Curriculum Vitae (C.V.)
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Mohammad Shams Esfand Abadi

Associate Professor of Shahid Rajaee University

Date of Birth: 18 September 1978
Place of Birth: Tehran-IRAN
Nationality: Iranian
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🔸 Contact Addresses

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🔸 Education

2003-2007	Ph.D. on Biomedical Engineering, Tarbiat Modares University, Tehran, IRAN (Rank 1).
2000-2003	M.Sc. on Biomedical Engineering, Tarbiat Modares University, Tehran, IRAN (Rank 1).
1996-2000	B.Sc. on Electrical Engineering, Mazandaran University, Tehran, IRAN.

🔸 Ph.D. thesis

Title   A Unified Framework for Performance Analysis of Adaptive Filters
Supervisor   Dr. Ali Mahlooji Far (mahlooji@modares.ac.ir)
Description In my Ph.D thesis, we showed that the least mean squares adaptive filter techniques can be developed using the iterative linear equation solver which was directly related to the Wiener-Hopf equation. Furthermore, we showed that the other adaptive filter algorithms such as the normalized least mean squares (NLMS), the recursive least squares (RLS) and the affine projection algorithms can also be developed by applying the iterative linear equation solver to the Wiener-Hopf equation. Developing of these algorithms was based on three ingredients: 1) A preconditioned Wiener-Hopf Equation, 2) Its

simplest possible iterative solution through the Richardson iteration, and 3) An estimation strategy for the autocorrelation matrix, the cross correlation vector and a preconditioner matrix. Accordingly, we presented a general iterative algorithm for adaptive filters named generic adaptive filter (GAF). Also, this presentation of the adaptive filters helped us to analysis the performance of adaptive filters in the steady-state, transient and tracking within a unified way. Therefore, we have the general formalism and the general framework to evaluate the steady-state, transient and tracking performance of the classical and novel adaptive filters. In particular, we present the general expressions for the steady-state mean square error (MSE), the Excess MSE (EMSE), and the mean square coefficient deviation (MSD). We showed that the theoretical results that have been obtained from the general expressions are in good agreement with simulation results.

Research Interests

Adaptive filter theory
Performance analysis of adaptive filters
Application of adaptive filters
Derivation of novel adaptive filters
Image analysis and processing
Adaptive distributed networks
Adaptive diffusion networks
Performance analysis of adaptive distributed networks

Teaching Experiences

2007-present   Faculty Member of Shahid Rajaee Teacher Training University (Assistant Professor), Faculty of Electrical and Computer Engineering.

Courses given:
- *Electrical circuits 1, undergraduate*
- *Electrical circuits 2, undergraduate*
- *Electrical measurement, undergraduate*
- *Signals and Systems, undergraduate*
- *Digital Design, undergraduate*
- *Adaptive filters, graduate*
- *Digital image processing, graduate*
- *Digital signal processing, graduate*
- *Advance adaptive filters, graduate*

Theses supervised/being supervised:

- *20 finished M.Sc. thesis*
- *2 finished Ph.D, thesis*
- *4 running M.Sc thesis*
- *3 running Ph.D. thesis*

| 2003-2007 | Lecturer in Shahid Rajaee University. |
| 2000-2003 | Teaching in Azad and Elmi Karbordi universities. |

⬇ Honors and Awards

2003	Ranked first between all M.Sc students, Tarbiat Modares University
2007	Ranked first between all Ph.D students, Tarbiat Modares University
2008	Best researcher in Shahid Rajaee University.
2009	Best researcher in Shahid Rajaee University
2009	IET Achievement Awards
2020	Best researcher in Shahid Rajaee University

⬇ Supervised Theses

Finished M.Sc theses

2009	V. Mehrdad, "Acoustic echo cancellation with adaptive filter algorithms with selective partial updates".
2010	A. Gholipour, "System identification with the family of affine projection algorithms with variable step-size".
2011	S. Kadkhodazadeh, "Proportionate normalized subband adaptive filter algorithms for sparse system identification".
2011	F. Moradiani, "Tracking performance analysis of SPU adaptive filter algorithms in nonstationary environment "
2011	S. Nikbakht, "Analysis of Two-Dimensional of adaptive filter algorithms in image and signal processing applications"
2011	Ali reza Danaee, "Study of novel adaptive algorithms in distributed networks based on incremental strategy".
2011	Z. Saffari, "Performance analysis of novel adaptive algorithms in distributed networks based on diffusion strategy".
2011	A. Arzandi, "Design of simulator package for Channel equalization with classical and novel adaptive filter algorithms".
2011	M. S. Shafee, "Derivation of novel variable step-size subbnad adaptive filter algorithms".

Finished Ph.D. theses

| 2018 | S. M. Khademiyan, "Derivation of novel wavelet transform domain adaptive filter algorithms." |
| 2019 | M. S. Shafiee, "Derivation of novel subband adaptive filter algorithms in distributed networks". |

⬇ Languages

| Arabic | Little reading. |

English   reading, writing, speaking

♨ Experiences in abroad

Work with Prof. John Hakon Husoy in Signal Processing group at university of Stavanger, Norway (john.h.husoy@uis.no).

2003	Design of simulator package for adaptive filter algorithms, University of Stavanger, Norway.
2005	Design a unified framework for adaptive filter algorithms, university of Stavanger, Norway.
2007	Derivation of novel adaptive filter algorithms, University of Stavanger, Norway.

♨ Reviewer of International Journals

IEEE Transactions on Signal Processing
IEEE Transactions on Circuits and Systems I
IEEE Transactions on Circuits and Systems II
IEEE Signal Processing Letters
Signal Processing
Digital Signal Processing
IET Signal Processing
IET Image Processing
Circuits, Systems, and Signal Processing
International Journal of Adaptive Control and Signal Processing
Computers and Electrical Engineering
Iranian Journal of Electrical and Computer Engineering
Iranian Journal of Electrical and Electronic Engineering
Journal of Iranian Association of Electrical and Electronics Engineers
Modares Electrical Engineering Journal

♨ Administration

2007-2008	Head of electronic group.
2008-2013	Research affairs manager of Shahid Rajaee University
2015-2018	Manager of presidential domain
2018-present	Vice-President for research and Technology

♨ Publications

♨ Journal

[1] M. S. E. Abadi, H. Mesgarani, and S. M. Khademiyan, "Robust Variable Step-Size Affine Projection Sign Algorithm Against Impulsive Noises", **Circuits, Systems, and Signal Processing, vol. 39. No. 3, pp. 1471-1488, 2020.**

[2] M Shams Esfand Abadi, J Hakon Husoy, M Ahmadi, "Two Low Computational Complexity Improved Multiband Structured Subband Adaptive Filter Algorithms", **Scientia-Iranica, in press.**

[3] M. S. E. Abadi, H. Mesgarani, and S. M. Khademiyan**, "**The Variable Step-Size Wavelet Transform-Domain LMS Adaptive Filter Algorithm**", Scientia-Iranica, in press.**

[4] M. S. E. Abadi and M. J. Ahamdi**, "**Diffusion Improved Multiband-Structured Subband Adaptive Filter Algorithm With Dynamic Selection of Nodes Over Distributed Networks**", IEEE Transactions on Circuits and Systems II: Express Briefs 66 (3), 507-511, 2019.**

[5] M. S. E. Abadi**,** M. J. ahamdi, and M. S. shafiee, "Diffusion improved multiband-structured subband adaptive filter algorithms with dynamic selection of regressors and subbands over distributed networks" **International Journal of Sensor Networks vol. 31 no. 4, pp.253-264, 2019.**

[6] J. Khosravi, M. S. E. Abadi, R. Ebrahimpour, "Image Registration Based on Sum of Square Difference Cost Function", **Journal of Electrical and Computer Engineering Innovations (JECEI)"**, vol. 6, no. 2, pp. 263-271, 2018.

[۷]محمد شمس اسفندآبادی، اسماعیل حیدری، "خانواده الگوریتم های تطبیقی تصویر افاین با اندازه گام متغیردر شبکه های توزیع شده انتشاری"، نشریه مهندسی برق و مهندسی کامپیوتر ایران، سال ۱۷، شماره ۳، پاییز ۱۳۹۸.

[8] J. Khosravi, M. S. E. Abadi, R. Ebrahimpour, "A Novel Iterative Rigid Image Registration Algorithm Based on the Newton Method", **International Journal of Image and Graphics, in press.**

[9] M. S. E. Abadi and M. J. Ahamdi**, "**Weighted Improved Multiband-Structured Subband Adaptive Filter Algorithms**", IEEE Transactions on Circuits and Systems II: Express Briefs, in press, vol. 66, no. 12, pp. 2077-2081, 2019.**

[10] M. S. E. Abadi, J. H. husoy**,** and M. J. Ahamdi**,** "Two improved multiband structured subband adaptive filter algorithms with reduced computational complexity, **Signal Processing, vol. 154, pp. 15-29, 2019.**

[11] M. S. E. Abadi and M. S. shafiee**,** "Distributed estimation over an adaptive diffusion network based on the family of affine projection algorithms, **IEEE Transactions on Signal and Information Processing over Networks, vol. 5, no. 2, pp. 234-247, 2018.**

[12] M. S. E. Abadi, M. S. Shafiee, and M. Zalaghi**,** "A low computational complexity normalized subband adaptive filter algorithm employing signed regressor of input signal, **Eurasip Journal on Advances in signal Processing, 2018.**

[13] M. S. E. Abadi and M. S. Shafiee**, "**A Family of Diffusion Normalized Subband Adaptive Filter Algorithms Over Distributed Networks**", International Journal of communications, vo. 30, no. 7, pp. 33-48, 2017.**

[14] M. S. E. Abadi and M. S. Shafiee*. "*Diffusion normalized subband adaptive algorithm for distributed estimation employing signed regressor of input signal**", Digital Signal Processing***, vol. 70, PP.* **73-8, Nov. 2017.**

[11] M. S. E. Abadi, H. Mesgarani, S. M. Khademian*,* " The wavelet transform-domain LMS adaptive filter employing dynamic selection of subband-coefficients*", ***Digital Signal Processing***, vol. 69, PP.* **94-105, Oct. 2017.**

[15] M. S. E. Abadi, H. Mesgarani, S. M. Khademian," The Wavelet Transform-Domain LMS Adaptive Filter Employing Dynamic Selection of Subband-Coefficients**", IJEEE, vol. 13, no. 3, 2017.**

[16]M. S. E. Abadi, and S. NikbakhtAali, "The novel two-dimensional adaptive filter algorithms with the performance analysis", ***Signal Processing (Elsevier),*** vol. 103, no. 10, pp. 348-366, October 2014.

[17]M.S.E.Abadi, M.S.Shafiee," The new normalized subband adaptive filter algorithms with variable step-size", ***Automatika***, vol. 55, no. 2, pp. 188-198, 2014.

[18]M. S. E. Abadi,and A R. Danaee, "Low computational complexity family of affine projection algorithms over adaptive distributed incremental networks", ***AEU - International Journal of Electronics and Communications,***vol. 68, no. 2, pp. 97-110, February 2014*.*

[19]M. S. E. Abadiand F. Moradiani, "A Unified Approach to Tracking Performance Analysis of the Selective Partial Update Adaptive Filter Algorithms in Nonstationary Environment" ***Digital Signal Processing (Elsevier),*** vol. 23, no. 3, pp. 817-830, May 2013**.**

[20]M. S. E. Abadi, M. S. Shafiee,"A Family of Variable Step-Size Normalized Sub-and Adaptive Filter Algorithms using Statistics of System Impulse Response,"***Iranian Journal of Electrical and Electronic Engineering (IJEEE),*** vol. 9, no. 1, pp. 27-35, March 2013.

[21] M. S. E. Abadi and A R. Danaee, M. Seifouri, "Performance analysis of selective partial update normalized least mean squares algorithm over an adaptive incremental network", *Iranian Journal of Electrical and Computer Engineering (IJECE),* vol. 11, no. 2, pp. 85-92, 2012.

[22] M. S. E. Abadi, and S. Nikbakht, "Image denoising with two-dimensional adaptive filter algorithms," *Iranian Journal of Electrical and Electronic Engineering (IJEEE)*, vol. 7, no. 2, pp. 84-105, June 2011.

[23] M. S. E. Abadi, V. Mehrdad, and M. Noroozi, "A family of set-memebershipaafine projection adaptive filter algorithms," *International Journal of Innovative, Information and Control,* vol. 8, no. 2, 2012.

[24] M. S. E. Abadi, S. A. A. A. Arani, "A family of variable step-size affine projection adaptive filter algorithms using statistics of channel impulse response," Accepted for publication in *EURASIP Journal on Advances in Signal Processing,* 2011.

[25] M. S. E. Abadi, and SimaKadkhodazadeh, "A family of proportionate normalized subband adaptive filter algorithms," in *Journal of the Franklin Institute*, vol. 348, no. 2, pp. 212-238, March 2011.

[26] M. S. E. Abadi, and H. Palangi, "A Unified Approach to Set-Membership and Selective Partial Update Adaptive Filtering Algorithm," *International Journal ofInformation and Communication Technology*, vol. 2.no. 2, pp. 61-70, 2010.

[27] M. S. E. Abadi, and F. Mopradiani, "Mean-Square Performance Analysis of the Family of Selective Partial Update NLMS and Affine Projection Adaptive Filter Algorithms in Nonstationary Environment," in *EURASIP Journal on Advances in Signal Processing,* Volume 2011, Article ID 484383, 11 pages, doi:10.1155/2011/484383.

[28] A. Esmaeelpour, M. Kaboodvand, and **M. S. E. Abadi**, "Learning modern physic with applications of laser in industrial a biomedical engineering", *Journal of Technology of Education*, vol. 5, no. 1, pp. 51-59, 2010.

[29] S. Olyaee, **M. S. E. Abadi**, S. Hamedi, F. Finizadeg, "Use of adaptive RLS,LMS, and NLMS algorithms for nonlinearity modelling in a modified laser interferometer", *Front Optoelectron China*, vol. 3, no. 3, pp. 264-269,2010.

[30] S. Olyaee, **M. S. E. Abadi**, S. Hamedi, F. Finizadeh, "Refractive index determination in fuel cells using high-resolution laser heterodyne interferometer," *International Journal of Hydrogen Energy*, vol. 36, no. 10, pp. 13255-13265, 2011.

[31] M. S. E. Abadi, "Selective Partial Update and Set-Membership Improved Proportionate Normalized SubbandAdaptive Filter Algorithms," *International Journal of Adaptive Control and Signal processing*", vol. 24, no. 9, pp. 786-804, 2010.

[32] M. S. E. Abadi, V. Mehrdad, "Family of Affine Projection Adaptive Filters With Selective Partial Updates and Selective Regressors," *IET Signal Processing*, vol. 4, no. 5, pp. 567-575, 2010.

[33] M. S. E. Abadi, V.Mehrdad, A. Gholipour, "Family of Variable Step-Size Affine Projection Adaptive Filtering Algorithms with Selective Regressors and Selective Partial Update," *International Journal of Science and Technology, Scientia, Iranica*, vol. 17, no. 1, pp. 81-98, 2010.

[34] M. S. E. Abadi, A. Gholopour, V. Mehrdad, M. Noroozi, "A Family of Variable Step-Size Affine Projection Adaptive Filtering Algorithms," *International Journal of Computer and Electrical Engineering (IJCEE)*, vol. 2, no. 3, pp. 447-459, June 2010.

[35] S. Olyaee, M. S. E. Abadi, R. Ebrahimpour, M. Moradian, "A Comparative Study of Two Blind Source Separation Approaches to Resolve the Multi-Source Limitation of the Nutating Rising-Sun Reticle Based Optical Trackers", *International Journal of Computer and Electrical Engineering (IJCEE),* vol. 2, no. 2, pp. 283-291, April 2010.

[36] M. S. E. Abadi, A. Gholipour, V. Mehrdad, "A Family of Variable Step-Size Affine Projection Adaptive Filtering Algorithms with Selective Regressors," *International Journal of Signal and Image Processing*, vol. 1, no. 2, pp. 108-120, 2010.

[37] M. S. E. Abadi, and H. Palangi, "Mean-square performance analysis of the family of selective partial update and selective regressor affine projection algorithms", *Signal Processing*, vol. 90, no. 1, pp. 197-206, 2010.

[38] M. S. E. Abadi, V. Mehrdad, and M. Noroozi, "A family of selective partial update affine projection adaptive filtering algorithms", *Iranian Journal of Electrical and Electronic Engineering (IJEEE*), vol. 5, no. 3, pp. 159-169, 2009.(ISC)

[39] M. S. E. Abadi, "Proportionate normalized subband adaptive filter algorithms for sparse system identification," *Signal Processing*, vol. 89, no. 7, pp. 1467-1474, 2009.(ISI)

[40] M. S. E. Abadi, "Mean-square performance analysis of selective partial update subband adaptive filters*," IETE Journal of Research*, vol. 55, no. 1, pp. 35-39, 2009.

[41] M. S. E. Abadi, J. H. Husøy, "On the application of unified adaptive filter theory in the performance prediction for important adaptive filter algorithms," *Digital Signal Processing*, vol. 19, no. 3, pp. 410-432, 2009.

[42] M. S. E. Abadi and J. H. Husøy, "Mean-square performance of adaptive filters with selective partial update", *Signal Processing*, vol. 88, no. 8, pp. 2008-2018, 2008.

[43] M. S. E. Abadi and J. H. Husøy, "Selective partial update and set-membership subband adaptive filters", *Signal Processing*, vol. 88, no. 10, pp. 2463-2471, 2008.

[44] J. H. Husøy, M. S. E. Abadi, "A unified approach to adaptive filters and their performances," *IET Signal Processing*, vol. 2, no. 2, pp. 97-109, 2008.

[45] M. S. E. Abadi and A. M. Far, "A unified approach to steady-state performance analysis of adaptive filters without using the independence assumptions," *Signal Processing*, vol. 87, pp. 1642-1654, 2007.

[46] M. S. E. Abadi and A. M. Far, "A unified framework for adaptive filter algorithms with variable step-size," *Computers and Electrical Engineering*, vol. 34, no. 3, pp. 232-249, 2008.

[47] M. S. E. Abadi and J. H. Husøy, "Mean-square performance of adaptive filter algorithms in nonstationary environments," *International Journal of Signal Processing*, vol. 4, pp. 182-188, 2007.

[48] M. S. E. Abadi, A. M. Far and S. Z. Moussavi, "Variable step-size block normalized least mean square adaptive filter: A unified framework," *International Journal of Science and Technology, Scientia, Iranica*, vol. 15, pp. 195-202, 2008.

[49] J. H. Husøy and M. S. E. Abadi, "Transient analysis of adaptive filters using a general framework," in *AUTOMATIKA, Journal for Control, Measurement, Electronics, Computing and Communications*, vol. 45, pp. 121–127, 2004.

[50] M. S. E. Abadi, A. M. Far, M. B. Menhaj and S. A. Hadei, "A fast affine projection algorithm based on matching pursuit with partial parameters adjustment," *Amirkabir Journal of Science and Technology*, vol. 18, no. 67-A, pp. 11-23, 2008.

[51] M. S. E. Abadi, J. H. Husøy, and A. M. Far, "Interpretation and convergence analysis of two recently introduced adaptive filter algorithms (FEDS/RAMP)," *Iranian Journal of Electrical and Computer Engineering (IJECE)*, vol. 7, no. 1, pp. 54-60, 2008.

[52] M. S. E. Abadi, M. H. MiranBaygi, A. M. Far, S. Moghimi, "Studying thermal effects of laser on tissue using implicit finite volume method," *Iranian Journal of Electrical and Electronic Engineering (IJEEE)*, vol. 1, no. 4, pp. 23- 28, 2005.

International Conferences

[1] J. H. Husøy and M. S. E. Abadi, "A comparative study of some simplified RLS type algorithms," in *Proc. ISCCSP*, Hammamet, Tunisia, pp. 705-708, March 2004.

[2] J. H. Husøy and M. S. E. Abadi, "A common Framework for Transient Analysis of Adaptive Filters," in *Proc. Melecon*, Dubrovnik, Croatia, pp. 403-407, May 2004.

[3] J. H. Husoy and M. S. E. Abadi, "Interpretation and convergence speed of two recently introduced adaptive filters (FEDS/RAMP)," in *Proc. Tencon*, Chiang Mai, Thailand, pp. 471-474, Nov 2004.

[4] M. S. E. Abadi, A. Mahlooji Far, E. Kabir and R. Ebrahimpour, "Adaptive Channel Equalization Using Fast Euclidean Direction Search algorithm," in *Proc. 2nd IEEE Gulf International Conference*, Manama, Bahrain, pp. 656-661, Nov 2004.

[5] M. S. E. Abadi, A. Mahlooji Far, E. Kabir and R. Ebrahimpour, "Image restoration using two dimensional fast Euclidean direction search based adaptive algorithm," in *Proc. 4th IEEE International Workshop on Soft Computing as Transdisciplinary Science and Technology (WSTST05),* Muroran, Japan, pp. 182-191, May 2005.

[6] J. H. Husøy and M. S. E. Abadi, "A novel LMS-type adaptive filter optimized for operation in multiple signal environments," in *Proc. Norsig*, Stavanger, Norway, pp. 117-120, Sept 2005.

[7] J. H. Husøy and M. S. E. Abadi, "A New LMS type algorithm utilizing approximate a priori knowledge of the input autocorrelation," *in Proc. Applied Electronics*, Plzen, Czech Republic, pp. 147-150, Sep 2005.

[8] M. S. E. Abadi and J. H. Husøy, "Variable step size pradhan reddy subband adaptive filters," in *Proc. of Fifth Intl. Conf. on Information, Communications and Signal Processing*, Bangkok, Thailand, pp. 909-912, Dec 2005.

[9] M. S. E. Abadi, S. Z. Moussavi, S. A. Hadei, "Variable step size block least mean square adaptive filters", in *Proc. of First Intl. Conf. on Industrial and Information Systems,* Peradeniya, Sri Lanka, pp. 403-206, Aug 2006.
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[10] J . H. Husøy and M. S. E. Abadi, "A family of flexible NLMS type adaptive algorithms", in *Proc. of Sixth. intl. Conf. on Information, Communications and Signal Processing*, Singapore, pp. 1-5, Dec 2007.

[11] J . H. Husøy and M. S. E. Abadi, " Set-membership subband adaptive filters ", in *Proc. of the 3rd. intl. Symp. On Communications, Control and Signal Processing*, St. Julians, Malta, pp. 193-196, March 2008.

[12] M. S. E. Abadi, J. H. Husøy, and V. Mehrdad, "Combining of the Selective Partial Update and Selective Regressor Approaches in Affine Projection Adaptive Filtering Algorithms", Accepted in ICICS, 2009.

[13] M. S. E. Abadi, V. Mehrdad, and N. Hadizadeh Kashani, "A Family of Affine Projection Adaptive Filtering Algorithms With Selective Regressors" in Proc. CESSE, 2009.

[14] S. Olyaee, M. S. E. Abadi, S. Hamedi, and F. Finizadeh, "Adaptive Algorithms for Nonlinearity Modelingin Laser Heterodyne Interferometer" in Proc. CSNDSP, 2010.

[15] M. S. E. Abadi, S. Kadkhodazadeh, "The Novel Proportinate Normalized Subband Adaptive Filter Algorithms for Sparse System Identification", in Proc. 3rd international Conference on Signal Acquisition and Processing (ICSAP), 2011.

[16] A Mahdavi, M Nasrollahpour, S Hamedi-Hagh, M. S, E. Abadi, "A low phase noise CMOS oscillator with tail current-shaping technique in wireless implantable SoC applications" in Proc. 24th IEEE International Conference on Electronics, Circuits and Systems, 2017.

[17]. J. H Husøy, M. S. E Abadi, "On the convergence speed of the normalized subband adaptive filter: Some new insights and interpretations", in Proc. International Symposium on Signals, Circuits and Systems (ISSCS), 1-4, 2017.

🔴 National Conferences

[1] M. S. E. Abadi, A. Malooji Far, V. J. Majd, M. Faraji, "System identification using fast Euclidean direction search algorithm," in *Proc. 6th conference on intelligent systems*, Kerman, Iran, pp. 352-357, Nov 2004.

[2] H. Ghassemian, M. S. E. Abadi, A. Mahlooji Far, "Image restoration through two dimensional FEDS algorithm," *in Proc. MVIP*, Tehran, Iran, pp. 585-592, Feb 2005.

[3] M. S. E. Abadi and J. H. Husøy, "Channel equalization using recursive adaptive matching pursuit algorithm," in *Proc. ICEE*, Zanjan, Iran, pp. 531-536, May 2005.

[4] M. S. E. Abadi, S. Daneshvar, M. Lotfizad, A. Malooji Far, "Recursive adaptive matching pursuit in noise cancellation for speech enhancement," in *Proc. The Second International conference on Information and Knowledge Technology*, Tehran, Iran, June 2005.

[5] M. S. E. Abadi, A. Malooji Far, "Two dimensional recursive adaptive matching pursuit filter," in *Proc 11th International CSI Computer Conference,* Tehran, Iran, pp. 240-246, Jan 2006.

[6] M. S. E. Abadi and J. H. Husøy, "Transient analysis of the Signed Regressor algorithm based on a unified framework," in *Proc. ICEE*, Tehran, Iran, May 2006.

[7] M. S. E. Abadi, J. H. Husøy, A. M. Far, S. A. Hadei, "Variable step-size partial rank adaptive filter algorithm based on unified framework," in *Proc. ICEE,* Tehran, Iran, pp. , May 2007.

[8] M. S. E. Abadi, "Set-membership normalized subband adaptive filters", Accepted in ICEE2008.

[9] P. Amiri, M. Nabavi, M. S. E. Abadi, "Direct sequence ultra wideband channel equalizer using recursive adaptive matching pursuit algorithm", in Proc. ICEE, 2008.

[10] M. S. E. Abadi, V. Mehrdad, "Selective Partial Update Affine Projection Algorithm with Partial Rank in Acoustic Echo Cancellation ", in Proc. ICEE, 2009.

[11] M. S. E. Abadi, V. Mehrdad, "A Family of variable step-size afine projection adaptive filterting algorithms with selective partial update", in Proc. ICEE, Isfahan, Iran. May 2010.

[12] S. Olyaee, M. S. E. Abadi, S. Hamedi, "Adaptive RLS algorithm for nonlinearity modeling in the nanometry system", in Proc. ICEE, Isfahan, Iran. May 2010.

[13] M. S. E. Abadi, M. Noroozi, H. Askandari, "An educational software package for adaptive filter algorithms". In Proc. National conference on education, 2010.

[14] M. S. E. Abadi, F. Moradiani, and S. Zakernejad, "Verification of pre image processing methods in recognition" in Proc MVIP, Isfahan, Iran, 2015.

[15]M. S. E. Abadi, and Sahar Nikbakht, "A Family of two dimensional variable step-size affine projection adaptive filter algorithms"in MVIP, Isfahan, Iran, 2015.

[16] M. S. E. Abadi, A. Pour Adabi, "Convex Combination of Two Diffusion LMS for Distributed Estimation", in Proc. ICEE, pp. 1715-1719, 2019.

📕 Books

[1] M. S. E. Abadi, and A. Ahmadi, "Introduction to Digital Signal Processing", Shahid Rajaee University Publication, 2001 (in Persian).

[2] M. S. E. Abadi, and A. Ahmadi, "Fundamentals of Digital Image Processing", Shahid Rajaee University Publication, 2009 (in Persian).

[3] M. S. E. Abadi, "Fundamentals of Adaptive Filters", Shahid Rajaee University Publication, 2017 (in Persian).