, Chennai, ISBN – 9781636691015.
- ‘**I am your Android – Volume I, Simple Concepts**’, Sept 2020, Xpress Publishing, Chennai, ISBN - ISBN-10 : 1636330010, ISBN-13 : 978-1636330013.
- ‘**I am your Android – Volume II, Advanced Concepts**’, 17th Sept 2020, Xpress Publishing, Chennai, ISBN-10 : 1636330118, ISBN-13 : 978-1636330112.
- ‘**Off-line recognition of handwritten Tamil sentences using Hybrid Hidden Markov Model**’, LAP LAMBERT Academic Publishing GmbH & Co., KG Heinrich-Böcking-Str.6-8, 66121, Saarbrücken, Germany, ISBN: 978-3-8484-0633-3.
- ‘**தமிழ் சொல் செயலிகளின் செய்முறை விளக்கம்– தமிழில்**’ (**‘Tamil Word Processors – a practical approach (in Tamil)’**), December 2011, IRIS Publications, Coimbatore, ISBN – 938054313-1

Book Chapters published (13)

1. Murugan, M., da Silveira, A.C., **Subashini, P.**, Ghinea, G., Santos, C.A.S. (2024). Technology-Enhanced Multimedia Learning (TEML) Through Design for Learners with Dyslexia for Enhancing the Quality of Experience (QoE). In: Huang, R., Liu, D., Adarkwah, M.A., Wang, H., Shehata, B. (eds) *Envisioning the Future of Education Through Design. Lecture Notes in Educational Technology*. Springer, Singapore. https://doi.org/10.1007/978-981-97-0076-9_10 (Scopus)
2. Krishnaveni, M., **Subashini, P.**, Dhivyaprabha, T.T., Gayathre, B., Manimegalai, K. (2023). Artificial Intelligence–Internet of Things Enabled Mosquito-Based Diseases Identification Trap. In: *Hassanien, A.E., Zheng, D., Zhao, Z., Fan, Z. (eds) Business Intelligence and Information Technology*. July 2023. Smart Innovation, Systems and Technologies, vol 358. Springer, Singapore. DOI: https://doi.org/10.1007/978-981-99-3416-4_64.
3. Susan M. B., J., **Subashini, P.**, & Krishnaveni, M. (2023). Artificial Intelligence of Things for Smart Healthcare Development: An Experimental Review. In P. Swarnalatha & S. Prabu (Eds.), *Handbook of Research on Deep Learning Techniques for Cloud-Based Industrial IoT*, pp. 29-60. IGI Global. DOI: <https://doi.org/10.4018/978-1-6684-8098-4.ch003>
4. **Subashini, P.**, Dhivyaprabha, T.T., Krishnaveni, M., Jennyfer Susan, M.B. (2023). Smart Intelligent System for Cervix Cancer Image Classification Using Google Cloud Platform. In: Ahad, M.A., Casalino, G., Bhushan, B. (eds) *Enabling Technologies for Effective Planning and Management in Sustainable Smart Cities*. Springer, Cham, PP. 245-281. https://doi.org/10.1007/978-3-031-22922-0_10.
5. M., Mohana, Nandhini K., **Subashini.P.**, "Review on Artificial Intelligence and Robots in

STEAM Education for Early Childhood Development: The State-of-the-Art Tools and Applications." *Handbook of Research on Innovative Approaches to Early Childhood Development and School Readiness*, edited by Anastasia Lynn Betts and Khanh-Phuong Thai, IGI Global, 2022, pp. 468-498. <https://doi.org/10.4018/978-1-7998-8649-5.ch019>, *Citation-1*

6. **Subashini, P.**, Krishnaveni, M., ‘Artificial Intelligence Based Assistive Technology’, *ARTIFICIAL INTELLIGENCE THEORY, MODELS, AND APPLICATIONS*, Taylor & Francis Group, CRC Press, 2022, ISBN: 978-1-032-00809-7, DOI: 10.1201/9781003175865, Pg. 217 – 240.
7. Dhivyaprabha, T.T., **Subashini, P.**, Krishnaveni, M., Santhi, N., Ramesh Sivanpillai and Jayashree, G. (2020). ‘An Intelligent Estimation Model for Water Quality Parameters Assessment at Periyakulam Lake, South India’. In: Fatos Xhafa, Siddhartha Bhattacharyya, Naba Kumar Mondal, Jan Platos, Vaclav Snasel, Pavel Kromer, ed., *Elsevier Intelligent Environmental Data Monitoring for Pollution Management*, pp. 161-193. ISBN 978-0-12-819671-7. DOI: <https://doi.org/10.1016/B978-0-12-819671-7.00007-5>. *Citation-1*
8. **Subashini, P.**, Krishnaveni, M., Dhivyaprabha, T.T. and Shanmugavalli, R. (2019). Review on Intelligent Algorithms for Cyber Security. In: Padmavathi Ganapathi, Shanmugapriya, D., ed., *Handbook of Research on Machine and Deep Learning Applications for Cyber Security*, pp. 1-22. ISSN: 1948-9730, eISSN: 1948-9749, DOI: <https://dx.doi.org/10.4018/978-1-5225-9611-0.ch001>. *Citation -8*
9. Krishnaveni, M., **Subashini, P.** and Dhivyaprabha, T.T. (2018). An Assertive Framework for Automatic Tamil Sign Language Recognition System using Computational Intelligence. In: Hemanth, Jude, Balas, Valentina Emilia, ed., *Springer Nature Inspired Optimization Techniques for Image Processing Applications*, volume 150, pp. 55-87. E-ISSN: 978-3-319-96002-9, print ISBN: 978-3-319-96002-9, DOI: <https://dx.doi.org/10.1007/978-3-319-96002-9>. *Citation -2*.
10. ‘Optimized weighted median filter using M-CPSO for efficient removal of impulse noise in Tamil sign language digital images’, *Advanced Engineering Research and Applications*, Chapter 28, Vol. II, April 2017, Research India Publications, ISBN 978-93-86138-58-3, Pg. No. 415 – 430
11. ‘Computational Intelligence Based Cell Nuclei Segmentation from Pap Smear Images’, *Biomedical Image Analysis and Mining Techniques for Improved Health Outcomes*, a Volume in IGI Global book series *Advances in Bioinformatics and Biomedical Engineering (ABBE)*, Hershey, USA, November 2015, Chapter 13, ISSN: 2327-7033; eISSN: 2327-7041. Pg. No. 262 – 284. *Citation -2*
12. ‘Image denoising based on wavelet analysis for Satellite imagery’, *Wavelet Transform / Book 2*, ISBN 979-953-307-385-8, INTECH publishers, Rijeka, Croatia, Chapter 19, pg. 449

– 474, March 2012. *Citation -12*

13. ‘Intelligent Classifiers Fusion for enhancing recognition of genes and protein pattern of inheritance diseases’, Systemic Approaches in Bioinformatics and Computational systems Biology, IGI Global Publishers, Hershey, USA, December 2011, Chapter 10, pg. no. 220 – 248, DOI: 10.4018/978-1-61350-435-2, ISBN13: 9781613504352, ISBN10: 1613504357, EISBN13: 9781613504369.

Publications in International Journals (94)

1. Jennyfer Susan. M. B., **Subashini P.**, & Dhivyaprabha T. T. (2025). ‘Advancing Cervical Cancer Care: A Comprehensive Study of Screening Approach for Tribal Women in Sub-Saharan Africa and Asia’. Iranian Journal of Public Health, 54(10), 2151–2160" (SCI and Scopus Indexed)
2. Ammapettai Varanavaswathi Lakshmi, Mani Poonkothai, **Parthasarathy Subashini**, Jayachandran Priyanka, Kathiresan Nachammai, Kulanthaivel Langeswaran, Chandrabose Selvaraj & Kaliappan Kalaiarasi (31 Oct 2025): ‘Multivariate optimization and computational insights for the effective decolorization of reactive orange 107 using Rhizoclonium hieroglyphicum and its sustainable reuse potential’, International Journal of Phytoremediation, <https://doi.org/10.1080/15226514.2025.2579144> (Scopus)
3. Senthilvel, A., Marimuthu, K., & **Parthasarathy, S.** (2025). ‘Enhanced white blood cell and platelet segmentation: A particle swarm optimization-based chromaticity approach’. *Pertanika Journal of Science & Technology*, 33(3), 1633–1660. <https://doi.org/10.47836/pjst.33.3.24> (Scopus and ESCI)
4. Mohana, M., **Subashini, P.** & Ghinea, G., 2025, XAI-DSCSA: explainable-AI-based deep semi-supervised convolutional sparse autoencoder for facial expression recognition. Springer Nature International Journal of Signal, Image and Video Processing (*SIViP*), Vol 19, 394 (2025). <https://doi.org/10.1007/s11760-025-03984-1> (Scopus and SCIE)
5. Sekar, Bhuvaneshwari and Parthasarathy, **Subashini**. "Empirical analysis on retinal segmentation using PSO-based thresholding in diabetic retinopathy grading", *Biomedical Engineering / Biomedizinische Technik*, 2025. <https://doi.org/10.1515/bmt-2024-0299>, (Scopus and SCIE)
6. Mohana, M., **Subashini, P.** Facial Expression Recognition Using Machine Learning and Deep Learning Techniques: A Systematic Review. SN COMPUT. SCI. 5, 432 (2024). <https://doi.org/10.1007/s42979-024-02792-7>, (Scopus)
7. Mohana, M., **Subashini, P.**, and Shukla, Diksha. ‘Revisiting Face Detection: Supercharging Viola-Jones with Particle Swarm Optimization for Enhanced Performance’. 1 Jan. 2024: 10727–10741, ISSN 1064-1246(P), ISSN 1875-8967 (E) (Scopus and SCIE), Impact Factor: 1.7

8. Ramaraj K, Narayan V, Dhivyaprabha TT, **Subashini P.** , ‘A healthy nutrition suggestion model for Indian women sports players & active youth using long short-term memory’. *Internet Technology Letters*. 2023; e452. DOI: 10.1002/itl2.45 (Scopus)
9. Jennyfer Susan, **Parthasarathy Subashini**, "Deep Learning Inpainting Model on Digital and Medical Images-A Review", *The International Arab Journal of Information Technology (IAJIT)*, Volume 20, No. 06, pp. 919- 936, November 2023, doi: 10.34028/iajit/20/6/9. ISSN: 1683-3198, Impact factor: 1.2, (SCIE and Scopus)
10. Jennyfer Susan M B, **Subashini P**, Krishnaveni M, Indhumathi T, "Detection of Specular Reflection from Smart Colposcopy Image using RGB Color Space and Convolutional Neural Network," *International Journal of Engineering Trends and Technology*, vol. 71, no. 10, pp. 29-38, 2023. Crossref, <https://doi.org/10.14445/22315381/IJETT-V71I10P204>. (Scopus)
11. Thomas, E. L., and **S. Parthasarathy**. “Expressivity of Tweets on Social Issues Using Aspect Based Text Classification”. *International Journal on Recent and Innovation Trends in Computing and Communication*, vol. 11, no. 7s, July 2023, pp. 669-680, <https://ijritcc.org/index.php/ijritcc/article/view/7528>, <https://doi.org/10.17762/ijritcc.v11i7s.7528> (Peer Reviewed)
12. R. Shanmugavalli and **P. Subashini**, “Investigation of Ant Colony Optimization Algorithm for Efficient Energy Utilization in Wireless Sensor Network”, *International Journal of Computer Networks & Communications (IJCNC)*, vol. 15, no. 4, pp. 73-92, July 2023. ISSN: 0975-2293, E-ISSN: 0974-2293, Publisher Name: AIRCC Publishing Corporation (Scopus).DOI:10.5121/ijcnc.2023.15405. <https://aircconline.com/abstract/ijcnc/v15n4/15423cnc05.html>.
13. Mohana, M., **Subashini, P.**, & Krishnaveni, M. (2023). Emotion Recognition from Facial Expression using Hybrid CNN-LSTM Network. *International Journal of Pattern Recognition and Artificial Intelligence*. VOL.37, No.08, <https://doi.org/10.1142/S0218001423560086>. (Scopus and Web of Science (SCIE)), Impact Factor: 1.5.
14. R. Keerthana, N. Valliammal, T.T. Dhivyaprabha and **P. Subashini**. (2023). A healthy nutrition suggestion model for Indian women sports players & active youth using long short-term memory. *Internet Technology Letters*, Special Issue Article, pp. 1-6. DOI: <https://doi.org/10.1002/itl2.452>, URL: <https://onlinelibrary.wiley.com/doi/10.1002/itl2.452>. (Scopus and Web of Science (E-SCI)), Impact Factor: 1.7
15. M.B. Jennyfer Susan, **P. Subashini**. (2023). Improvising Grading of Cervical Cancer using Quality Assessments method in Smart Colposcopy Images, Elsevier Journal on *Measurement Sensors*, Vol. 27(2023) pp. 1-11. DOI: 10.1016/j.measen.2023.100788. (Scopus).
16. Manjutha, M., **Subashini. P.**, (2022), ‘Statistical Model-based Tamil stuttered speech segmentation using Voice Activity Detection’, *International Journal of Positive School Psychology*, Vol. 6, No. 8, ISSN: 2717-7564, Pg. 1461-1473 (Scopus)

17. Manjutha, M., **Subashini. P.**, (2022), "Survey on optimization algorithms in speech processing", International Journal of Health Sciences, Vol. 6, No. S5, pp. 2997–3017. ISSN: ISSN 2550-6978, DOI: <https://doi.org/10.53730/ijhs.v6nS5.9307> (Scopus)
18. M.B. Jennyfer Susan, **P. Subashini**, and M. Krishnaveni (2022) “Comparison of various deep learning inpainting methods in smart colposcopy images”, International Journal of Computational Intelligence Studies, Vol.11(1), pp: 53–72. <https://doi.org/10.1504/ijcistudies.2022.123347> (Group-1)
19. Soumya Haridas, **P. Subashini**, (2021), ‘A survey of different methods for automated diagnosis of cervical cancer in pap-smear image’, Journal of Mathematical and Computational Sciences, Vol. 11 (2021), Pp. 6829-6856, ISSN: 1927-5307, DOI: [10.28919/jmcs/6264](https://doi.org/10.28919/jmcs/6264), *citation-1* (Peer Reviewed)
20. Manjutha. M., **Subashini. P.**, and Krishnaveni. M. (2020), “Acoustic Analysis of Formant Frequency Variation in Tamil Stuttered Speech,” Journal of Advance Research in Dynamial and Control Systems, Vol.12, No. 07, 2020, pp.2934-29442, ISSN:1943-023X, DOI:10.5373/JARDCS/V12SP7/20202438 (Scopus)
21. M. Manjutha, **P.Subashini**, M.Krishnaveni, (2019),”Vocal Tone Analysis for Identification of Stuttering Levels based on Tamil Syllable”, International Journal of Recent Technology and Engineering (IJRTE), Vol.8, No.2, ISSN:2277-3878, Pp.4472- 4483. DOI: 10.35940/ijrte.B3211.078219. (Scopus)
22. B. Preethi, **P.Subashini**, M. Krishnaveni. (2019), Wireless Based CO₂ Monitoring System for Mushroom Cultivation. *IJRAR – International Journal of Research and Analytical Reviews (IJRAR)*, Vol. 6, Issue 1, March 2019, pp. 552-557. E-ISSN: 2348-1269, P-ISSN: 2349-5138. (Peer Reviewed)
23. **P.Subashini**, T.T. Dhivyaprabha, M. Krishnaveni, G. Vedha Viyas. (2019), Motility Factor Based Optimized Q-learning Algorithm for Intelligent Walking Cane. *IJRAR – International Journal of Research and Analytical Reviews (IJRAR)*, Vol. 6, Issue 1, March 2019, pp. 532-539. E-ISSN: 2348-1269, P-ISSN: 2349-5138. *Citation-1* (Peer Reviewed)
24. Dhivyaprabha,T.T., **Subashini,P.** and Krishnaveni,M.(2018). Synergistic Fibroblast Optimization:A Novel Nature Inspired Computing Algorithm. *Springer Frontiers of Information Technology & Electronic Engineering*, vol.19, no.7, pp.815-833. ISSN:20959184(print),20959230(online), DOI: <http://dx.doi.org/10.1631/FITEE.1601553>, indexed in SCI, Thomson Reuters, Imaper Factor – 1.604, *citation -17* (Scopus & SCIE)
25. R. Shanmugavalli, **P.Subashini**, (2018), “Energy Consumption Analysis in WSN Based on Node Placement Strategies”, International Journal of Engineering and Technology, vol. 7, no. 3.12, July 2018, pp. 531-535. ISSN: 2227-524X, DOI: [10.14419/v7i3.12.16173](https://doi.org/10.14419/v7i3.12.16173). (Peer Reviewed)

26. T.T. Dhivyaprabha, **P.Subashini**, M. Krishnaveni, N. Santhi, Ramesh Sivanpillai, G. Jayashree. (2018), A novel synergistic fibroblast optimization based Kalman estimation model for forecasting time-series data. *Springer Evolving Systems*, Vol. 10, 2018, pp. 1-16. DOI: <https://doi.org/10.1007/s12530-018-9217-0>. Print ISSN: 1868-6478, Online ISSN: 1868-6486, Publisher Name: Springer Berlin Heidelberg, Thomson Reuters indexed, Impact factor – 2.16. **Citation-4 (Scopus & SCIE)**
27. **P.Subashini**, T.T. Dhivyaprabha, M. Krishnaveni, (2017), Cellular Organism based Particle Swarm Optimization Algorithm for Complex Non-linear Problems. *MATTER: International Journal of Science and Technology*, Vol. 3, No. 2, September 2017, pp. 209-229. ISSN 2454-5880. **Citation-3 (Peer Reviewed)**
28. M. Krishnaveni, **P.Subashini** , T.T. Dhivyaprabha, (2017), Synergistic Fibroblast Optimization Based Boundary Detection in Tamil Sign Language Images. *MATTER: International Journal of Science and Technology*, Vol. 3, No.2, September 2017, pp. 193-208. ISSN 2454-5880. **(Peer Reviewed)**
29. M. Manjutha, Dr. **P.Subashini**, (2017), “Particle Swarm Optimization based Voice Activity Detection for Stuttered Tamil Speech”, *International Journal of Computer Engineering and Applications*, September 2017, ISSN 2321-3469, Volume XI, Issue IX, pp.1-14 . **(Peer Reviewed)**
30. Manjutha M, Gracy J, **Dr P Subashini**, Dr M Krishnaveni, (2017), “Automated Speech Recognition System – A Literature Review (Extended Version)”, *International Journal of Engineering Trends and Applications (IJETA)*, ISSN: 2393-9516 Vol.4 Issue.2, Pp.42-49, Mar-Apr 2017. **(Peer Reviewed)**
31. Dr. Krishnaveni, M, **Dr. Subashini, P**, Ms.Dhivyaprabha, T T. (2016). Improved Canny Edges using Cellular based Particle Swarm Optimization technique for Tamil Sign Digital Images. *International Journal of Electrical and Computer Engineering (IJECE)*, Vol 6 No. 5, Pg. 2158-2166, ISSN: 2088-8708. Oct 2016, (SJR – 0.16), Impact factor – 0.223. **Citation-8 (Scopus)**.
32. Dr M Krishnaveni, **Dr P Subashini**, TT Dhivyaprabha, “PSO-based Optimized Canny Technique for Efficient Boundary Detection in Tamil Sign Language Digital Images,” *International Journal of Advanced Computer Science and Applications (IJACSA)*, ISSN: 2156-5570(Online), ISSN : 2158-107X(Print), Vol. 7, June 2016, pp. 312-318, Impact factor – 1.324, Thomson Reuters. **Citation-4, (E-SCI)**
33. Dr. M. Krishnaveni , **Dr. P.Subashini** , Ms. T.T.Dhivyaprabha, 2015, ‘ Efficient Removal of Impulse Noise in Tamil Sign Language Digital Images using PSO Based Weighted Median Filter ‘, *International Journal of Applied Engineering Research, (IJAER)*, ISSN 0973-4562 Volume 10, Number 19 (2015), November 2015, pp 40474-40480. **Citation-5, (Peer Reviewed)**

Publications in International Conferences (91)

1. George, E.L., Parthasarathy, S. (2026). Tweeting the Vote: Influence Propagation and Community Analysis on Political Tweets with a Quantum Clustering Approach. Proceedings of 6th International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications. ICMISC 2025. Lecture Notes in Networks and Systems, vol 1736. Springer, Singapore. pp 151–166, https://doi.org/10.1007/978-981-95-5079-1_18
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3. Sesan, D ; Dhanalakshmi., Jennyfer Susan, M B., Krishnaveni, M., Narmatha, T., **Subashini, P.**, Prabavathi T. (2025). IoT Enabled Indian Postal Sign Recognition System: Facilitating Communication Among Individuals with Hearing and Speech Impairments. In: Hassanien, A.E., Rizk, R.Y., Darwish, A., Alshurideh, M.T.R., Snášel, V., Tolba, M.F. (eds) Proceedings of the 11th International Conference on Advanced Intelligent Systems and Informatics (AISI 2025). AISI 2025. Lecture Notes on Data Engineering and Communications Technologies, vol 238. Springer, Cham. https://doi.org/10.1007/978-3-031-81308-5_36
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5. S. Bhuvaneswari, **Dr. P. Subashini**, Mrs. N. Sathya, 2025, 'Automated Detection of Hard Exudates for Diabetic Retinopathy Severity Assessment Using Detectron2 Framework', WUACD International Conference 2025 on 'One Health', Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, 6th-7th Feb 2025.
6. Aiswarya S., Krishnaveni M., **Subashini P.**, Aathi Obusre M., and Narendran P.(2024) "Automatic Detection of Erythrocytes for Sickle Cell Disease Identification Based on YOLOv8n Network" In 5th International Conference on Computational Intelligence (ICCI 2024), Sardar Vallabhbhai Patel National Institute of Technology, Surat, 24th – 26th Dec 2024, Springer publications.
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39. R. Shanmugavalli, **P.Subashini**, "Energy Consumption Analysis in WSN Based on Node Placement Strategies" (*Abstract only*), 1st International Conference on Information Security Risks – Techno Legal Management TeLIMISR-2018, Vivekanandha Institute of professional Studies, New Delhi, May 21st & 22nd 2018.

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45. Ms. T.T. Dhivyaprabha, Dr. **P.Subashini** , ‘Performance Analysis of Synergistic Fibroblast Optimization(SFO) Algorithm’, IEEE sponsored International conference on current trends in advanced computing (ICCTAC), Bangalore, India, 2nd – 3rd March 2017. *Citation-3*
46. Ms. T.T. Dhivyaprabha, Dr. **P.Subashini**, Dr. M. Krishnaveni. ‘Computational Intelligence Based Machine Learning Methods for Rule-Based Reasoning In Computer Vision Applications’. IEEE Symposium Series on Computational Intelligence (SSCI), Athens, Greece, 6th – 9th December 2016, ISBN: 978-1-5090-4239-5, E-ISBN: 978-1-5090-4240-1, Print on Demand (PoD) ISBN: 978-1-5090-4241-8, DOI: [10.1109/SSCI.2016.7850050](https://doi.org/10.1109/SSCI.2016.7850050). *Citation-15*
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48. Ms. G.Jayashree, Dr. **P.Subashini**, Dr. M. Krishnaveni, Ms. T.T.Dhivyaprabha, 'Investigation on Data Analytics in Neonatal Intensive Care Unit(NICU)', 3rd International Conference on Electronics, Computer and Manufacturing Engineering (ICECME 2016), Universal Researchers in Science and Technology, Dubai, 9th – 10th Oct 2016 pg. 19-25, ISBN 978-93-84468-74-3.

49. Dr. **P.Subashini** , Dr. M. Krishnaveni, M. Manjutha, 'Optimized boundary detection algorithm for postal signs recognition system using variant based particle swarm intelligence'. IEEE International Conference on Computational Systems & Information Technology for sustainable Solution (CSITSS 2016), R V College, Bengaluru, 6th-8th Oct 2016, pg. 162-168, ISBN 978-1-5090-1022-6/16. DOI: [10.1109/CSITSS.2016.777916](https://doi.org/10.1109/CSITSS.2016.777916)
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54. Subashini P., Jansi S, 2015, ‘Optimized Segmentation for MRI brain images’, Proceedings of IEEE TENCON 2015, Region 10 and University of Macau, Macau, IEEE Xplore Digital Library, ISBN:978-1-4799-8639-2, 1st – 4th Nov 2015. **Citation-7**
55. B.Savitha, **Dr.P.Subashini**, Dr.M.Krishnaveni, 2014,” An Experimental Study on Cervical Cancer Cell Detection using Computer Vision Based techniques”, Proceedings of the IEEE Sponsored 9th International Conference on Intelligent Systems and Control (ISCO)2015, Volume-2, ISBN:978-1-4799-6479-6, Karpagam College of Engineering, 9th-10th January 2015, pg:1236-1244.

Poster Publications (4)

1. R Chakkaravarthini, SN Geethalakshmi, **P Subashini** and TT Dhivyaprabha. Digital Apps for Nursing the Health Conditions of Pregnant Women, Infants and Young Children. *ScienceOpen Posters*. 2023. DOI: <https://doi.org/10.14293/P2199-8442.1.SOP-.PUWWLN.v1>
2. **Subashini P**, Krishnaveni M, Dhivyaprabha TT, Malini R, Keerthika V, Kaviya G. (2023). "A contemporary study on solar energy applications and evaluation in real-timeenvironment".PeerefPoster),DOI: <https://doi.org/10.54985/peeref.2304p8181720>. **Link:** <https://www.peeref.com/posters/10413/a-contemporary-study-on-solar-energy-applications-and-evaluation-in-real-time-environment>
3. Pooja Sri Saraswathi A., Vijayabhanu R., **Subashini P.**, Dhivyaprabha T T., Jennyfer Susan M B. (2023). Graph Neural Network: The Next Frontier in Deep Learning. *Science Open Posters*, DOI: 10.14293/P2199-8442.1.SOP-.P9BKIX.v1.
4. Kamalini D, Vijayabhanu R and **Subashini P.**, Dhivyaprabha T T., Jennyfer Susan M B. (2023). Revolutionizing Chemistry with Artificial Intelligence: Opportunities and Applications, *Science Open Posters*. DOI: 10.14293/P2199-8442.1.SOP-.PSNSPU.v1

Invited Talks (106)

1. Guest lecture on ‘AI & ML in Microbiology: Revolutionizing Research and Applications’, Department of Microbiology, PSG College of Arts & Science, Coimbatore, 13th February 2026.
2. Invited Talk ‘AI in Ocean Engineering: Applying Intelligence to complex problems’, Three-Day workshop on 'Scientific Computing and Machine Learning' (MHRD-SPARC Sponsored), Sastra University, Thanjavur, 4th Feb 2026.
3. Thematic Speech, ‘How AI will Foster Data-Driven Scientific Research’, 11th Smart Learning Academic Week, Briefing Session for the Global Competition on Design for Futures 2026, Beijing Normal University, China, 15th Jan 2026.

4. Keynote Address on 'Responsible AI Enabling Human-AI Co-Creation in Industry 5.0', IEEE - International Conference on Connected Innovation and Technology, IEEE-ICCITX.0 2026, Agadir, Morocco, 1st – 3rd April 2026.
5. Invited talk on 'Multidisciplinary perspective of Artificial Intelligence', Research Conclave, DG Vaishnav College of Arts and Science, Chennai, 13th Sept 2025.
6. Invited Talk on 'Explainable AI and its Importance', AICTE Training and Learning (ATAL) Academy sponsored 6-day Faculty Development Program (FDP), KG College of Arts and Science, Coimbatore, 19th Aug 2025.
7. Keynote Address on 'Machine Learning for Cybersecurity', Third International Conference on Cyber and Information Security (ICCIS 3.0), DG Vaishnav College of Arts and Science, Chennai, 09th Sept 2025.
8. Invited Talk on 'Artificial Intelligence for Sound Engineering', 2nd Short Term Capacity Building Programme on 'Transforming Visual Communication Education with Artificial Intelligence', CMLI & AIU-AI-AADC, Avinashilingam University, Coimbatore, from 19th Mar 2025.
9. Invited Talk on 'Expanding AI for Children with Disabilities', 3 Day CRE programme on 'Teaching methods for Children with Disabilities', Dept. of Special Education, Avinashilingam University, 27th Feb 2025.
10. Invited talk on 'Artificial Intelligence for BioSciences', International Conference on "Innovations in Intelligent Computing and Biological Sciences,", Sri Ramakrishna College of Arts & Science for Women, Coimbatore, 24th Jan, 2025.
11. Invited Talk on 'Protecting from Cyber Threats', 10th Short Term Capacity Building Programme on 'Smart Digital Practices for Non-Teaching Staff in Higher Education', AIU-AI-AADC, Avinashilingam University, Coimbatore, from 19th to 21st Dec 2024.
12. Invited Talk on 'GenAI for Teaching, Learning and Assessment', "Guru Dakshta – Faculty Induction Program for Newly Recruited Faculty Members 2024-25", Avinashilingam University, 05th Dec 2024.
13. Invited Talk on 'Responsible AI for Education', "Guru Dakshta – Faculty Induction Program for Newly Recruited Faculty Members 2024-25", Avinashilingam University, 05th Dec 2024.
14. Invited Talk on 'Application of Artificial Intelligence, Machine Learning and Internet of Things in Animal Agriculture and Integrated Farming', 9th Short Term Capacity Building Programme on 'Revolutionizing Life Sciences using Artificial Intelligence', CMLI & AIU-AI-AADC, Avinashilingam University, Coimbatore, from 25th to 29th Nov 2024.
15. Invited Talk on 'Open Source AI Tools for Biomedical Applications', 8th Short Term Capacity Building Programme on 'Artificial Intelligence for Engineers: Tools, Techniques and Applications', CMLI & AIU-AI-AADC, Avinashilingam University, Coimbatore, from 16th Oct 2024.

16. Invited Talk on 'Explainable, physics aware data driven deep learning for drone data analysis', 2nd Annual Wyoming Computing Symposium 2024, School of Computing, University of Wyoming, Laramie, USA, 20th Sept 2024.
17. Invited Talk on 'Internet Surfing Skills', 7th short-term capacity-building program for the year 2024 on the topic "Digital Skills Training for Non-Teaching Staff", Avinashilingam University, Coimbatore, 12th Sept 2024.
18. Invited Talk on 'Intelligent Tutoring Systems and Virtual Teaching Assistants', 5th short-term capacity-building program for the year 2024 on the topic " AI Assisted Learning in Physical and Computation Sciences ", Avinashilingam University, Coimbatore, 15th July 2024.
19. Delivered a talk on 'Orientation of Lanquill – AI based adaptive Language Learning Tool', Avinashilingam University, Coimbatore, 2nd April 2024.
20. Invited Talk on 'Lanquill – AI based adaptive Language Learning Tool', 2nd short-term capacity-building program for the year 2024 on the topic " Adaptive Learning: Personalized Education with AI ", Avinashilingam University, Coimbatore, 1st April 2024.
21. Invited Talk, 'Research Paper Writing', School of Computer Science and Engineering and School of Information Science, Presidency University, Bengaluru, 28th Mar 2024.
22. Keynote Speaker on 'Artificial Intelligence for National Security and Nation Building', National Seminar on 'Artificial Intelligence for National Security and Development', PSG College of Arts and Science, Coimbatore, 22nd Mar 2024.
23. Keynote Speaker, 'Artificial Intelligence for Teaching, Learning and Assessment', One Day Faculty Development Program on Artificial Intelligence and Machine Learning, Kongunadu Arts and Science College, 06th March 2024.
24. Invited Talk on 'AI Tools for eContent Development', "Guru Dakshata – Seven-Day Faculty Induction Program for Newly Recruited Faculty Members 2023-24", Avinashilingam University, 19th Feb 2024.
25. Invited Talk on 'Machine Learning using Excel for Economics', Two day workshop on Machine Learning for Economics, Dept of Economics, Avinashilingam University, 13th – 14th Feb 2024.
26. Invited Talk on 'Application of AI Tools in Teaching, Learning and Assessment', "Guru Dakshata – Seven-Day Faculty Induction Program for Newly Recruited Faculty Members 2023-24", Avinashilingam University, 27th Jan 2024.
27. Invited talk on the topic "Education in AI", Seven Day International Virtual Faculty Development Programme on 'Exploring Technological Advancements: A Voyage into Emerging Horizons', Department of Computer Science, Sri S.Ramasamy Naidu Memorial College, Sattur, Tamilnadu, 24th November 2023.
28. Guest lecture on "Prediction, Detection and Reduction - Magic of AI in Mechanical Applications" in the All India Seminar on "Interfacing Mechanical Engineering with Artificial Intelligence and Machine Learning", Institution of Engineers (India), Coimbatore Local Centre in association with Department of Mechanical Engineering, SNS College of Technology, Coimbatore, 11th October 2023.

29. Invited Talk on 'Responsive AI', IV Short term capacity building programme on 'AI in Education', AIU-AI-AADC, Avinashilingam University, Coimbatore, 19th – 30th June 2023.
30. Invited Talk on 'Demarcation of Wakes from SAR images of Rough Sea condition', Technical Session on SAR, Geospatial World forum 2023, Rotterdam, Netherlands, 2nd – 5th May 2023.
31. 'Machine Learning for Nutritional Genomics Studies', International Symposium on 'Convergence of Nutrigenomics, Gut Health, Precision Health and Big Data', Avinashilingam University for Women, Coimbatore , 17th April 2023.
32. 'Education Data Science', Intelligent Systems and Machine Learning Research Cluster, Athabasca University, Canada, 4th April 2023.
33. Plenary Lecture on "Role of Artificial Intelligence on Early Cancer Diagnosis", International Conference on Artificial Intelligence and Computer Vision : AICV'23, Marrakech, Morocco, 5th – 7th March 2023.
34. Lead Talk on "Role of Artificial Intelligence on Early Cancer Diagnosis", UGC Sponsored Two-Day International Conference on Innovations in the Sphere of Biological sciences : ISBS 2023, Avinashilingam University for Women, Coimbatore , 16th Feb 2023.
35. Plenary Lecture on 'Evolutionary Computing for Societal Challenges', 1st International conference on Artificial Intelligence: Advanced Topics and Social Issues: AIATSI 2022, 22nd – 23rd November 2022, Marrakesh, Morocco (Online).
36. 'Best Practices – Infrastructure and Learning resources, a Modern and Model Learning management system', National Seminar on Best Practices of Avinashilingam Institute fostering NAAC Assessment Criteria, 28th Sept 2022.
37. 'ICT based Exercises', Faculty Improvement Programme, Avinashilingam University for Women, Coimbatore, 5th April 2022.
38. 'e-Content Development', Airforce School, Coimbatore, 29th March, 2022.
39. 'Artificial Intelligence meets other Disciplines', AI Awareness programme for Faculty Members, Avinashilingam University for Women, Coimbatore, 8th Nov 2021.
40. 'Artificial Intelligence in Tamil Computing', International Workshop on 'Artificial Intelligence in Tamil', Avinashilingam University for Women, Coimbatore, 26th Oct 2021.
41. 'Digital Literacy & Effective use of Social Media', Capacity Building & Personality Development Program (PDP), Kongu Arts and Science College, Erode, 20th – 23rd Oct 2021.
42. Keynote Address on 'Reinforcement Learning for Intelligent Devices', The 2nd International Conference on Artificial Intelligence and Computer Vision (AICV'2021), Morocco. (Online)
43. 'Optimized Machine Learning approaches for Brain Computer Interface', two-day international Conference on Current Trends in Advanced Computing (ICCTAC 2021), Kristu Jeyanti College, Bengaluru, June 4th,2021.

44. 'Art of writing a Research Proposal', Faculty Development Programme on "Trends and Challenges in Current Research", Department of Software Systems and Computer Science (PG), KG College of Arts and Science from 19th April 2021 to 23rd April 2021.
45. 'Basics of Artificial Intelligence Applications', Virtual National Workshop on Artificial Intelligence and its Multi-Disciplinary Stances (AIMS-2021), Gandhigram Rural Institute, 22nd – 27th March, 2021.
46. 'Research Project proposal – a 360° View', Kongu Arts and Science College, Erode on 12th March 2021.
47. 'Research projects and Funding agencies' in three days Faculty Orientation Programme by D.G.Vaishnav College, Chennai on 12th February 2021.
48. 'Funding opportunities to promote innovative Research in Music', UGC-STRIDE sponsored 5 day training programme on Environmental Sustainability and Research Ethics Research Scholars, Avinshilingam University for Women, Coimbatore on 4th Feb 2021.
49. 'Application of Artificial Intelligence in Home Science', UGC-STRIDE sponsored 5 day training programme on Environmental Sustainability and Research Ethics Research Scholars, Avinshilingam University for Women, Coimbatore on 4th Feb 2021.
50. 'Research / Project Proposals preparation', IQAC Cell, Avinshilingam University for Women, Coimbatore on 9th Nov 2020.
51. 'Nuances of Research Proposals', Resource Person, Hindusthan college of Arts and Science, Coimbatore on 14th Oct 2020.
52. 'Artificial Intelligence based water management', Regional Training Programme on "Change you water, Change your Life through Artificial Intelligence (AI)", Avinashilingam University for Women, 26th Feb 2020.
53. 'Artificial Intelligence – A Research perspective', International Conference on Recent Advances in Communications and Computing Techniques, Women's Christian College, Chennai, 25th Jan 2020.
54. 'Significance of Artificial Intelligence for children with special needs', Guest Lecture at Department of Special Education, Avinashilingam University for Women, Coimbatore on 07th Jan 2020.
55. 'Art of Research Proposals writing', Resource Person, SDNB Vaishnav college for Women, Chennai on 30th Nov 2019.
56. 'Research / Project Proposals writing', Guest Speaker at Nirmala Annual Research Congress, Nirmala college for Women, Coimbatore on 27th Nov 2019.
57. 'Optimization using Computational Intelligence', Refresher Course on Computer Applications, Bharathiar University, Coimbatore, 23rd Sept 2019.
58. 'Research Funding Proposals in Computer Science', Guest Speaker at Faculty Development Programme, Sri Krishna Arts and Science College, Coimbatore, 29th Dec 2018.

59. 'Smart inclusive city projects and achievements in INDIA', Invited talk in Session CT2: Inclusive cities and the digital divide, Smart City Expo Casablanca, (SCE 2018), Casablanca, Morocco, 19th April 2018.
60. 'Defining accessible Smart cities based on closed and open source mobile apps', Opening talk in CREATHON Smart City Connect, SCE 2018, Casablanca, Morocco, 20th April 2018.
61. 'Applications of Computational Intelligence for Energy Optimization', Key note talk at International Conference on Renewable Energies Power Systems and Green Inclusive Economy 2018(REPS & GIE), University of Hassan II Casablanca, Morocco on 24th April 2018.
62. 'Inclusive Smart Cities for Specially abled people', Keynote Address in Mediterranean Symposium on Smart City Applications', (SCAMS 2017), Tangier, Morocco, 25th – 27th Oct 2017.
63. 'Computational Intelligence in Image Processing', National Conference on Image processing and Pattern Recognition, Department of Computer Science and Applications, Adhiparasakthi College of Arts and Science, Vellore on 30th Aug 2017.
64. 'Opportunities in Computer Science', Association function of PG and Research Department of Computer Science, Government Arts College, Coimbatore on 3rd March 2017.
65. 'eWaste Management', NSS Special camp Unit X, Avinashilingam University for Women, Thenampalayam, Thondamuthur, 20th Feb 2017.
66. 'Research Funding Proposals in Computer Science', Faculty Development Programme, Centre for Research and PG and Research Department of Computer Science, Dr. N.G.P. Arts and Science College, Coimbatore, 30th Jan 2017.
67. 'Nature Inspired Computing', Key Note Address in National Conference on Computational methods, Communication Techniques and Informatics- NCCCI 2017, 27th Jan 2017 , Gandhigram Rural Institute, Gandhigram.
68. 'Research proposal writing and Funding Agencies', Research Colloquium, Department of Computer Science, Kristu Jayanti College, Bangalore, 26th Nov 2016.
69. 'Big Data – an introduction', One day Seminar on Big Data and Data Analytics, Department of Information Technology, Sankara College of Science and Commerce, Coimbatore, 12th Aug 2016.
70. 'Research/Project proposal writing', Quality Improvement Program, Department of Computer Science, Christ University, Bangalore, 4th May 2016.
71. 'Eservices', NSS Special camp Unit X, Avinashilingam University for Women, Thenampalayam, Thondamuthur, 23rd March 2016.
72. 'Optimization using Particle Swarm Intelligence', AICTE sponsored short term course on "Soft Computing and its Applications", Coimbatore Institute of Technology, Coimbatore, 15th Feb 2016.

73. 'Data mining – Future Directions', UGC sponsored workshop on "Research Directions in Data mining", Gobi Arts and Science College, Gobichettipalayam, 22nd Jan 2016.
74. 'Women Empowerment through research', Workshop on Women in Engineering, IEEE TENCON 2015, Region 10 and University of Macau, Macau, November 1st – 4th, 2015.
75. 'Optimized Segmentation for MRI brain images', Technical track on Applications of Image Processing, IEEE TENCON 2015, Region 10 and University of Macau, Macau, November 1st – 4th, 2015.
76. 'Interdisciplinary Research project writing' in two days National Seminar on Interdisciplinary and Transdisciplinary Approach in Research by D.G.Vaishnav College, Chennai on 14th March 2015.
77. 'Research/Project proposal writing', Shrimathi Devkunvar Nanalal Bhatt Viashnav College for Women, Chennai on 24th Jan 2015.
78. 'Research proposal preparation', Sri Ramakrishna College of Arts and Science for Women, Coimbatore on 20th March 2014.
79. 'Research proposal preparation' in two days National Seminar on Technical report writing by D.G.Vaishnav College, Chennai on 27th – 28th Sept 2013.
80. 'Applications using Bio Inspired Computing' – Mini Symposia on 'Bio inspired Computing' in 2nd IEEE sponsored Cybernetics Summer School, CSS 2013 organized by VSB Technical University, Ostrava, Czech Republic on 19th – 22nd August 2013.
81. 'Advancements in Medical Engineering' – National level workshop on Research issues in Image processing organized by Department of Computer Applications, KSR College of Technology, Tiruchengodu on 05th Jan 2013.
82. 'Fuzzy Image processing' – National level workshop on Research issues in Image processing organized by Department of Computer Applications, KSR College of Technology, Tiruchengodu, 05th Jan 2013.
83. 'Web based Research databases and software' – Research Convention 2012, Avinashilingam University, Coimbatore, 15th Sept 2012.
84. Cooperation between IRIS, University of Stuttgart and Department of Computer Science, Avinashilingam University for Women, Coimbatore in the DST-DAAD PPP program, 'Investigating Global Warming effect based on texture of icy lake surface condition from Satellite Imagery', IRIS Colloquium, 16th May 2012.
85. 'Current projects, co operations and future developments on SAR', TerraSAR-X presentation, Corporate Astrium GEO-Information Services, Immenstaad, Germany, 15th May 2012.
86. 'Fuzzy Image Processing' – in the National seminar on "Intuitionistic Fuzzy in Image Processing" sponsored by CSIR conducted by Department of Mathematics, Kongu Engineering College, Perundurai on 02.03.2012.

87. 'Tools and Programming in Matlab' in two day Faculty Development programme to be organized by Kathir College of Engineering, Coimbatore during 17th – 18th Feb 2012.
88. 'Shakthi Office Show – an introduction' in Certificate Course on Tamil Computing organized by Department of Tamil, D.G.Vaishnav College, Chennai on 28th Jan 2012.
89. 'Shakthi Office Write – an introduction' in Certificate Course on Tamil Computing organized by Department of Tamil, D.G.Vaishnav College, Chennai on 27th Jan 2012.
90. 'Shakthi Office – an introduction' in Certificate Course on Tamil Computing organized by Department of Tamil, D.G.Vaishnav College, Chennai on 22nd Jan 2012.
91. 'Tamil websites and Tamil software – an introduction' in Certificate Course on Tamil Computing organized by Department of Tamil, D.G.Vaishnav College, Chennai on 21st Jan 2012.
92. 'Tamil websites – an introduction' in Certificate Course on Tamil Computing organized by Department of Tamil, D.G.Vaishnav College, Chennai on 20th Jan 2012.
93. 'Introduction to Funding Organizations' in two days National Seminar on Research methodology and project proposal preparation by D.G.Vaishnav College, Chennai on 14th – 15th Oct 2011.
94. 'Research proposal preparation' in two days National Seminar on Research methodology and project proposal preparation by D.G.Vaishnav College, Chennai on 14th – 15th Oct 2011.
95. 'Research Projects in Computer Science' in Refresher course in Computer Science organized by the Academic Staff College, Bharathiar University, Coimbatore on 24th May 2011.
96. 'Wavelet based Image denoising using Ant colony optimization technique for identifying ice class in SAR imagery' in IEEE UNB Chapter, University of New Brunswick, Saint John, Canada on 3rd May 2011.
97. 'MATLAB in Research' in the one day Research Development programme organized by Department of Computer Science, Gobi Arts and Science College, Gobichettipalayam on 2nd April 2011.
98. 'W5H of Research' in the Valedictory function of Student's Association organized by Saraswathi Thiagaraja College, Pollachi, 21st March 2011.
99. "A PIP into MATLAB Image Processing toolbox" in the 'Faculty Development Program' organized by MCA Department, Siddhaganga Institute of Technology, Tumkur, 21st – 22nd January, 2011.
100. "Preparation of Research Proposals" in the 'Faculty Development Program' organized by MCA Department, Siddhaganga Institute of Technology, Tumkur, 23rd - 24th October, 2010.
101. "Neural Networks in Image Processing" in the National Conference on Artificial Neural Networks jointly organized by DRDO and Dept. of Mathematics, Kongu Engineering College, Perundurai, 17th – 18th Sept, 2010.

102. "Image Processing using MATLAB" in the 'Faculty Development Program' organized by MCA Department, Siddhaganga Institute of Technology, Tumkur, 28th - 29th June, 2010.
103. "Cognitive Radios" in the 'Continuous Education Program for Scientists' organized by National Physical and Oceanographic Laboratory, Kochi, 12th August, 2009.
104. "Ship and Wake detection in SAR images" in the 'Continuous Education Program for Scientists' organized by National Physical and Oceanographic Laboratory, Kochi, 12th August, 2009.
105. "Image Processing using MATLAB" in the one day National workshop on MATLAB, DG Vaishnav college, 30th January, 2009.
106. "Virtual Reality" in a Seminar on 14th Sep' 01, Dr. SNS Rajalakshmi college of Arts and Science, Coimbatore.

Papers Presented at National / International Conferences (20)

1. 'Red Channel based IRIS segmentation for pupil detection', International Conference on Artificial Intelligence and Computer Vision : AICV'23, 5th – 7th March 2023.
2. 'Synergistic Fibroblast Optimization Based Improved Reinforcement Learning For Intelligent Assistive Device', 2017 IEEE Symposium Series on Computational Intelligence (SSCI 2017), Honolulu, Hawaii, USA, 27th – 29th Nov 2017.
3. 'Survey on Nature Inspired Algorithms for Smart city Applications', Mediterranean Symposium on Smart City Applications', (SCAMS 2017), Tangier, Morocco, 25th – 27th Oct 2017.
4. 'Hybrid Particle Swarm Optimization Algorithm Based on Cellular Organism Behavior for Solving Complex Non Linear Problems in Dynamic Environments', 18th International Conference on Researches in Science & Technology (ICRST) organized by World Association for Scientific Research and Technical Innovation, Rome, Italy, 9th- 10th June 2017.
5. 'Texture Feature Extraction of Infrared River Ice Images using Second-order Spatial Statistics', International Conference on Computer Vision, Image and Signal Processing, ICCVISIP 2013, World Academy of Science, Engineering and Technology, WASET, Barcelona, Spain, Feb 27th -28th 2013.
6. 'Impact of Technology use on Minority student's academic achievement', UGC sponsored National Seminar on India's Infrastructure-Challenges, Initiatives and Perspectives, Avinashilingam University for Women, Coimbatore, 15th – 16th Dec 2011.
7. 'A linear framework for identification of ship and its velocity estimation using SAR images' – International Conference on Computer Science, Engineering and Information Technology, CCSEIT 2011, 23rd – 25th Sept 2011 at M.S.University, Tirunelveli.

8. 'Imputation of missing data using Bayesian principal component analysis on TEC ionospheric satellite dataset' – IEEE international workshop on Sensor networks for Intelligent monitoring and Gathering, SNIGM 2011, Niagara falls, Ontario, Canada, May 8th – 11th, 2011.
9. 'Data Fusion by Intelligent Classifier Combination-A Review' – International Conference on Mathematics and Computer Science, ICMCS 2011, Loyola college, Chennai, 7th – 9th January, 2011.
10. 'A combined preprocessing scheme for texture based Ice classification from SAR images' – ACM-W Conference on Women in Computing, A2CWic'10, Amrita University, Coimbatore, 16th-17th Sept 2010.
11. 'Coupling optimal method of segmentation with restoration for target detection in SAR images' – IEEE International Conference on Computer and Automation Engineering, ICCAE 2010, Singapore, 26th Feb – 28th Feb 2010.
12. 'Quantitative performance evaluation on segmentation methods for SAR ship images' – International Conference of ACM Bangalore chapter, COMPUTE 2010, 22nd – 23rd January 2010.
13. Presentation of the ongoing research work during the National Symposium on Research Methodologies and Techniques, RV College of Engineering, Bangalore, 2nd-3rd June 2008.
14. 'Thinning of Tamil Characters for Feature Extraction' - – Poster presentation in National Conference on Information Systems and Computer Engineering-NICE 2007, RV College of Engineering, Bangalore, 5th-6th Oct 2007.
15. Secured Tamil handwritten Digital Contents using Watermarking Technique- National Symposium on Computer Vision and Image Processing 2006, SFR College for Women, Sivakasi.
16. Content Based Image Retrieval – National Conference on Emerging trends in Information Technology, 29th, 30th April 2005, Bishop Heber College, Trichy.
17. Women and IT- National level Seminar on Accessibility of IT for rural community on 24th Jan'03, Karpagam Polytechnic College, Coimbatore.
18. Geographic Information System – Refresher Course in Computer Science – Bharathiar University, Coimbatore.
19. Technology and the Environment – Need based Refresher Course on Environment Education – Bharathiar University, Coimbatore.
20. Computer Aided Teaching – 35th Orientation Course – Bharathiar University, Coimbatore.

Editorial ship

- Co-Editor, Springer publication in the Smart Innovation, Systems and Technologies Book series, 2020

- Editor, NOVA Science Publishers, New York, USA.
- Editor, GASCIAN Journal of Science and Applications.
- Editorial board member in International Journal of Information Technology, Control and Automation (IJITCA).
- Editorial board member in International Journal of Engineering and Advanced Technology (IJEAT).
- Co-Editor for the Special issue on ‘Advanced Multimedia Networking’ in WSEAS Transactions on Systems to be published in August 2012, Print ISSN: 1109-2777, E-ISSN: 2224-2678
- Editorial board member in Journal of Computational Intelligence And Electronic Systems, American Scientific Publishers, USA
- Editorial board member of Machine Learning and Applications: An International Journal (MLAIJ)

Reviewer of Journals (12)

- International Journal SPIE – Optical Engineering, USA.
- International Journal of Advanced Computing, India
- Defense Science Journal, India
- IST Press, Canada
- Educational Research and Reviews(ERR), Academic Journals,Victoria Island, Lagos
- World Scientific and Engineering Academy and Society – WSEAS
- EURASIP Journal on Advances in Signal Processing, Springer
- International Conference on Soft Computing, Artificial Intelligence - (SAI 2013), Dubai, UAE.
- British Journal of Mathematics & Computer Science, Sciencedomain International, UK.
- Journal of Neuro Computing, Elsevier.
- Elsevier Journal of Computer Methods and Programs in Biomedicine
- International Journal of Research and Scientific Innovation (IJRSI)

Membership in professional bodies (19)

- IEEE Member – Membership number : **92588501**
- IEEE Computational Intelligence Society Member

- IEEE Computer Society of India Member
- IEEE Green ICT Community Member
- ACM Membership No. - **4491456**
- Indian Academy of Social Sciences.
- Indian Science Congress
- Forum for Women IT Professionals
- Universal Professional Association
- International Association of Computer Science and Information Technology-IACSIT
- World Scientific and Engineering Academy and Society – WSEAS
- Advanced Computing Research Society – ACRS
- International Association for Engineers, Hong Kong – IAENG
- Senior Member in Universal Association of Computer and Electronics Engineers and Universal Association of Mechanical and Aeronautical Engineers, UACEE/UAMAE, Institute of Research Engineers and Doctors (Membership-Id SNM1002635)
- Life member, Center for Education Growth and Research, Newdelhi
- Member in Indo US Collaborative for Engineering Education (IUCEE), Research Cluster – Image Processing and Machine Learning, University of Massachusetts Lowell, USA
- Life member – Advanced Computing and Communications Society. India. Membership Id – L31194A1623495.
- Life member - World Association for Scientific Research and Technical Innovation (WASRTI).
- Member - Association of Scientists, Developers and Faculties (ASDF), Membership ID – 7637666591054004.

Awards / Prizes (15)

- **Best Paper Award**, 'Automated Detection of Hard Exudates for Diabetic Retinopathy Severity Assessment Using Detectron2 Framework', WUACD International Conference 2025 on 'One Health', Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, India, 6th – 7th Feb, 2025.
- **Best Paper Award**, 'Automatic Detection of Erythrocytes for Sickle Cell Disease Identification Based on YOLOv8n Network', *5th International Conference on Computational Intelligence (ICCI 2024)*, Sardar Vallabhbhai Patel National Institute of Technology, Surat, 24th – 26th Dec 2024.

- **‘Best Innovative product** – Anti-sleep Glass for Drivers’, One day Intra University Innovative Product Display Competition, Avinashilingam University for Women, 11th August, 2022.
- **‘நம் மண்ணின் படைப்பாளி விருது’**, விதைகள் வாசகர் வட்டம், Sathymanagalam, 17th July 2022.
- **‘பாரதி கண்ட புதுமைப் பெண்’**, Award by Women Development Cell, Gobi Arts College, Gobichettiplayam, 8th March 2022.
- **Best paper Award** for ‘Improved Noise Filtering Technique for Wake Detection in SAR Image Under Rough Sea Condition’, 2021 IEEE World AllIoT Congress (AllIoT). Seattle, 12th May 2021.
- **Best paper Award** for ‘Cost Analysis of the Optimized Two Phase Retrieval Queueing System in Call Centers’, International Conference on Data Analytics & Computational Mathematics. Coimbatore, 29th Feb 2020.
- **Best paper Award** (Mobile Computing Track) for ‘Wireless based CO₂ Monitoring system for Mushroom Cultivation’, International Conference on Research and Innovations in Computational Intelligence (RICI 2019), 4th Feb 2019, Ramakrishna Women’s college, Coimbatore.
- **Best paper Award** (Machine Learning Track) for ‘Motility Factor based Optimized Q-Learning Algorithm for intelligent Walking Cane’, International Conference on Research and Innovations in Computational Intelligence (RICI 2019), 4th Feb 2019, Ramakrishna Women’s college, Coimbatore.
- **Best Paper Award** for Paper Presentation, “A Study on Node Placement Strategies in Wireless Sensor Networks”, International conference on Social Mobile Analytics Cloud, International Journal of Theoretical & Applied Science, Special Issue released for International Conference on SMAC – Reshaping the future, Avinashilingam University for Women, Coimbatore, Feb 9th 2018.
- **First prize for Paper Presentation**, “Energy Consumption Analysis in WSN Based on Node Placement Strategies”, 1st International Conference on Information Security

Risks – Techno Legal Management TeLIMISR-2018, Vivekanandha Institute of professional Studies, New Delhi, May 21st & 22nd 2018.

- **‘Special Award** – Technology for Social Applications – Computer Assistive Technology for Differently abled students’, by Integrated Intelligent Research Group, Chennai, 18th Jan 2018.
- **‘ஆசிரியச்செம்மல்’, Award** bestowed by ‘Dr.ராதாகிருஷ்ணன் அறக்கட்டளை’, Chennai, 5th Sept 2017.
- **Best paper award** for the paper titled ‘Hierarchical Clustering in Web Mining’ – in National conference on “Recent Research Trends in Information Technology”(NCRIT-2008), RV College of Engineering, Bangalore, 7th-8th March 2008.
- **Best poster presentation award** for the paper titled ‘Thinning of Tamil Characters for Feature Extraction’ in National Conference on Information Systems and Computer Engineering-NICE 2007, RV College of Engineering, Bangalore, 5th-6th Oct 2007.

Personal Information

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Coimbatore – 641 041, Tamilnadu, India

Habitations

- Google Certificate on ‘GenAI for Educators’, Dec 2024
- M.Sc. Applied Psychology, Bharathiar University, March 2022
- HarvardX Certificate on ‘Leaders of Learning’, March 2021
- Certificate of Academic Leadership, Ureka Education Group, UK, March-21
- Ph.D in Computer Science, Avinashilingam University for Women, Feb 2009
- M.Phil. (Computer Science), Avinashilingam University for Women, May-1998
- B.Sc. (Mathematics) & MCA, Gobi Arts College, Bharathiar University, May 1990 & 1993

Professional Activity

- Coordinator, [Centre for Machine Learning and Intelligence](#), Oct 2023 – till date
- Programme Coordinator, M.Sc. Artificial Intelligence

- Programme Coordinator, B.Sc. Augmented Reality and Virtual Reality
- Coordinator, DST-CURIE-AI April 2019 – Sept 2023
- Coordinator, Avinashilingam Artificial Intelligence (A2I) Club
- Director, GREENTic India Chapter, Academic Collaboration with University of HASSAN II, Casablanca, Morocco, 2019
- Consultant (Research & Development), Kristu Jayanti College, Bengaluru, 2018
- IEEE Women in Computing, Computer Society of INDIA Council, 2015

Online Presence

Official website –	http://avinuty.ac.in/maincampus/uploads/dept/science/computer/staff/
CMLI Website -	https://avinuty.ac.in/cml-research#
Website -	www.sfoalgorithm.info
ORCID -	orcid.org/0000-0002-5786-4497
ResearcherID -	G-2858-2010
Scopus -	https://www.scopus.com/authid/detail.uri?authorId=36069850000
Research Gate -	https://www.researchgate.net/profile/Parthasarathy_Subashini
Google Scholar -	https://scholar.google.pt/citations?user=subashini_aB94MjcAAAAJ
LinkedIn -	https://www.linkedin.com/in/p-subashini-14a72119/
Vidwan -	https://avinuty.irins.org/profile/192811