

East Point Campus – "Jnanaprabha", Virgo Nagar Post, Bangalore-560049, Karnataka, India Wehsite Contents



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## **Faculty**

# Dr. Udayabalan Balasingam

Associate Professor – ISE, NAAC Main Coordinator

East Point College of Engineering & Technology

### Profile\*



Dr. Udayabalan Balasingam holds a Ph.D. in the title of Ensemble based Recommendation System for Personalized Predictions from NIT Tiruchirappalli, M.E. degree in Computer Science and Engineering from Anna University, Chennai and B.E. degree in Computer Science and Engineering from Shanmugha College of Engineering (SASTRA) affiliated to Bharathidasan University, Tiruchirappalli.

He has earlier worked at MAM College of Engineering, Tiruchirappalli in various capacities from a Lecturer to the First year Chief Coordinator.

A dedicated, passionate teacher and a Coordinator with more than 20 years of experience in Academic and Administrative roles and is a member of Institute of Engineers (IE) and Computer Society of India (CSI). He has published more than 20 publications in Peer reviewed and refereed Journals, which are listed in "Web of Science (WOS)" indexed Journals, SCOPUS indexed Journals and conferences.

### **Publications**

#### **Books**

② Udayabalan, B., et. al.: "Introduction to AI and Machine Learning", Scientific International Publishing House, ISBN: 978-93-5625-238-7

## **Book Chapter**

☑ Udayabalan, B., et. al.: "Hybrid Machine Learning Techniques for Secure IoT Applications", Bentham Science Publishers Ltd., ISBN: 978-981-5136-18-0 (Print), ISBN: 978-981-5136-17-3 (Online), (WoS, Scopus)

https://benthambooks.com/book/9789815136173

# **Journals**

- Udayabalan, B., Gopalan, N.P.: "Feature Augmentation based Hybrid Collaborative Filtering using Tree Boosted Ensemble", Informatica, vol 43, pp. 477-483, 2019, (WoS, Scops).
- Udayabalan, B., Gopalan, N.P.: Solving the Cold-Start Problem Using User Profile Based Bagged Ensemble Model for Movie Recommendation. International Journal of Advanced Science and Technology, Vol. 29, Issue- 8, pp. 4686-4693, 2020, (WoS, Scopus)
- Udayabalan, B., et. al.: A comprehensive survey of the security issues, attacks and trust & reputation-based solutions towards VANET. Neuro Quantology, Vol. 20, Issue- 7, pp. 3519-3536, August 2022. (Scopus)
- Udayabalan, B., Gopalan, N.P.: "Heterogeneous Ensemble based Collaborative Filtering (HECF) Model for Movie Recommendation", International Journal of Advances in Electronics and Computer Science, Vol. 6, Issue-1, pp. 63-66, January 2019



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- Udayabalan, B., Gopalan, N.P.: Novel Context Aware Drift Detection based Recommendation System to Handle Changes in User Preference, HINDAWI Journal of Engineering, (SCI/WoS/SCOPUS) Accepted ISSN: 2314-4912
- Udayabalan, B., et. al.: Meta-Heuristic optimization approach for classification of COVID variants from large datasets. HINDAWI, (SCI/WoS/SCOPUS) (accepted)

#### Conferences

- Udayabalan, B., et. al.:, "Aspect Oriented Sentiment Analysis on Customer Reviews on Restaurant using LDA & BERT Method", 3rd International Conference on Adaptive Computational Intelligence (ICACI-2022) with Springer Nature, (SCOPUS), Dec 2022
- Udayabalan, B., et. al.: "A Deep Convolutional Neural Network Approach to Sign Alphabet Recognition", In Proc. of National Conference on Engineering Innovation in Emerging Technologies (NCEIET-2021) in association with International Journal of Scientific Research in Science, Engineering and Technology, East Point College of Engineering and Technology, Bengaluru, July 2021, Print ISSN:2395-1990 | Online ISSN:2394-4099
- Udayabalan, B., et. al.: "Automated Bus Crowd Management", In Proc. of International Conference on Engineering Innovation in Emerging Technologies (INCEIET-2022) in association with International Journal for Research in Engineering Application & Management (IJREAM), East Point College of Engineering and Technology, Bengaluru, July 2022, ISSN: 2454-9150 Vol08, Issue-10, Jan 2023 3.
- Udayabalan, B., et. al.: "Sign Language Detection using Image Processing and Deep Learning", In Proc. of International Conference on Engineering Innovation in Emerging Technologies (INCEIET-2022) in association with International Journal for Research in Engineering Application & Management (IJREAM), East Point College of Engineering and Technology, Bengaluru, July 2022, ISSN: 2454-9150 Vol-08, Issue-10, Jan 2023 4.
- Udayabalan, B., et. al.: "Facemask Detection Using Machine Learning Techniques", In Proc. Of International Conference on Engineering Innovation in Emerging Technologies (INCEIET-2022) in association with International Journal for Research in Engineering Application & Management (IJREAM), East Point College of Engineering and Technology, Bengaluru, July 2022, ISSN: 2454-9150 Vol-08, Issue-10, Jan 2023 5.
- Udayabalan, B., et. al.: "Data Mining System for Automated Web Usage using KNN Classification Method", In Proc. of International Conference on Engineering Innovation in Emerging Technologies (INCEIET-2022) in association with International Journal for Research in Engineering Application



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- & Management (IJREAM), East Point College of Engineering and Technology, Bengaluru, July 2022, ISSN: 2454-9150 Vol-08, Issue-10, Jan 2023
- Udayabalan, B., et. al.: "A ML Technique for Analysing and Classifying Rice Varieties Using Digital Image Processing", In Proc. of National Conference on Engineering Innovation in Emerging Technologies (NCEIET-2021) in association with International Journal of Scientific Research in Science, Engineering and Technology, East Point College of Engineering and Technology, Bengaluru, July 2021, Print ISSN:2395-1990 | Online ISSN:2394-4099
- Udayabalan, B., "Secure Enhanced Authentication Protocol using Backward Hash Chain for Mobile Systems", In Proc. of National Multiconference on Innovative Computing Technology '11", Tagore Engineering College, Chennai, April 2011.

#### **Patent**

- Udayabalan, B., et. al.: "Identification of Plant Leaf Disease Prediction using Machine Learning Algorithms", Application No. 202141040434 A, Publication Date: 10.09.2021 2.
- Udayabalan, B., et. al.: "A Novel Method for Prediction of Diabetes using Support Vector Machine", Application No. 202141041021, Publication Date: 24.09.2021 3.
- Udayabalan, B., et. al.: "ML & Big Data based Cloud Computing Construction Assessment System for Android Applications", Application No. 202141044813, Publication Date: 03.10.2021 4.
- Udayabalan, B., et. al.: "Heart Patient Scanning and Monitoring using Machine Learning" Application No. 202241043693, Publication Date: 30.07.2022

# **Achievements / Awards / Recognitions**

- Guest Lecturer at NIT Tiruchirappalli for M.Tech
- First year Chief Coordinator
- NAAC Main Coordinator
- Completed NPTEL course in C Programming and Assembly Language with the Score of 66%
- Participated more than 20 workshop and faculty development program in AICTA, IIT, NIT, CDAC, ICTACT, NITTTR, WIPRO, VIT and etc.
- Acted as **Resource Person** in 2 Workshop and one Webinar
- Acted as **Session Chair** for International Conference and National Conferences
- Acted as an External Experts in the interview for faculty conducted in SEA
   College of Engineering and Technology
- Acted as DCS representing VTU



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Prepared University Question Paper for VTU
Worked as a coordinator for many events such as International Conference, National Conference, FDP, Workshop and Webinar and etc.