

Faculty Profile of Dr. E. Chandra



Dr. E. Chandra
Professor & Head
Department of Computer Science

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Mobile No: 9894255832

Research Area

- Speech Processing
- AI & Machine Learning
- Neural Networks

Education & Career

Education

Ph. D.

Subject : Computer Science

Institution : Alagappa University

Affiliated University : Alagappa University

Year of Award : 2007

M.Phil.,

Subject : Computer Science

Institution : Sri Vasavi College

Affiliated University : Bharathiar University

Year of Award : 1997

M. Sc.,

Subject: Computer Science

Institution : Avinashilingam University

Affiliated University : Avinashilingam University

Year of Award : 1994

Career**At Bharathiar University (Reverse Order)**

Professor & Head : April 2015 to Till Date

Past Experience

Professor & Director : from Nov 2011 to April 2015 at Dr S.N.S Rajalakshmi College of Arts & Science

Professor : from Jun 2011 to Nov 2011 at Kampan Arts & Science College

Director & Professor : from Feb 2007 to Nov 2011 at D J Academy for Managerial Excellence

Assistant Professor & HOD : from Jul 2001 to Feb 2007 at D J Academy for Managerial Excellence

Lecturer : from Jan 1995 to Jul 2001 at Sri Ramakrishna college of Arts & Science for women

Awards

1. Best oral presenter award by Tianjin Polytechnic University, China in 2018
2. Outstanding person award by Marquis, USA in 2014
3. Active Participation in all the activities award by CSI Coimbatore Chapter, India in 2011

Membership

1. Life Member on Computer Society of India
2. Life Member on Society of Statistics and Computer Applications of India
3. Senior Member on ACM with Digital Library
4. Life Member on International Association of Engineers
5. Life Member on International Association of Computer Science and Information Technology

Visits

1. Presented a paper in International Conference on Electronics and Electrical Engineering Technology, Tianjin Polytechnic University, Tianjin, China from 19.09.2018 to 21.09.2018.
2. Invited talk at Guilin University, Guilin, China on 27.11.2006 to 30.11.2006.

Collaborators

Others

Projects

Funded Projects (National Level)

- [Ongoing-02](#)
 - [Completed-02](#)
1. Development of a neuro-fuzzy system for IOT sensor data to identify stomach cancer diseases based on exhaled gas from humans
Dr.E.Chandra / Dr.R.Porkodi/Dr.P.B.Pankagavalli
RUSA 2.0
2 years(2020-2022)
Rs. 12.89 (In Lakhs)
 2. To Conduct a Survey of women population in selected area and create a directory of breast and cervical cancer patients
Dr E.Chandra / Dr Kamalaveni / Dr Sivasamy
RUSA 2.0
2 Years (2020 – 2022)
Rs. 8.88 (In Lakhs)
-
1. Advanced Mobile Application based Speaker Recognition using Age and Gender
Classification for Forensic Investigation
Dr.E.Chandra
RUSA
6 months(Feb 2020-June 2020)
Rs.8 (In Lakhs)
 2. Diverse Sub-band Adaptive Speech Enhancement for Hearing Aids
Dr.E.Chandra
UGC
1 year(2015-2016)
Rs.60,000

Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Ongoing Consultancy Project Informations

Completed Consultancy Project Informations

Research Guidance

- [Post Doc.](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.](#)

Ongoing

Title

Name

Completed

Title

Name

Ongoing

1. Poornima.E

Title:Development of a Neuro-Fuzzy System for IOT Sensor Data to Identify Stomach

Cancer Diseases Based on Exhaled Gas from Humans

Status:Ongoing

2. K.Karthika

Title:Advanced Mobile Application based Speaker Recognition using Age and Gender Classification for Forensic Investigation

Status:Ongoing

3.Sujiya.S

Title:

Status:Ongoing

4.Poovarasan.S

Title:An Artificial intelligence supported speech enhancement for hearing aids

Status:Ongoing

Completed

1. K.Manikandan

Title:A Novel Fuzzy Logic based Model for Text Dependent Speaker Identification and Verification

Year:2018

2. P.Ajitha

Title:A Novel Approach to Detect Outliers in Distributed Environment for Knowledge Discovery

Year:2018

3.R.Kumuthaveni

Title:A Novel Speech Emotion Recognition System using Fuzzy Vector Quantization

Year:2018

4.C.Sunitha

Title:Improved Weighted Vector Quantization based Speaker Recognition using Wavelet and Cepstral Coefficient for Feature Extraction

Year:2017

5.S.Karpagavalli

Title:A Novel Sub word Unit Model for Tamil Speech Recognition

Year:2016

6.A.Akila

Title:A Novel Adaptive Spectral Fragmentation Approach for Tamil Speech

Recognition

Year:2014

7.Francis Xavier Christopher

Title:Determining Software Requirements Stability based on Complexity Point Measurement Adopting Multi-Criteria Fuzzy Approach Augmenting Quality Model

Year:2014

8.Nandhini

Title:An Efficient rule based Predictive Model with Optimized Attribute Selection

Year:2012

9.K.Kanagalakshmi

Title:A Novel Shift-Phase Transformation based Cancelable and Irrevocable Fingerprint Biometric Template Generation Technique

Year:2012

Ongoing

Completed

1.S.Jeevitha

Title:A Novel Speech Enhancement Techniques and Noise Reduction using Wavelet in Conference call

Year:2018

2.R.Geetha

Title:An Ensemble Classifier based Accident Detection Model

Year:2018

3.S.Sujiya

Title:Speech Recognition using Hybrid Technology of EWTLBO and HMM

Year:2014

Ongoing

Sample Data.

Completed

Sample Data.

Research Publication

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books / Chapters](#)
- [Database](#)

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[A lightweight encryption scheme using chebyshev polynomial maps](#)

[S. Sujiya , Dr.E.Chandra](#)

[Optik,Elsevier,240, 166786 \(2021\).](#)

[Convolutional and deep neural networks based techniques for extracting the age-relevant features of the speaker](#)

[K.Karthika, Dr.E.Chandra](#)

[Journal of Ambient Intelligence and Humanized Computing ,Springer, 2021\(online first\)](#)

[Speech and speaker recognition: A review](#)

[K.Karthika, Dr.E.Chandra](#)

International Journal of Scientific & Technology Research, 08, 938- 944 (2019).

A review on speaker verification: challenges and issues

S.Sujiya , Dr.E.Chandra

International Journal of Scientific & Technology Research, 08, 956-960 (2019).

Comparative analysis of various noise types using empirical mode decomposition based hurst exponent techniques

S.Poovarasam,Dr.E.Chandra

International Journal of Scientific & Technology Research, 08, 1693- 1696 (2019).

Speech enhancement using sliding window empirical mode decomposition and hurst-based technique

S.Poovarasam, Dr.E.Chandra

Archives of Acoustics, 44, 429-437(2019).

Entropy based Local Binary Pattern (ELBP) feature extraction technique of multimodal biometrics as defence mechanism for cloud storage

B. Sree Vidya, Dr.E. Chandra

Alexandria Engineering Journal, 58, 1-12(2019).

Fuzzy Weight with voronoi Centroid Vector Quantizer (FW-VCVQ) for emotional classifier with tamil speech signals

R.Kumuthaveni, Dr.E. Chandra

International Journal of Pure and Applied Mathematics, 119, 299-324 (2018).

Iterative Conditional Entropy Kalman filter (ICEKF) for noise reduction and Neuro Optimized Emotional Classifier (NOEC)

R.Kumuthaveni, Dr.E. Chandra

Cluster Computing, 22, 1-17 (2018).

Voice based wheel chair movement using n-average wavelet algorithm

Banumathi.A.C, Dr.E. Chandra

International Journal of Science and Research, 07,215-219 (2018).

A comparative analysis of feature extraction techniques for speaker Verification

S.Sujiya, Dr.E.Chandra

Interiencia Journal, 43, 245-264 (2018).

Multimodal biometric hash key cryptography based authentication and encryption for advanced security in cloud

B.Sree Vidya , E.Chandra

Biomedical Research,Special Issue, 506-516 (2018).

Digital signature representation using SOM method in OCR technique

R.Ravi Chakravarthi, Dr.E.Chandra

International Journal of Latest Engineering and Management Research, 02, 1-11 (2017).

An enhanced BAT algorithm with simulated annealing method for speech emotion recognition

R.Kumuthaveni , Dr.E. Chandra

Journal of Advanced Research in Dynamical and Control Systems, Special Issue,125-138 (2017).

A review on speaker recognition

S.Sujiya, Dr.E.Chandra

International Journal of Engineering and Technology, 09, 1592-1598 (2017).

Evaluation of sound classification using modified classifier and speech enhancement using ICA algorithm for hearing aid application

N.Shanmugapriya, Dr.E. Chandra

ICTACT Journal on communication technology, 7, 1279-1288 (2016).

An efficient speaker recognition system by employing BWT and ELM

A. Indumathi,Dr.E.Chandra

BVICAM's International Journal of Information Technology, 8, 983-989 (2016).

Pitch based feature extraction and twinning classification of gender using speech signal

A.Indumathi,Dr.E.Chandra

International Journal of Signal and Image Processing Issues, 01, 11-19 (2016).

Stop consonant - short vowel classification for tamil speech utterances

S. Karpagavalli, Dr.E.Chandra

International Review on Computers and Software, 11, 67-72 (2016).

Recognition of tamil syllable using vowel onset points with production perception based features

S. Karpagavalli, Dr.E.Chandra

ICTACT Journal on soft Computing, 06, 1163-1170 (2016).

Speaker identification using a novel prosody with fuzzy based hierarchical decision tree approach

K. Manikandan, Dr.E.Chandra

Indian Journal for Science and Technology,09, 1-6 (2016).

A review on sub-word unit modeling in automatic speech recognition

S. Karpagavalli, Dr.E.Chandra

IOSR Journal of VLSI and Signal Processing, 06, 77-84 (2016).

A review on automatic speech recognition architecture and approaches

S. Karpagavalli, Dr.E.Chandra

International Journal of Signal Processing, Image Processing and Pattern Recognition, 09, 393-404 (2016).

Speaker recognition using MFCC and improved weighted vector quantization algorithm

C.Sunitha ,Dr.E.Chandra

International Journal of Engineering and Technology, 07, 1685- 1692 (2015).

A hierarchical approach in tamil phoneme classification using support vector machine

S. Karpagavalli, Dr.E.Chandra

Indian Journal of Science and Technology, 08, 1-7 (2015).

Noise estimation using standard deviation of the frequency magnitude spectrum for mixed non-stationary noise

A.Indumathi,Dr.E.Chandra

ICTACT-Journal on Communication Technology, 06, 1218-1222 (2015).

Efficient hybrid speech enhancement using PCA and ANFIS for hearing aids

N.Shanmugapriya, Dr.E. Chandra

International Journal of Applied Engineering Research, 10, 34625-34631 (2015).

Speaker identification using relevance vector machine

C. Sunitha, Dr.E.Chandra

International Journal of Applied Engineering Research, 10, 28389-28399, (2015).

Speaker recognition using MFCC and improved weighted vector quantization algorithm

C. Sunitha, Dr.E.Chandra

International Journal of Engineering and Technology, 07, 1685- 1692 (2015).

Speaker recognition using cepstral coefficient and machine learning technique
C. Sunitha, Dr.E.Chandra
Research Journal of Applied Sciences, Engineering and Technology,11, 983-
987(2015).

An approach to evaluate object oriented case structure using score
Carding framework
P. Edith Linda,Dr.E.Chandra, Dr. J. Sharmila
International Journal of Software Engineering and its Applications,09, 9-16(2015).

An algorithm for detecting outliers in distributed environment
P.Ajitha, Dr.E.Chandra
International Journal of Applied Engineering Research,10,1519- 1523(2015).

A survey on outliers detection in distributed data mining for big data
P.Ajitha, Dr.E.Chandra
Journal of Basic and Applied Scientific Research,05, 31-38(2015).

Novel shift-phase transformation based cancelable and irrevocable biometric
template generation for fingerprints
K.Kanagalakshmi, Dr.E. Chandra
International Journal of Computer Applications, 89, 41-53(2014).

A study on speaker recognition system and pattern classification techniques
Dr.E.Chandra, K.Manikandan, M.S.Kalaivani
International Journal of Innovative Research in Electrical, Electronic
Instrumentation and Control Engineering, 2, 963- 967, 201

Structured SVM for speech recognition using kernel derivative model
V. Malarmathi, Dr.E.Chandra
International Journal of Engineering Research and Technology, 03, 2854-
2857(2014).

A proportional study on feature extraction method in automatic speech
recognition system
Dr.E.Chandra, K. Manikandan, M.Sivasankar
International Journal of Innovative Research in Electrical, Electronic
Instrumentation and Control Engineering, 02, 772-775 (2014).

Log-gabor orientation with run-length code based fingerprint feature extraction
approach

Dr. K. Kanagalakshmi, Dr.E.Chandra

Global Journal of Computer Science and Technology, 14, 1-10(2014)

A thorough investigation on speech enhancement in hearing aids

N. Shanmugapriya, Dr.E. Chandra

International Journal of Computer Applications, 99, 9-12 (2014).

Comparative study of endpoint detection algorithms suitable for isolated word recognition

A. Akila, Dr.E. Chandra

BVICAM'S International Journal of Information Technology, 06, 764- 766 (2014).

Performance enhancement of syllable based tamil speech recognition system using time normalization and rate of speech

A. Akila, Dr.E. Chandra

CSI Transactions on ICT,02, 77-84 (2014).

Slope finder – A distance measure for DTW based isolated word speech recognition

A. Akila, Dr.E. Chandra

International Journal of Engineering and Computer Science, 02, 3411-3417(2013).

Isolated tamil word speech recognition system using HTK

A. Akila, Dr.E. Chandra

International Journal of Computer Science Research and Applications,03, 30-38(2013).

A novel technique for cancelable and irrevocable biometric template generation for fingerprints

K. Kanagalakshmi, Dr.E. Chandra

Global Journal of Computer Science and Technology Graphics & Vision, 13, 1-11(2013).

A novel finger print recognition using minutiae features

S.Uma Maheswari, Dr.E. Chandra

International Journal of Engineering Science and Technology, 02, 413-418(2013).

Survey on speech synthesis

A. Indumathi, Dr.E. Chandra

Signal processing: An International Journal, 06, 140- 145(2012)

Isolated tamil digit speech recognition using template-based and HMM-based approaches

S.Karpagavalli, R.Deepika, P.Kokila, K.U. Rani, Dr.E. Chandra

Global Trends in Computing and Communication Systems,270,441-450(2012).

An overview – speech recognition and speech synthesis algorithms

Dr.E.Chandra,A.Akila

International Journal of Computer Technology and Applications, 03, 1426-1430 (2012).

Text to speech: A simple tutorial

D.Sasirekha, Dr.E.Chandra

International Journal of Soft Computing and Engineering, 02, 275-278(2012).

Novel complex conjugate-phase transform technique for cancelable and irrevocable biometric template generation for fingerprints

K.Kanagalakshmi, Dr.E.Chandra

International Journal of Soft Computing and Engineering, 09, 426-436(2012).

Frequency domain enhancement algorithm based on log-gabor filter in FFT domain

K.Kanagalakshmi, Dr.E.Chandra

Global Journal of Computer Science and Technology, 12,15-21(2012).

Enhanced techniques for PDF image segmentation and text extraction

D.Sasirekha, , Dr.E.Chandra

International Journal of Computer Science and Information Security, 10,1-5(2012).

An enhanced active contour based segmentation for fingerprint extraction

S.Uma Maheswari, Dr.E.Chandra

International Journal on Computer Science and Engineering, 04, 1633- 1638 (2012).

Goal oriented requirements engineering for non-functional factors

D. FrancisXavierChristopher,Dr.E.Chandra

International Journal of Computer Applications, 52,18-23(2012).

Prediction of software requirements stability based on complexity point measurement using multi-criteria fuzzy approach

D. Francis Xavier Christopher, Dr.E.Chandra

International Journal of Software Engineering & Applications, 03, 01-115(2012).

Text to speech: A simple tutorial

D.Sasirekha, Dr.E.Chandra

International Journal of Soft Computing and Engineering, 02, 275-278(2012).

A review study on fingerprint classification algorithm used for fingerprint identification and recognition

SU Maheswari, Dr.E.Chandra

International Journal of Computer Science and Technology,03,739-745(2012).

Frequency domain enhancement filters for fingerprint image: A performance evaluation

Dr.E. Chandra, K.Kanagalakshmi

CIIT Digital Image Processing, 03,(2011).

Noise suppression scheme using median filter in gray and binary images

Dr.E. Chandra, K.Kanagalakshmi

International Journal of Computer Applications, 26, 49-57(2011).

Noise elimination in fingerprint image using median filter

Dr.E. Chandra, K.Kanagalakshmi

International Journal of Advanced Networking and Applications,02, 950-955(2011).

Augmenting CMM model to measure and enhanced quality of education

Dr.E. Chandra, D. Francis Xavier Christopher,S. D. Vijaykumar

CIIT Software Engineering and Technology,02(2010).

Constructing scalable local distributed decision tree algorithm for heterogeneous data source

Dr.E.Chandra, P.Ajitha

International Journal on Computer Science and Engineering, 03, 262-265(2010).

Class break point determination using CK metrics threshold

Dr. E. Chandra, P. Edith Linda

Global Journal of Computer Science and Technology, 73, 73-77(2010).

Feature selection techniques with distributed data mining models

Dr.E.Chandra, P.Ajitha

International Journal of Data Mining and Knowledge Engineering, 02(2010).

Dr.E.Chandra, Sujiya S “Optimized Variable Size Windowing Based Speaker Verification” International Conference on Electronics and Electrical Engineering Technology (EEET 2018), Tianjin Polytechnic University, China (2018).

Dr.E.Chandra, Karthika K “An Advance on Gender Classification by Information Preserving Features” International Conference on Electronics and Electrical Engineering Technology (EEET 2018), Tianjin Polytechnic University, China (2018).

Dr.E.Chandra, Sujiya S “An Analysis of Feature Selection based on Optimization Algorithms for Speaker Verification” 10th International conference on advanced computing, Madras Institute of Technology, India(2018).

Dr.E.Chandra, S.Karpagavalli “Phoneme based Model for Tamil Speech Recognition using GMM-HMM” International conference on advanced computing and communication systems, Eashwar College of Engineering, India(2015).

Dr.E.Chandra, Manikandan.k “Speaker Verification using Factor Analysis & fuzzy auto-associative Neural Network with Application” IEEE 2nd International conference on knowledge collaboration in Engineering, Kathir college of Engineering, India (2015)

Dr.E.Chandra, S.Karpagavalli “Tamil Phoneme Classification using Contextual Features and Discriminative Models” International conference on communication and signal processing, Adhiparasakthi Engineering College, India(2015)

K.Kanagalakshmi , Dr.E.Chandra “A review on the Balanced Score Card for Evaluating the processes during the software Development” IEEE International Advanced Computing Conference, Thapar University, India(2009).

Dr.E.Chandra, C.Sunitha “A review on Speech and Speaker Authentication System using Voice Signal feature Selection and Extraction” IEEE International Advanced Computing Conference, Patiala, India(2008)

Kanagalakshmi, Dr.E.Chandra “Performance adjustment of Speech rate in Automatic Speech Recognition” International Conference, IEE and IEEE, Kolkata, India(2006)

Alumini Reflections: