



NAME & SURNAME: Alimorad Mahmoudi

DATE OF BIRTH: 2/24/1981



ADDRESS, SUBURB, STATE, POSTAL CODE: Faculty of Engineering, Golestan, Ahvaz, Kouzestan, 6135783151

MOBILE NUMBER: +989163174304



E-MAIL ADDRESS: a.mahmoudi@scu.ac.ir

PROFESSIONAL PROFILE:

Assistant Professor of Electrical Engineering in Shahid Chamran University (SCU) of Ahvaz, Iran since 2010-present

EDUCATION BACKGROUND:

Ph.D.: Faculty of Engineering (2010), Shiraz University, Shiraz, Iran

Thesis title:

Parameter estimation of autoregressive model in presence of noise

M.Sc.: Faculty of Engineering (2005), Shiraz University, Shiraz, Iran

Dissertation title:

Design and simulation of signal processing algorithms for a coastal surveillance radar using FMCW technique

B.S.: Faculty of Engineering (2003), Shiraz University, Shiraz, Iran

TEACHING AND TRAINING EXPERIENCE:

Advanced digital signal processing, Digital signal processing, Estimation and detection theory. Stochastic processes, Adaptive filter theory, Radar systems, Digital and analog communications Circuit theory, Signals and systems, Probability in engineering

INTERESTS AND RESEARCH FIELDS:

Statistical signal processing, Array signal processing, Estimation and detection theory. Wireless communications, Radar signal processing, Biomedical signal processing.

RESEARCH ACTIVITIES:

PUBLICATIONS:

- 1) Mohammad Mohammadi Ghanavati, Alimorad Mahmoudi, Abdolnabi Kosarian, Variable leaky steepest descent algorithm for autoregressive fading estimation in OFDM systems, Digital Signal Processing, Volume 117, 2021.
- 2) Hossein Hadadian, Yousef Kavian, Alimorad Mahmoudi, A Markov chain model for IEEE 802.15.4 in time critical wireless sensor networks under periodic traffic with reneging packets. J Ambient Intell Human Comput (2021). <https://doi.org/10.1007/s12652-021-02984-6>
- 3) Kimia Hamouleh Kheirollahpour, Alimorad Mahmoudi, Bogdan Dumitrescu, DOA estimation in the autocorrelation domain for coprime array, Digital Signal Processing, Volume 110, 2021.
- 4) Fateme Shafiee, Alimorad Mahmoudi, and Bogdan Dumitrescu, Linear Prediction-Based DOA Estimator in Non-Uniform Noise. Circuits Syst Signal Process (2020). <https://doi.org/10.1007/s00034-020-01587-4>.
- 5) Reza Ashkiani, Alimorad Mahmoudi, Mahmood Karimi, et, Closed-Form Estimator for Frequency Estimation of Complex Sinusoidal Signals in Multiplicative and Additive Noise. Circuits Syst Signal Process 39, 3595-3609, 2020.
- 6) Hossein Hadadian, Yousef Kavian, Alimorad Mahmoudi, multi-level cross-layer protocol for end-to-end delay provisioning in wireless multimedia sensor networks, Frontiers of Information Technology and Electronic Engineering, 2018.
- 7) Mehdi Hadadian Nejad Yousefi, Yousef S. Kavian, Alimorad Mahmoudi, RTMCH: real-time multichannel MAC for wireless video sensor networks, Multimedia Tools and Applications, 1-16, 2018.
- 8) Asma Raeisi, Gholamreza Akbarizadeh, Alimorad Mahmoudi, Combined method of an efficient Cuckoo search algorithm and nonnegative matrix factorization of different Zernike moment features for discrimination between oil spills and lookalikes in SAR images, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 99, 1-13, 2018.
- 9) Saeed Gholami, Alimorad Mahmoudi, Ebrahim Farshidi, Two-stage estimator for frequency rate and initial frequency in LFM signal using linear prediction approach, Circuits Systems and Signal Processing, 38(1), 105-117, 2019.
- 10) Alireza Amanat, Alimorad Mahmoudi Majid Hatam, Two-dimensional noisy autoregressive estimation with application to joint frequency and direction of arrival estimation, Multidimensional Systems and Signal Processing, 29(2), 671-685, 2018.
- 11) Amin Eslahi, Alimorad Mahmoudi, Homan Kaabi, Carrier Frequency Offset Estimation in OFDM systems as a Quadratic Eigenvalue Problem, Radioengineering, 26(4), 1138-1142, 2017.
- 12) Alimorad Mahmoudi, Model-Based Correlated Channels Estimation, Wireless Personal Communications, 92(2), 483-493, 2017.
- 13) Meysam Mohammadi, Alimorad Mahmoudi, A fast multichannel SAR raw data simulator of

clutter and moving targets. Multidimensional Systems and Signal Processing, 28(4), 1367-1391, 2017.

14) Maryam Songhorzadeh, Karim Ansari-Asl, Alimorad Mahmoudi, Inferring time-varying brain connectivity graph based on a new method for link estimation. Network Computation in Neural Systems, 27(1), 1-28, 2016.

15) Maryam Songhorzadeh, Karim Ansari-Asl, Alimorad Mahmoudi, Two step Transfer Entropy- an estimator of delayed directional couplings between multivariate EEG time series. Computers in Biology and Medicine, 79, 110-122, 2016.

16) Alimorad Mahmoudi, Two dimensional autoregressive estimation from noisy observations as a quadratic eigenvalue problem. Multidimensional Systems and Signal Processing, 27(1), 61-68, 2016.

17) Alimorad Mahmoudi, Adaptive Algorithm for Estimation of Two-Dimensional Autoregressive Fields from Noisy Observations, International Journal of Stochastic Analysis, 2014.

18) Alimorad Mahmoudi, Mahmood Karimi, Hamidreza Amindavar: Parameter estimation of autoregressive signals in presence of colored AR(1) noise as a quadratic eigenvalue problem. Signal Processing, 92(4), 1151-1156, 2012.

19) Alimorad Mahmoudi, Mahmood Karimi, Inverse filtering based method for estimation of noisy autoregressive signals. Signal Processing, 91(7), 1659-1664, 2011.

20) Alimorad Mahmoudi, Mahmood Karimi, Parameter estimation of autoregressive signals from observations corrupted with colored noise. Signal Processing, 90(1), 157-164, 2010.

21) Alimorad Mahmoudi, Mahmood Karimi, Estimation of the parameters of multichannel autoregressive signals from noisy observations, Signal Processing, 88(11), 2777-2783, 2008.

CONFERENCE PRESENTATIONS:

1) Maryam Songhorzadeh, Karim Ansari-Asl, Alimorad Mahmoudi, A computationally efficient method for brain information-theoretic based causality detection using multichannel EEG. 2015 22nd Iranian Conference on Biomedical Engineering (ICBME), 2015.

2) Alimorad Mahmoudi, Mahmood Karimi, Hing Cheung So: Linear prediction approach for sinusoidal frequency estimation in colored noise. Electrical Engineering (ICEE), 2012 20th Iranian Conference on, 2012.

3) Alimorad Mahmoudi, Mahmood Karimi, Parameter estimation of noisy autoregressive signals. Electrical Engineering (ICEE), 2010 18th Iranian Conference on, 2010.

RESEARCH PROJECTS:

Thesis of Students:

1) Adaptive AR model based radar detection, Hussain Mohammadian-asl, MSc 2015.

2) Fading channels estimation based on AR model in OFDM systems, Shahla Alidadi, MSc 2015.

3) The CFAR detection of ground moving targets in multichannel SAR-GMTI systems, Meysam Mohammadi, MSc 2015.

4) Interference cancellation in FM radio-based passive radars, Kheibar Nehmatpour, MSc 2016.

5) DOA estimation in co-located MIMO radar systems, Alireza Amanat, MSc 2016.

6) Estimation of ARCH coefficients based on TLS approach, Mozhgan Biat, MSc 2016. Wideband beamforming in Sparse arrays, Amin Sheikh Amiri, MSc 2017.

7) Carrier frequency offset (CFO) estimation in OFDM systems, Amin Eslahi, MSc 2017.

Curriculum Vitae



- 8) Frequency rate estimation in LFM signal using linear prediction approach, Saeid Gholami, MSc 2018.
- 9) Frequency estimation of complex sinusoidal signals in the presence of multiplicative noise, Reza Ashkiani, MSc 2018.
- 10) Parameter estimation of complex exponential signal under non-ideal conditions, Zahra Zamani, MSc 2019.
- 11) Direction of arrival estimation in nonuniform noise, Fatemeh Shafiei, MSc 2019.
- 12) Adaptive algorithms for autoregressive fading channels estimation, Mohammad Mohammadi Ghanavati, MSc 2019.
- 13) Direction of arrival estimation in Sparse arrays, Kimia Kheirolahpour, MSc 2020.
- 14) Estimation and filtering of noisy AR model with application to MIMO fading channels, Behnam Mahdian, MSc 2020.
- 15) Two-dimensional DOA estimation using parallel coprime arrays, Pardis Ahmadian, MSc 2021.

LANGUAGES:

PERSIAN: Native
ENGLISH: Fluent