

PhD Works at CASP Lab

Sl No	Topic of Research	Name of Scholar	Status	Supervisors
1	Array Signal Processing and Compressive Sensing	Sreekumar G	PhD Awarded	Dr. Leena Mary
2	Audio Search	Deekshitha G	PhD Awarded	Dr. Leena Mary
3	Multilevel Features for Recognition Applications in Speech Processing	Starlet Ben Alex	PhD Awarded	Dr. Leena Mary
4	Multirate Systems for Speech/Audio	Tomson Devis	PhD Awarded	Dr. Leena Mary
5	Forensic Speaker Recognition	Sreehari R.	Thesis Submitted	Dr. Leena Mary
6	Speech Processing	Deepa Abraham	Thesis Submitted	Dr. Manju Manuel
7	Audio-Visual feature based traffic analysis using machine learning techniques	Anuja Prasad S	Ongoing	Dr. Leena Mary
8	Automatic Language Identification	Anu George	Ongoing	Dr. Leena Mary
9	Music Signal Processing	Assila Yousaf	Ongoing	Dr. Manju Manuel, Dr. David Solomon George
10	Music Signal Processing	SoyaTreesa Jose	Ongoing	Dr. Manju Manuel, Dr. David Solomon George
11	A Four Grade Brain Tumor Classification System Using Deep Neural Network	Nimmy George	Ongoing	Dr. Manju Manuel
12	Filter Bank for Hearing Aid	Ani Abraham	Ongoing	Dr. Manju Manuel
13	Image/Video analysis for surveillance	Asha Jayaprakash	Ongoing	Dr. Manju Manuel

Students Projects at CASP Lab

MTech Main Projects (2021-2022):

SI No	Title	Name of Student	Supervisors
1	Detection of Motorcyclists with or without Helmet using Machine learning Techniques	Drisy C	Dr. Leena Mary
2	High Performance IIR Filter Implementation on FPGA Using Vedic Multipliers	Meeraja M	Dr. Manju Manuel
3	Implementation of UniWiG architecture using Modified Booth encoding multiplier and Wallace tree adder on FPGA	Bless Tomas	Dr. Manju Manuel
4	Implementation of modified Extreme learning machine with reduced complexity	Rose Mary Thomas	Dr. Neetha George
5	A simple CNN model for semiconductor wafer defect detection and its multiplier less convolution	Mithula	Dr. Neetha George
6	Application of Deep learning for Fruit Detection using RGB Data	Greeshma S Nair	Dr. Michael George
7	An Approach for Image Shadow Detection and Removal using DHAN	Jerlin P Raj	Dr. Helen Mary M C
8	Anomaly Detection using Masked Auto encoder	Swathi S Kumar	Dr. Michael George
9	Covid-19 Classification using Deep Feature Concatenation technique from Chest X-ray Images: A Deep Learning Approach	Daniel C	Dr. Neetha George
10	Brain Tumour Segmentation Using Improved 3D-UNet Architecture	Ruksana Semeir	Dr. Helen Mary M C

MTech Main Projects (2020-2021):

SI No	Title	Name of Student	Supervisors
1	Non-Uniform Region Based Features For Automatic Language Identification	Greeshma Unnikrishnan	Dr. Leena Mary
2	Automatic Severity Evaluation Of Articulation Disorder In Speech Using Dynamic Time Warping	Devi Krishna	Dr. Leena Mary
3	Ramanujan Sums Based Software Defined Radio	Anshu Sebastian	Dr. Manju Manuel
4	Detection and Classification of Alzheimer's Disease Classification Using Brain MRI Images	Aswany manohar	Dr. Manju Manuel
5	Design Of Block Processing Unit With An Area Efficient Multiplier For DSP Processor	Krishnaveny.P.K	Dr. Helen Mary

MTech Main Projects (2019-2020):

Sl No	Title	Name of Student	Supervisors
1	Intelligence Quotient Classification From Human MRI Brain Images Using Convolutional Neural Network	Arya A	Dr. Manju Manuel
2	A Comparison Of LSB And DCT Watermarking In Encrypted Domain	Athira S	Nimmy George

MTech Main Projects (2018-2019):

Sl No	Title	Name of Student	Supervisors
1	Automatic Language Identification For Indian Languages Using Deep Neural Network Approaches	Rosemol Thomas	Dr. Leena Mary Prof. Anu George
2	Significance of Prosodic Features For Automatic Emotion Recognition	Remya Susan John	Dr. Leena Mary Dr. Sinith M S
3	Epoch Extraction from Audio Signals using Kalman Filter	Mubeena Ashraf	Dr. Sinith M S
4	Saliency Based Segmentation For Content Based Image Retrieval Using Bag Of Visual Words	Bismi M Ismail	Dr. Manju Manuel
5	Broad Phoneme Classification using DNN	Sangeetha S	Prof. Anu George

MTech Main Projects (2017-2018):

Sl. No	Title	Name of Student	Supervisors
1	Fingerprint Encryption and Dual Watermarking to Verify the Security Issues in Teleradiology	Alishya Ann Philip	Dr.M.S.Sinith
2	Language Identification Using Gender Dependent GMM-UBM and i-vector for Indian Languages	Anjanendu C	Prof.Anu George
3	High- Quality Image Scaling Using V-Model	Anju Sudhakaran	Prof.Manju Manuel
4	Vehicle Detection and Classification of Heterogeneous Traffic Video Data Collected Using a Probe Vehicle	Dhanalakshmi Renganathan	Prof.Anu George
5	Epoch Extraction from Speech and Singing Voice	Prigish George Abraham	Dr.M.S.Sinith
6	Automatic Spotting of Vowel Nasals and	Shinimol Salim	Prof.Anu George

	Approximants from Speech Signal		
7	Music Perception analysis on hearing impaired listeners using signal processing strategies	Alka John	Dr Rajeev Rajan
8	Meter Estimation in Malayalam Poetry using Acoustic cues	Anu Alphonsa Raju	Dr Rajeev Rajan
9	Continuous Speech recognition system for Malayalam language using Kaldi	Lavanya B Babu	Prof. Anu George
10	Tonic Identification in Carnatic music using TMS320C6713	Rahul M Rajan	Dr Sinith M.S, Dr Rajeev Rajan
11	Raga Identification in Classical music for polyphonic music	Saranya Sasidharan	Dr Sinith M.S, Dr Rajeev Rajan
12	I-vector for Forensic automatic speaker recognition	Arathy P Ajit	Prof. Anu George
13	Predominant music instrument recognition using timbral descriptors	Roshni Ajayakumar	Dr Rajeev Rajan Dr Sinith M.S
14	Automation of Malayam articulation test using automatic speech recognition technique	Smitha Paul	Prof. Anu George Dr. Leena Mary

MTech Main Projects (2016-2017):

Sl No	Title	Name of Student	Supervisors
1	Automatic Spotting and Recognition of Plosive And Fricatives From Speech Signal	Hasna Hathoon K I	Dr. Leena Mary
2	Mimicked Speech Recognition And Spoofing Detection Using Feature Fusion	Unnikrishnan V M	Prof. Rajeev Rajan
3	Malayalam Dialects Recognition Using Spectral And Prosodic Features	Sreeraj V V	Prof. Rajeev Rajan
4	Blur Type Inconsistency Based Image Tampering Detection	Amrutha S	Dr. Manju Manuel
5	Automatic Recognition of Facial Expression using Features Of Salient Patches with SVM and ANN Classifier	Varanya P V	Prof. Anu George
6	Low Pass Filtering in CSD Space and Sparsity Based Denoising	Haritha G	Dr. Manju Manuel
7	Fusion Of Qaudio Visual Features for Vehicle classification In High Density Traffic	Jyothy Das	Dr. Leena Mary
8	A Robust Technique for Image Splicing Detection and Fine Localization in Blurred Images	Ambili B	Prof. Nimmy George
9	Design Of A Reconfigurable Digital Fir Filter Bank For Hearing Aids in CSD Space	Reshma A S	Dr. Manju Manuel
10	Automatic Language Identification for Eight Indian Languages using Higher Level Features	Chithra Madhu	Prof. Anu George

11	Poetic Meter Identification using TMS320-C6713DSK	Soumya S	Prof. Rajeev Rajan
12	Performance Evaluation of Cardiac QRS Detection & Beat Classification System using Multiresolution Analysis	Jisha Michael	Prof. Anu George

MTech Main Projects (2015-2016):

Sl No	Title	Name of Student	Supervisors
1	A Visual Search Using Surface Based Attention Mechanism For Real Time Video	Bijoy PS	Dr. Manju Manuel
2	Speech Emotion Recognition Using Feature Fusion	Drisya P S	Prof. Rajeev Rajan
3	Audio Visual Feature Based Vehicle Classification For Heterogeneous Traffic	Christen Daniel	Dr. Leena Mary
4	Prosody Based Emotion Recognition Using SVM	Veena Mohanan	Dr. Leena Mary
5	Musculo-Skeletal Disease Detection Using Wearable Sensors	Naveen Jones	Dr. Manju Manuel

MTech Main Projects (2014-2015):

Sl No	Title	Name of Student	Supervisors
1	Language Identification Of Indian Languages Using Photactics And Prosody	Lekshmi M Nair	Dr. Leena Mary
2	Towards A Robust Speaker Verification System Coping With Volp, Voice Forgery	Athira Jess Cherian	Dr. Leena Mary
3	A Two-Stage Efficient Audio Search Algorithm For Content Based Audi Retrieval	Ben P Babu	Dr. Leena Mary
4	Vehicle Detection And Classification Using Audio-Visual Cues	Piyush Purushothaman	Dr. Leena Mary, Mr. Rajeev Rajan
5	Development Of A Phase Based Multi Pitch Extraction	Boney Thomas	Mr. Rajeev Rajan
6	Improved Detection Of Copy- Move Forgery In Digital Images	Raichel Philip Yohannan	Dr. Manju Manuel
7	Performance Analysis Of Image Denoising In Directionlet Domain At Different Levels Of Decomposition	Sruthy Peter	Mr. Anish Babu KK
8	Automate Duse Grading System In Fundus Images Using Fuzzy C- Mean Clustering	Mohammed S	Mrs. Anu George
9	Effective Iris Recognition In Non- Ideal Imaging Conditions	Tossy Thomas	Mrs. Anu George
10	A Novel Method For X-Ray Image Enhancement	Jitha Pinky Sreedhar	Mr. Rajeev Rajan
11	Exploring Vehicle Sound Signatures For	Jobin George	Mr.Riyas K S

	Characterisation Of Heterogeneous Traffic		Dr. Leena Mary
12	Phonetic Engine In Malayalam	Sreejith A	Mr.Riyas K S Dr. Leena Mary
13	Prosody Based Forensic Speaker Recognition	Ranjith S	Mr. Anish Babu K K Dr. Leena Mary
14	Spectral Based Text Independent Speaker Recognition	KarthikSelvan	Mr. Anish Babu K K Dr. Leena Mary

MTech Main Projects (2013-2014):

Sl No	Title	Name of Student	Supervisors
1	Prosodically Guided Phonetic Engine In Malayalam	Deekshitha G	Dr. Leena Mary
2	Prosody Based Speaker Verification System: Effects Of Voice Disguise	Sophia Susan John	Dr. Leena Mary
3	A Discriminative Model For Age Invariant Face Recognition Using LDN And SIFT	Sreekala NS	Dr. David Solomon George
4	Query By Example Spoken Term Detection Using Bessel Features	Drisya Vasudev	Mr. Anish Babu K K
5	A Novel Approach In Channel Independent Speaker Verification	Gayathri S	Mr. Anish Babu KK