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S.M. AHADI SARKANI

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Supervised PhD Theses

#	Thesis title	By	Date
1	Robust speech recognition based on power spectrum modification and feature normalization	Sanaz Seyedin & S.M. Ahadi Sarkani	October 2010
2	Presentation of Proper Front-end for Robustness of Automatic Speech Recognition Systems	Gholamreza Farahani & S.M. Ahadi Sarkani	December 2006
3	Prosody in Farsi language and its use in the recognition of speech and its type	Davood Gharavian & S.M. Ahadi Sarkani	November 2004

Supervised MSc Theses

#	Thesis title	By	Date
1	SPEECH ENHANCEMENT USING DEEP NEURAL NETWORKS WITH SKIP CONNECTIONS	Saman Kai & S.M. Ahadi Sarkani	February 2020
2	Single-channel Speaker Extraction Based on Deep Learning	Haleh Damirchi & S.M. Ahadi Sarkani	February 2020
3	Robust voice activity detection using Neural Network	Iman Shahriari & S.M. Ahadi Sarkani	February 2020
4	Convolutional Neural Network based Speech Recognition using Raw Speech Input	Sina Alisamir & S.M. Ahadi Sarkani	February 2018

5	Noise reduction of speech signals using deep neural networks	Razieh Safari & S.M. Ahadi Sarkani	September 2017
6	Single-Channel Speech Signal Quality Improvement against Non-Stationary Noise using Statistical Methods	Seyyed Sina Mehdizadeh & S.M. Ahadi Sarkani	July 2017
7	Robust Vision-Based Simultaneous Multi-Target Tracking	Nima Mahmoudi & S.M. Ahadi Sarkani	January 2017
8	voice activity detection in presence of non-stationary noise for speech enhancement	Maryam Tofighi & S.M. Ahadi Sarkani	November 2016
9	Speaker Diarization	Mansoureh Tabatabaei Fakhar & S.M. Ahadi Sarkani	July 2016
10	Speech enhancement using beam forming microphone and sound source separation for use in digital hearing aids	Neda Karamian Chaleshtori & S.M. Ahadi Sarkani	July 2016
11	text-dependent voice conversion based on machine learning	Sima Nasiri & S.M. Ahadi Sarkani	February 2016
12	Segmentation and object recognition in color images degraded by noise	Elias Rajaby & S.M. Ahadi Sarkani	January 2016
13	Design and Implementation of an Automatic classification system based on evolutionary approaches	Abolfazl Soltani & S.M. Ahadi Sarkani	August 2015
14	speech enhancement by means of speech dereverberation in reverberant enclosures	Vali Ollah Maraghi & S.M. Ahadi Sarkani	October 2014
15	Joint DOA and TDOA estimation for 3D sound source localization of reflective surface by spherical array	Leila Mahmoody & S.M. Ahadi Sarkani	December 2013
16	Blind source separation in determined and underdetermined scenarios in time-frequency domain by clustering observation vectors	Sayyed Ali Rafiei Pour Alavi & S.M. Ahadi Sarkani	October 2013
17	Moving Object Tracking Using Camera Network	Seyedhamidreza Motaman & S.M. Ahadi Sarkani	July 2013
18	Improving the efficiency of automatic spoken language identification methods	Elaheh Partovi & S.M. Ahadi Sarkani	July 2013
19	Emotion classification based on speech feathures	Zeinab Hosseini Amini & S.M. Ahadi Sarkani	February 2013
20	Robustness of speech recognition to environmental noise using spectral processing	Hesam Amoualian & S.M. Ahadi Sarkani	February 2013
21	Combination of Multiple Spectral-Statistical Features for Improved Voice Activity Detection Under Noisy Environmental Conditions	Sahar Khaksar Haghani Dehkordi & S.M. Ahadi Sarkani	February 2012
22	Blind Source Separation of Convolutive Mixtures for localization applications	Shabnam Ghaffarzadegan & S.M. Ahadi Sarkani	January 2012
23	Robust Speech Recognition based on Time-Frequency Approaches	Hamed Riazati Seresht & S.M. Ahadi Sarkani	January 2012
24	Speech Watermarking With Feature-Based Embedding	Arezo Zamanbin & S.M. Ahadi Sarkani	June 2011
25	Digital Audio Watermarking, Robust Against Intentional And Unintentional Attacks	Mohammad Reza Nariman Nejad & S.M. Ahadi Sarkani	February 2011

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26	On the Importance of Phase in Robust Speech Recognition	Erfan Loweimi & S.M. Ahadi Sarkani	July 2010
27	Wavelet-based differential neural networks for speech enhancement	Maedeh Sadat Fasihi & S.M. Ahadi Sarkani	July 2010
28	Design and Implementation of an Automatic Acoustic Scene Recognition System	Mahdiye Karbasy & S.M. Ahadi Sarkani	July 2010
29	Design, statistical analysis and implementation of robust digital multimedia watermarking systems	Nima Khademi Kalantari & S.M. Ahadi Sarkani	December 2009
30	Multiple sound source localization and tracking	Hosein Maleki & S.M. Ahadi Sarkani	February 2009
31	Robust speech recognition based on sub-band prossing	Hojatollah Yeganeh & S.M. Ahadi Sarkani	February 2009
32	Speech signal noise reduction based on singular value decomposition	Bahareh Nazari Ghadikalaee & S.M. Ahadi Sarkani	February 2009
33	Spoken langue recognition based on statistical methods	Ali Ziaei & S.M. Ahadi Sarkani	January 2009
34	IMPROVMENT IN SPEEC/MUSIC DISCRIMINATION METHODS USING LDA	Seyed Omid Sadjadi & S.M. Ahadi Sarkani	April 2008
35	WHO REALY SPEAKS WHEN ?SPEAKER SEGMENTATION AND IDENTIFICATION IN A MULTI-SPEAKER ENVIRONMENT USING NOVEL ALAORITHMS	Seyyed Masoud Mirrezai & S.M. Ahadi Sarkani	February 2008
36	SPEAKER ADAPTATION WITH SPEAKER CLUSTERING IN SPEECH RECOGNITION SYSTEMS	Oldooz Hazrati Yadkoori & S.M. Ahadi Sarkani	February 2008
37	VOICE ACTIVITY DETECTION IN NOISY ENVIRONMENTS USING COMBINATION OF MULTIPLE FEATURES	Akram Soleimanii & S.M. Ahadi Sarkani	February 2008
38	INDEPENDENT COMPONENT ANALYSIS AND ITS USE IN IMPROVING FARSI SPEECH RECOGNITION	Neda Faraji Yamchelo & S.M. Ahadi Sarkani	March 2007
39	FEATURE BASED NOISE-ROBUST AUTOMATIC SPEECH RECOGNITION	Farzad Golshanpourbenam & S.M. Ahadi Sarkani	February 2007

Books

#	Title	Author(s)	Publisher country	publication date	version
	Portal Records				
1	Fundamentals of Microprocessors and Interfacing	S.M. Ahadi Sarkani	Iran (Islamic Republic of)	June 2002	1
2	Pulse and Digital Circuits	S.M. Ahadi Sarkani	Iran (Islamic Republic of)	January 2015	1

Journal Papers

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1 Haleh Damirchi, Sanaz Seyedin, S.M. Ahadi Sarkani, "Improving the loss function efficiency for speaker extraction using psychoacoustic effects", APPLIED ACOUSTICS, December 2021 Vol. 183, Num. 1, Page 1-7, December 2021,

2 Nima Mahmoudi, S.M. Ahadi Sarkani, Mohammad Rahmati, "Multi-target tracking using CNN-based features: CNNMTT", MULTIMEDIA TOOLS AND APPLICATIONS, August 2018 Vol. 0, Num. 0, Page 0-0, August 2018,

3 Kian Ebrahim Kafoori, S.M. Ahadi Sarkani, "Robust Recognition of Noisy Speech Through Partial Imputation of Missing Data", CIRCUITS SYSTEMS AND SIGNAL PROCESSING, July 2017 Vol. 0, Num. 0, Page 0-0, July 2017,

4 Samira Mavaddati, S.M. Ahadi Sarkani, Sanaz Seyedin, "Speech enhancement using sparse dictionary learning in wavelet packet transform domain", COMPUTER SPEECH AND LANGUAGE, February 2017 Vol. 0, Num. 0, Page 0-0, February 2017,

5 Hamed Riazati Seresht, S.M. Ahadi Sarkani, Sanaz Seyedin, "Spectro-temporal Power Spectrum Features for Noise Robust ASR", CIRCUITS SYSTEMS AND SIGNAL PROCESSING, November 2016 Vol. 35, Num. 0, Page 0-0, November 2016,

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10 Samira Mavaddati, S.M. Ahadi Sarkani, Sanaz Seyedin, "Modified coherence-based dictionary learning method for speech enhancement", IET SIGNAL PROCESSING, September 2015 Vol. 0, Num. 0, Page 1-9, September 2015,

11 Abolfazl Soltani, S.M. Ahadi Sarkani, Neda Faraji, Saeed Sharifian Khortoomi, "Designing efficient discriminant functions for multi-category classification using evolutionary methods", NEUROCOMPUTING, September 2015 Vol. 2015, Num. 1, Page 1-1, September 2015,

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14 Sara Ahmadi, S.M. Ahadi Sarkani, Bert Cranen, Lou Boves, "Sparse coding of the modulation spectrum for noise-robust automatic speech recognition", Eurasip Journal on Audio Speech and Music Processing, October 2014 Vol. 2014, Num. 36, Page 1-20, October 2014,

15 Sanaz Seyedin, Saeed Gazor, S.M. Ahadi Sarkani, "On the distribution of Mel-filtered log-spectrum of speech in additive noise", SPEECH COMMUNICATION, September 2014 Vol. 67, Num. 1, Page 8-25, September 2014,

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31 Jahanshah Kabudian, Mohammad Mehdi Homayounpour, S.M. Ahadi Sarkani, "Bernoulli versus Markov: Investigation of state transition regime in switching-state acoustic models", SIGNAL PROCESSING, April 2009 Vol. 0, Num. 89, Page 0-0, April 2009,

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Conference Papers

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1 Haleh Damirchi, Sanaz Seyedin, S.M. Ahadi Sarkani, "Speaker extraction using BLSTM optimized with a new loss function based on differentiated spectrum in frequency domain ", 28th Iranian Conference on Electrical Engineering (ICEE), August 2020

2 Iman Shahriari, Sanaz Seyedin, S.M. Ahadi Sarkani, "Robust voice activity detection based on complementary BLSTM enhancement stage ", 28th Iranian Conference on Electrical Engineering (ICEE), August 2020

3   Sina Alisamir, S.M. Ahadi Sarkani, Sanaz Seyedin, "An end-to-end deep learning model to recognize Farsi speech from raw input ", 4th Iranian Conference of Signal Processing and Intelligent Systems, December 2018

4   Mohammadsaleh Refahi, Jalal Nasiri, S.M. Ahadi Sarkani, "ECG Arrhythmia Classification using Least Squares Twin Support Vector Machines ", Iranian Conference on Electrical Engineering (ICEE 2018), May 2018

5   Farhang Yeganegi, Vahid Hassanzade, S.M. Ahadi Sarkani, "Comparative Performance Evaluation of SVD-based Image Compression ", Iranian Conference on Electrical Engineering (ICEE 2018), May 2018

6   Razieh Safari, S.M. Ahadi Sarkani, Sanaz Seyedin, "Modular Dynamic Deep Denoising Autoencoder for Speech Enhancement ", 7th International Conference on Computer and Knowledge Engineering 2017, October 2017

7   Amin Amiri Hanzaei, Sanaz Seyedin, S.M. Ahadi Sarkani, "Multi-layer kullback-leibler based Complex NMF with LPC error Clustering for Blind Source Separation ", 7th International Conference on Computer and Knowledge Engineering, October 2017

8   Neda Faraji, S.M. Ahadi Sarkani, Hamid Sheikhzadeh Nadjar, "Reverberation Time Estimation based on a Model for the Power Spectral Density of Reverberant Speech ", (EUSIPCO 2016) 24th European Signal Processing Conference, August 2016

9   Neda Faraji, S.M. Ahadi Sarkani, "Improved subspace-based speech enhancement using a novel updating approach for noise correlation matrix ", First International Conference on Signal Processing and Intelligent Systems, December 2015

10   Elias Rajaby, S.M. Ahadi Sarkani, Hassan Aghaeinia, "Entropy-based Fuzzy C-means with Weighted Hue and Intensity for Color Image Segmentation ", First International Conference on Signal Processing and Intelligent Systems, December 2015

11   Zeinab Hosseini Amini, S.M. Ahadi Sarkani, "A Front-End Emotional Speech Classification based on New Sub-Band Filters ", Iranian Conference in Electrical Engineering, May 2015

12   Elaheh Partovi, S.M. Ahadi Sarkani, Neda Faraji Yamchelo, "Language Identification based on Improved Training and Classification ", Iranian Conference on Electrical Engineering, May 2015

13   Elham Eideli, S.M. Ahadi Sarkani, Neda Faraji, "A Novel Speech Intelligibility Improvement Method Using Maximizing Mutual Information Measure ", 10th European Congress and Exposition on Noise Control Engineering (EuroNoise 2015), May 2015

14   Abdolreza Rashno, S.M. Ahadi Sarkani, Manoochehr Kelarestaghi, "Text-Independent Speaker Verification with Ant Colony Optimization Feature Selection and Support Vector Machine ", 2nd International Conference on Pattern Recognition and Image Analysis (IPRIA 2015), March 2015

15   Zeinab Hosseini Amini, S.M. Ahadi Sarkani, N. Faraji, "Speech Emotion Classification via a Modified Gaussian Mixture Model Approach ", International Symposium on Telecommunications (IST 2014), September 2014

16   Kian Ebrahim Kafoori, S.M. Ahadi Sarkani, "A Novel Classifier Modification Approach to Missing Data Problem for Noisy Speech Recognition ", Internatioal Symposium on Telecommunications (IST 2014), September 2014

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18   Erfan Loweimi, S.M. Ahadi Sarkani, Thomas Drugman, Samira Loveymi, "On the Importance of Pre-emphasis andWindow Shape in Phase-based Speech Recognition ", Non-linear Speech Processing (NOLISP) 2013, June 2013

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22   Ali Pourmohammad, S.M. Ahadi Sarkani, "Spectrally Correlated Sound Source Localization in a Noisy Environment Based on A New Mask for Duet Algorithm ", International Conference on Information, Communications and Signal Processing (ICICS), December 2011

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Inventions/Patents

#	Invention title	Reg. number	Country	contributers	Reg. date	Exp. date
1	A noise subtraction algorithm in autocorrelation domain	38604699			2007/07/1	2027/07/1