

Dr.M.Usha , M.Sc., M. Phil., Ph.D.

Dean – School of Computational Sciences

Area of Specialization: Natural Language Processing, Data Mining

CAREER PROFILE

Total Teaching Experience: 20 Years

Research guidance: M.Phil. Produced: 12

PAPERS PUBLISHED IN JOURNALS

1. M Usha, **An IoT and Data Mining-Based Tool for Early Identification of Speech Disorders in Children Using Advanced Algorithms**, © The Author(s), under exclusive license to Springer Nature Switzerland AG **2025** S. Rajagopal et al. (Eds.): ASCIS 2024, CCIS 2424, pp. 375–384, 2025.
2. Usha M, **Dysarthria Speech Disorder Assessment Using Genetic Algorithm (GA)-Based Layered Recurrent Neural Network**, © The Author(s), under exclusive license to Springer Nature Switzerland AG 2024, : ICICSD 2023, CCIS 2121, pp. 282–291, **2024**
3. Usha.M, Sankari.L (2022), **Neural Network Based Assessment of Dysarthria Speech Disorder using Social Robotics**, Webology (ISSN1735- 188X), Volume 19, Number Pages 6828 - 6836
4. Usha.M, Sankari.L (2019), **“Journal of Advances research in dynamical and control systems”** entitled “Assessment of Dysarthric Speech Disorder using MFCC and Hidden markov Model”.
5. Usha.M, Sankari.L (2018), Published in “International Journal of Engineering and Computer Science” entitled **“Analysis of speech disabled people with dysarthria using TORGO Database”**.
6. Usha.M, Sankari.L (2016), “International Journal of Computer Science & Technology” Entitled **“speech Therapy Models for Disabled Children using Data Mining Techniques – A Review”**.

PAPERS PRESENTED AT CONFERENCES

1. **‘3way Decision Making Model Using Rough Set In Data mining’**, National Conference Conducted By Kg College Of Arts & Science, Saravanampatti. 07/02/2015.

2. **“A Surveillance Argument Scheme For Mobile Ad Hoc Networks”** - Published In On International Conference Conducted By Dr.G.R Damodaran College Of Science, 11/02/2016.
3. **“Effective Key Management In Dynamic Wireless Detector Network’**, International Conference Conducted By Dr.R.V.Arts And Science College, 12/02/2016-13/02/2016.
4. **“Modeling And Diagnosing The Cardio-Vascular System Using Neural Networks”**, National Conference Conducted By Dr.N.G.P Arts And Science College, Coimbatore. 27/09/2012.
5. **“Prediction System Using Id3 Algorithm In Data Mining”**, National Conference Conducted By Dr.N.G.P Arts And Science College, Coimbatore. 27/09/2012.
6. **“Towards A Social Network Approach For Monitoring Insider Intimation To Security”**, National Conference Conducted By Kg College Of Arts And Science
7. **“Protecting tamil handwritten documents using water marking techniques”** - presented in National Conference conducted by Sri Vasavi College Erode, on September 2009.
8. **“Secure handwritten text documents using watermarking techniques”** - presented in National Conference conducted by Dayananda Sagar College of Engineering, Bangalore, on November 2009.
9. **“Recognition of Tamil characters using ANN”** - presented in National Conference organized by Bharathiar University, Coimbatore on Nov 2008 and won best paper award
10. **“Comparative study on online character recognition using and without using neural networks”** - presented in International Conference conducted by FISAT, Angamaly, Cochin on Sept 2008.
11. **“Online character recognition”** - presented in National Conference conducted by Sri Vasavi College Erode, on march 2008.
12. **“Space monitoring using artificial neural networks”** - presented in National Conference conducted by Dayananda Sagar College, Bangalore on Nov 2007.
13. **“Online character recognition using SOM”** - presented in National Conference conducted by St.Joseph college, Trichy on Feb 2005.

BOOK PUBLISHED

1. **“Mastering Web Design”** Book published by Dr.M.Usha, Dr.V.Bharathi , Ms.G.Gokilavani on April 2025
2. **“Digital Fundamentals and Architecture”** book published by Ms.M.Usha, Mr.S.Boopalan and Ms.V.Loganayaki on 2018.
3. **‘Data Mining and its Applications’** book published by Ms.M.Usha, Ms.V.Loganayaki, Ms.J.Gayathri on 2019.

ONLINE CERTIFICATION COURSE COMPLETED

1. NPTEL Online certification course “Programming in Python” has completed on May 2024
2. NPTEL Online certification course **“Database Management System”** has completed on September 2024.
3. Online certification course on Python 3.4.3 offered by Spoken tutorial project, IIT Bombay on April 2020
4. More than 50 Certificate from Coursera

FUNDS RECEIVED FROM VARIOUS GOVERNMENT AGENCIES

1. Acted as Coordinator for THREE DAY PROGRAMME ON **“Hands on Training for Self Help Group Rural Women for Making Biodegradable Carry Bags and Other Items using Waste materials.”** Catalysed and supported by TNSCST under the Scheme Dissemination of Innovative Technology (DIT) 05.01.2022 to 07.01.2022: Capacity : 50 Self Help Group Rural Women
2. Acted as Coordinator in ONE DAY PROGRAMME ON **“Popularization of Science among school children Activities on Health and Hygiene”** Catalysed and supported by TNSCST under the Scheme Popularization of Science 18.10.2023 Capacity: 100 Government School Students benefited from this project
3. Acted as Coordinator for **National Mathematics Day Celebrations** Sponsored by TNSCST and got Best Project Coordinator Award during December 2024 to February 2025.
4. Acted as Coordinator for ATAL Sponsored 6 Days FDP on **‘Explainable AI: Bridging the gap between AI and Human Understanding’** from 18.08.2025 to 23.08.2025 with the grant Rs. 3.50,000.
5. Finalized and Presented DST Proposal on **Wrist Band – A Medical Alert System for Rural Women** on August 8, 2018 at Indian National Science Association (INSA), New Delhi

CONFERENCES ORGANIZED

1. Coordinator of National Conference in Innovative Trends in Information Technology (NCITIT14), KG College of Arts and Science, Coimbatore on 8th February 2014.
2. Coordinator of National Conference in Innovative Trends in Information Technology (NCITIT15), KG College of Arts and Science, Coimbatore on 7th February 2015.
3. Organizing committee member in International Research conference on Advances in Computer Science and Information Technology, KG College of Arts and Science on 10th February 2018.
4. Organising Committee member in International Conference on Multidisciplinary Academic Research and Global Innovations held on February 2020
5. Convenor in the International Conference on International Conference on Emerging Technologies – Driving Industry 4.0 for Sustainable Development (ICETDISD 2K25), organized by School of Computational Sciences, KG College of Arts and Science on 13th September 2025.

RESPONSIBILITIES IN COLLEGE

Apart from regular teaching, the various additional responsibilities have taken. To mention a few,

- Institute Innovation Cell - IIC President from 2023 onwards
- Chief Superintendent for Bharathiar University Theory Examinations.
- Acted as a Conference Convenor for the National and International Conferences in our college.
- Research Coordinator.
- IQAC member
- Member in Admission Cell.
- Technical Training for final year students with respect to placements.
- Project Coordinator