



## ***Prof. Dr. Aykut HOCANIN***

Dean  
Faculty of Engineering  
Eastern Mediterranean University

Phone: 90 392 630 1380  
Email: aykut.hocanin@emu.edu.tr  
<http://faraday.ee.emu.edu.tr/hocanin>

### **Education**

Ph.D. in Electrical Engineering, Boğaziçi University, İstanbul, Turkey, 1994-2000.

M.Eng. in Electrical Engineering, Texas A&M University, College Station, Texas, USA, 1992-1993.

B.S.E.E. in Electrical and Computer Engineering, Rice University, Houston, Texas, USA, 1988-1992.

### **Academic Appointments**

Professor, Electrical and Electronic Engineering Dept., Eastern Mediterranean University, Gazimağusa, N. Cyprus, October 2012.

Associate Professor, Electrical and Electronic Engineering Dept., Eastern Mediterranean University, Gazimağusa, N. Cyprus, December 2006.

Assistant Professor, Electrical and Electronic Engineering Dept., Eastern Mediterranean University, Gazimağusa, N. Cyprus, 2000.

### **Work Experience**

**Dean**, Faculty of Engineering, Eastern Mediterranean University, Gazimağusa, N. Cyprus, May 2014-

**Chairman**, Electrical and Electronic Engineering Dept., Eastern Mediterranean University, Gazimağusa, N. Cyprus, June 2007-May 2014.

**Vice Chairman**, Electrical and Electronic Engineering Dept., Eastern Mediterranean University, Gazimağusa, N. Cyprus, Feb. 2003-June 2007.

**Teaching Assistant**, Işık University, İstanbul, Turkey, 1999-2000.

**Teaching Assistant**, Koç University, İstanbul, Turkey, 1995-1998.

**Teaching Assistant**, Texas A&M University, College Station, Texas, USA, 1992-1993.

## **Scholarships/Distinctions**

Fahir İlkel Ph.D Scholarship, Boğaziçi University, İstanbul, Turkey (1999-2000).

President's Honor List, Rice University, Houston, Texas, USA (Spring 1990, Spring 1991).

CASP (Cyprus America Scholarship Program) scholarship, AMIDEAST, 1988-1992.

## **Professional Activities**

Engineering Deans Council, Executive Board Member, 2018-  
*I was elected to the Engineering Deans Council Executive Board among 200 Engineering Deans in Turkey.*

YODAK Strategic Planning Council Member, 2017-

NCAAA, National Commission for Academic Accreditation and Assessment, Panel Review Member.  
*I was the principal accreditation program evaluator for Electrical and Electronics Engineering Programs in Kingdom of Saudi Arabia in 2015 and served on the Institutional Evaluation Panel in 2016.*

MUDEK, Association for Evaluation and Accreditation of Engineering Programs, Program Evaluator,  
*I was the principal accreditation program evaluator for Electrical and Electronics Engineering Programs in Turkey in 2013, 2019 and 2020.*

Elected member, Inter-Universitary Coordination Board, N. Cyprus, 2013.

Paper reviewer for

ELSEVIER Signal Processing  
ELSEVIER Digital Signal Processing  
ETRI Journal

EURASIP Journal of Applied Signal Processing  
EURASIP Journal of Wireless Communications and Networking  
Hindawi Research Letters in Communications  
IEE Proceedings on Vision, Image and Signal Processing  
IEEE Communications Magazine  
IEEE Transactions on Signal Processing  
IEEE Transactions on Communications  
IEEE Transactions on Information Theory  
IEEE Communications Letters  
The Computer Journal

## **Conference Organization**

HONET\_CNS 2013 High Performance Optical Networks- Communications and Network Security,  
Local Committee Chairman.

SIU 2013 Signal Processing and Communications Applications Conference, Technical Program  
Chairman.

ICSCCW 2009 International Conference on Soft Computing, Computing with Words and Perceptions  
in System Analysis, Decision and Control, Conference co-chairman.

SIU 2001 Signal Processing and Communications Applications Conference, Conference co-chairman.

## **Professional Memberships**

Institute of Electrical and Electronics Engineers (IEEE), *Senior Member*

Communications Society  
Signal Processing Society  
Vehicular Technology Society

Association of Computing Machinery (ACM), *Senior Member*

Union of the Chambers of Cyprus Turkish Engineers and Architects  
Chamber of Electrical Engineers, *Member*

## Funded Research

TRNC Ministry of Education (MEKB Type B Project)

Project Title: Adaptive Filtering for Interference Cancellation

Project Identifier: MEKB-05-08

Start Date: 01/12/2008

Successfully completed.

Duration: 18 Months

Investigators: Prof. Dr. Osman Kükrcer, Assoc. Prof. Dr. Aykut Hocanın and Ph.D. student Mohammad S. Ahmad

## Ongoing Graduate Student Supervision

Student	Program
1. Hakan Berçağ	<b>PhD</b> (Co-supervisor: Asst. Prof. Dr. Osman Kükrcer)

## Theses Supervision (Completed)

Student	Program	Title	Date
1. Faris Jaar	<b>MS</b>	Recursive Inverse Adaptive Filtering for Fading Communication Channels	July 2019
2. Mohammad N. S. Jahromi	<b>PhD</b> (Co-supervisor: Asst. Prof. Dr. Mohammad Shukri Salman)	Sparse Adaptive Filtering and Applications	August 2017
3. Hasan Abu Hilal	<b>PhD</b> (Co-supervisor: Assoc. Prof. Hüseyin Bilgekul)	Performance of MIMO CDMA in Impulsive Channels	July 2012
4. Nasser Sabah	<b>PhD</b>	Enhancement of Mobile Ad-hoc Network Models Using Realistic Mobility and Access Control Mechanisms	May 2012
5. Mohammad Shukri Ahmad	<b>PhD</b> (Co-supervisor: Prof. Osman Kükrcer)	Recursive Inverse Filtering Techniques and Applications	September 2011
6. Peyman Aghajamaliaval	<b>MS</b>	Power Control in DS-CDMA Forward Link in Mobile Channels	September 2011
7. Cafer Elgin	<b>MS</b>	Robust Detection of DS/CDMA Signals in Impulsive Noise and Near-Far Scenarios	January 2011
8. Mustafa Kaleli	<b>MS</b>	Robust Successive Interference Cancellation in DS/CDMA	December 2010
9. Murad Ghazy Khalaf	<b>MS</b> (Supervisor: Assoc. Prof. Doğu Arifler)	Connectivity Analysis of Large-Scale Wireless Ad Hoc Networks with Heterogeneous Nodes	February 2010

10. Merin Savaş	<b>MS</b>	Nonbinary Convolutional Coding for Multimedia Data Transmission	September 2009
11. Neyre Tekbıyık	<b>MS</b>	Closed Loop Power Control with Fixed Step-size in DS-CDMA Cellular Systems	September 2007
12. Mohammad Shukri Ahmad	<b>MS</b> (Co-supervisor: Prof. Osman Kükreler)	Frequency-Response-Shaped LMS Adaptive Channel Estimation	June 2007
13. Umut Hocanın	<b>MS</b>	Closed Loop Power Control and Code Synchronization in DS-CDMA	September 2005
14. Sabina Husic	<b>MS</b> (Co-advisor: Assoc. Prof. Hasan Demirel)	Image Communication Using Unequal Error Protection for PCA-Coded Images	August 2005
15. Ayşe Kortun	<b>MS</b>	Multiuser Detection of CDMA Signals in Impulsive Noise	August 2004

## Publications

### Journal Publications

- [1] Mohammad Shukri Salman, Osman Kükreler, Aykut Hocanın, “A Fast Quasi-Newton Adaptive Algorithm based on Approximate Inversion of the Autocorrelation Matrix”, *IEEE Access*, 2020.
- [2] Mohammad Shukri Salman, Osman Kükreler, Aykut Hocanın, “Recursive inverse algorithm: Mean-square-error analysis”, *Digital Signal Processing, Elsevier*, <https://doi.org/10.1016/j.dsp.2017.04.001>, Volume 66, pp. 10-17, 2017.
- [3] Mohammad N. S. Jahromi, Mohammad Shukri Salman, Aykut Hocanın, Osman Kükreler, “Mean-square deviation analysis of the zero-attracting variable step-size LMS algorithm”, *Signal, Image and Video Processing*, Volume 11, pp. 533–540, 2017.
- [4] Mohammad N. S. Jahromi, Mohammad Shukri Salman, Aykut Hocanın and Osman Kükreler, “Convergence analysis of the zero-attracting variable step-size LMS algorithm for sparse system identification”, *Signal Image and Video Processing, Springer*, 10.1007/s11760-013-0580-9, Volume 9, pp. 1353-1356, September 2015.
- [5] Mohammad S. Ahmad, Osman Kükreler and Aykut Hocanın, “Recursive Inverse Adaptive Algorithm: a second-order version, a fast implementation technique, and further results”, *Signal Image and Video Processing, Springer*, DOI: 10.1007/s11760-013-0491-9, Volume 9, No: 3, pp. 665-673, March 2015.
- [6] Runyi Yu, Erhan Ince and Aykut Hocanın, “Subspace Alignment and Separation for Multiple Frequency Estimation”, *IEEE Signal Processing Letters*, 10.1109/LSP.2014.2346252, pp. 16-20, January 2015.

- [7] Nasser Sabah and Aykut Hocanin, "Gamma Random Waypoint Mobility Model for Wireless Ad-Hoc Networks", *International Journal of Communication Systems*, Wiley, DOI: 10.1002/dac.2319, Volume 26, Issue 11, pp. 1433-1445, November 2013.
- [8] Hasan Abuhilal, Aykut Hocanin and Huseyin Bilgekul, "Successive Interference Cancellation for a CDMA System with Diversity Reception in non-Gaussian Noise", *International Journal of Communication Systems*, Wiley, DOI: 10.1002/dac.1375, Volume 26, Issue 7, pp. 875-887, July 2013.
- [9] Mohammad S. Ahmad, Osman Kukrer and Aykut Hocanin, "A 2-D Recursive Inverse Adaptive Algorithm", *Signal Image and Video Processing*, Springer, DOI: 10.1007/s11760-011-0218-8, Volume 7, No: 2, pp. 221-226, March 2013.
- [10] Erhan Ince, Runyi Yu and Aykut Hocanin, "Entropy-Based Subspace Separation for Multiple Frequency Estimation", *Digital Signal Processing*, Elsevier, DOI:10.1016/j.dsp.2012.09.0141, pp. 30-37, January 2013.
- [11] Mohammad S. Ahmad, Osman Kukrer and Aykut Hocanin, "Robust Recursive Inverse Adaptive Algorithm in Impulsive Noise", *Circuits, Systems & Signal Processing (CSSP)*, Springer, Volume 31, Number 2, pp. 703-710, DOI: 10.1007/s00034-011-9341-6, April 2012.
- [12] Ayse Kortun, Ali Hakan Ulusoy and Aykut Hocanin, "Robust Decorrelating Detector in Multipath Fading under Impulsive Noise", *Wireless Personal Communications*, Springer, Volume 59, Number 2, pp. 205-216, DOI: 10.1007/s11277-009-9913-y, July 2011.
- [13] Mohammad S. Ahmad, Osman Kukrer and Aykut Hocanin, "Recursive Inverse Adaptive Filtering Algorithm", *Digital Signal Processing*, Elsevier, DOI:10.1016/j.dsp.2011.03.001, Volume 21, Issue 4, pp. 491-496, July 2011.
- [14] Osman Kukrer and Aykut Hocanin, "Frequency-Response-Shaped LMS Adaptive Filter", *Digital Signal Processing*, Elsevier, Vol. 16, No. 6, pp. 855-869, DOI:10.1016/j.dsp.2006.07.004 November 2006.
- [15] Osman Kukrer and Aykut Hocanin, "An FIR Notch Filter for Adaptive Filtering of a Sinusoid in Correlated Noise", *EURASIP Journal on Applied Signal Processing*, DOI 10.1155/ASP/38190, No. 9, Vol. 2006.
- [16] Aykut Hocanin, Shanuj V. Sarin and Hakan Delic, "Medium Access Control for ATM-to-CDMA Interface", *ACM/Kluwer Wireless Networks*, Vol. 8, No. 4, pp. 337-346, July 2002.
- [17] Hakan Delic and Aykut Hocanin, "Robust Detection in DS/CDMA", *IEEE Transactions on Vehicular Technology*, Vol. 51, No. 1, pp. 155-170, January 2002.
- [18] Aykut Hocanin, Hakan Delic and Shanuj V. Sarin, "Two Dimensional CRC for Efficient Transmission of ATM Cells over CDMA", *IEEE Communications Letters*, Vol. 4, No. 4, pp. 131-133, April 2000.

## International Conference Publications

- [1] Hakan Bercag, Osman Kukrer and Aykut Hocanin, "Recursive Inverse Adaptive Filtering Algorithm with Low Computational Complexity on Sparse System Identification", *2018 IEEE International Symposium on Signal Processing and Information Technology, ISSPIT 2018*; Louisville; United States, December 2018.
- [2] Mohammad Shukri Salman, Mohammad N. S. Jahromi, Aykut Hocanin and Osman Kukrer, "A zero-attracting variable step-size LMS algorithm for sparse system identification", *BIHTEL 2012 IX. International Symposium on Telecommunications*, Sarajevo, Bosnia and Herzegovina, October 25-27, 2012.
- [3] Mohammad Shukri Salman, Mohammad N. S. Jahromi, Osman Kukrer and Aykut Hocanin, "A Weighted Zero-Attracting Leaky-LMS Algorithm", *SoftCOM 2012 International Conference on Software, Telecommunications and Computer Networks*, Croatia, September 11-13, 2012.
- [4] Qadri Mayyala, Osman Kukrer and Aykut Hocanin, "Recursive Inverse Basis Function (RIBF) Algorithm for Identification of Periodically Varying Systems", *European Signal Processing Conference (EUSIPCO-2012)*, Romania, August 27-31, 2012.
- [5] Mohammad Shukri Ahmad, Osman Kukrer and Aykut Hocanin, "A Fast implementation of quasi-Newton LMS algorithm using FFT", *The Second International Conference on Digital Information and Communication Technology and its Applications, (DICTAP 2012)*, Bangkok, Thailand, May 16-May 18, 2012.
- [6] Mohammad Shukri Ahmad, Aykut Hocanin and Osman Kukrer, "A 2-D Second-Order Recursive Inverse Adaptive Filtering Algorithm", *International Conference on Future Networks (ICFN 2011)*, Qingdao, China, August 27-28, 2011.
- [7] Mohammad Shukri Ahmad, Osman Kukrer and Aykut Hocanin, "The Effect of the Forgetting Factor on the RI Adaptive Algorithm in System Identification", *International Symposium on Signals, Circuits and Systems, (ISSCS 2011)*, Iasi, Romania, June 30-July 1, 2011.
- [8] Nasser Sabah and Aykut Hocanin, "An Improved Random Waypoint Mobility Model for Wireless Ad Hoc Networks", *International Conference on Information and Multimedia Technology (ICIMT 2010)*, Hong Kong, China, December 28-30, 2010.
- [9] Mohammad S. Ahmad, Osman Kukrer, Aykut Hocanin, "Recursive Inverse Adaptive Filter with Second Order Estimation of Autocorrelation Matrix", *IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2010)*, Luxor – Egypt, pp 482-484, December 15-18, 2010.
- [10] Nasser Sabah and Aykut Hocanin, "The Use of Negative Acknowledgement control packets (NACKs) to Improve Throughput and Delay in IEEE 802.11 Networks", *International*

- Conference on Computer Technology and Development (ICCTD 2010)*, Cairo, Egypt, pp. 136-140, November 2-4, 2010.
- [11] Sener Uysal, Mustafa Konca, Hasan Demirel and Aykut Hocanin, "An Integrated Homeland Security Surveillance System", *Mediterranean Microwave Symposium (MMS'2010)*, 25-27 August 2010.
- [12] Mohammad S. Ahmad, Osman Kukrer, Aykut Hocanin, "An Efficient Recursive Inverse Adaptive Filtering Algorithm for Channel Equalization", *European Wireless Conference (EWC 2010)*, Lucca, Italy, pp. 88-92, April 2010.
- [13] Mohammad S. Ahmad, Osman Kukrer, Aykut Hocanin, "Recursive Inverse Adaptive Filtering Algorithm", *International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control, (ICSCCW 2009)*, Gazimagusa, North Cyprus, September 2009.
- [14] Mohammad S. Ahmad, Aykut Hocanin, Osman Kukrer, "Performance of the Frequency-Response-Shaped LMS Algorithm in Impulsive Noise", *IEEE International Conference on Signal Processing and Communications (ICSPC 2007)*, Dubai, UAE, July 2007.
- [15] Hasan Abuhilal, Aykut Hocanin and Huseyin Bilgekul, "Robust MIMO-CDMA Decorrelating Detector", *IEEE International Conference on Signal Processing and Communications (ICSPC 2007)*, Dubai, UAE, July 2007.
- [16] Aykut Hocanin, Hasan Demirel and Sabina Husic, "Unequal Error Protection of PCA-Coded Face Images for Transmission over Mobile Channels", *14th European Signal Processing Conference (EUSIPCO 2006)*, September 4 - 8, Florence, Italy, 2006.
- [17] Sabina Husic, Aykut Hocanin and Hasan Demirel, "Unequal Error Protection Using Convolutional Codes for PCA-Coded Images", *International Conference on Image Analysis and Recognition, (ICIAR 2005)*, September 28-30 2005, Toronto, Canada. (Proceedings published by Springer Lecture Notes in Computer Science, (LNCS) vol. 3656, pp. 335-342, September 2005.
- [18] Aykut Hocanin and Osman Kukrer: "Estimation of the Frequency and Waveform of a Single-Tone Sinusoid Using an Offline-Optimized Adaptive Filter", *Proceedings of the International Conference on Acoustics, Speech and Signal Processing, (ICASSP 2005)*, Philadelphia, PA, USA, March 19-23, 2005, pp. 349-352.
- [19] Aykut Hocanin and Hakan Delic: "Successive Interference Cancellation Using Robust Correlation", *Proceedings of the 56th IEEE Vehicular Technology Conference, Vol. 2*, Vancouver, British Columbia, Canada, September 24-29, 2002, pp. 1221-1224.
- [20] Hakan Delic and Aykut Hocanin, "Robust Single-User Detection in DS/CDMA Systems", *Proceedings of the IEEE Wireless Communications and Networking Conference, Vol. 3*, Chicago, Illinois, September 23-28, 2000, pp. 1147-1151.



- [21] Aykut Hocanin and Hakan Delic: “Successive Interference Cancellation with Power Control in Impulsive Channel”, *IEEE Balkan Conference on Signal Processing, Communications, Circuits, and Systems*, Istanbul, Turkey, June 1-3, 2000.
- [22] Aykut Hocanin and Khalid Sayood, “Use of Residual Redundancy for Error Correction with Nonbinary Convolutional Codes”, *Proceedings of the 5th International Conference on Telecommunications*, Zagreb, Croatia, June 15-18, 1999, pp. 55-58.
- [23] Aykut Hocanin and Hakan Delic, “Mobile Access to ATM Using CDMA and Two-Dimensional CRC”, *Proceedings of the 5th International Conference on Telecommunications*, Zagreb, Croatia, June 15-18, 1999, pp. 81-86.

### **National Conference Publications**

- [1] Mohammad N. S. Jahromi, Aykut Hocanin, Osman Kukrer and Mohammad Shukri Salman, “Sparse system identification using recursive inverse adaptive algorithm”, *Proceedings of IEEE SIU 2014 (22nd National Signal Processing and Applications Conference)*, DOI: 10.1109/SIU.2014.6830557, Trabzon, Turkey, April 2014. (in Turkish)
- [2] Mohammad N. S. Jahromi, Aykut Hocanin, Osman Kukrer and Mohammad Shukri Salman, “Two dimensional zero-attracting variable step-size LMS algorithm for sparse system identification”, *Proceedings of IEEE SIU 2013 (21st National Signal Processing and Applications Conference)*, Girne, North Cyprus, April 2013. (in Turkish)
- [3] Mohammad S. Ahmad, Aykut Hocanin and Osman Kukrer, “Discrete Wavelet Transform Recursive Inverse Algorithm”, *Proceedings of IEEE SIU 2012 (20th National Signal Processing and Applications Conference)*, Fethiye, Turkey, April 2012. (in Turkish)
- [4] Qadri Mayyala, Aykut Hocanin and Osman Kukrer, “Two Dimensional FRS-LMS Adaptive Filter (2D FRS-LMS)”, *Proceedings of IEEE SIU 2012 (20th National Signal Processing and Applications Conference)*, Fethiye, Turkey, April 2012. (in Turkish)
- [5] Mohammad S. Ahmad, Aykut Hocanin and Osman Kukrer, “A Two-Dimensional Recursive Inverse Adaptive Filtering Algorithm”, *Proceedings of IEEE SIU 2011 (19th National Signal Processing and Applications Conference)*, Antalya, Turkey, April 2011. (in Turkish)
- [6] Mohammad S. Ahmad, Osman Kukrer, Aykut Hocanin, “Recursive Inverse Adaptive Filtering Algorithm in Acoustic Echo Cancellation”, *EEECS'10-6th International Symposium on Electrical & Electronics Engineering and Computer Systems*, Lefke, North Cyprus, 25-26 November 2010.
- [7] Nasser Sabah and Aykut Hocanin, “The Effect of Finite-Population on The Performance of IEEE 802.11 Ad Hoc Networks”, *EEECS'10-6th International Symposium on Electrical & Electronics Engineering and Computer Systems*, Lefke, North Cyprus, 25-26 November 2010.

- [8] Nasser Sabah and Aykut Hocanin, "The Performance of IEEE 802.11 RTS/CTS with Random Waypoint Mobility", *EEECES'10-6th International Symposium on Electrical & Electronics Engineering and Computer Systems*, Lefke, North Cyprus, 25-26 November 2010.
- [9] Mohammad S. Ahmad, Aykut Hocanin and Osman Kukrer, "A Fast-Implemented Recursive Inverse Adaptive Filtering Algorithm", *Proceedings of IEEE SIU 2010 (18th National Signal Processing and Applications Conference)*, Diyarbakir, Turkey, April 2010. (in Turkish)
- [10] Mohammad S. Ahmad, Aykut Hocanin and Osman Kukrer, "Detection in Correlated Impulsive Noise Channels Using Frequency-Response-Shaped Adaptive Filtering", *Proceedings of IEEE SIU 2009 (17th National Signal Processing and Applications Conference)*, Side, Turkey, April 2009. (in Turkish)
- [11] Hasan Abuhilal, Aykut Hocanin and Huseyin Bilgekul, "Performance of V-Blast in Impulsive Noise", *Proceedings of IEEE SIU 2008 (16th National Signal Processing and Applications Conference)*, Didim, Turkey, April 2008. (in Turkish)
- [12] Mohammad S. Ahmad, Aykut Hocanin, Osman Kukrer, "Adaptive Channel Estimation Using Frequency-Response-Shaped LMS Algorithm in DS-CDMA Systems", *Proceedings of IEEE SIU 2008 (16th National Signal Processing and Applications Conference)*, Didim, Turkey, April 2008. (in Turkish)
- [13] Hasan Abuhilal, Huseyin Bilgekul and Aykut Hocanin, "Performance of RSIC Detector for MIMO CDMA Signals with Time Mismatch", *Proceedings of IEEE SIU 2007 (15th National Signal Processing and Applications Conference)*, Eskisehir, Turkey, June 2007. (in Turkish)
- [14] Umut Hocanin and Aykut Hocanin, "Closed-Loop Power Control in DS-CDMA", *Proceedings of IEEE SIU 2006 (14th National Signal Processing and Applications Conference)*, Antalya, Turkey, April 2006. (in Turkish)
- [15] Sabina Husic, Aykut Hocanin and Hasan Demirel, "Unequal Error Protection for PCA Coded Images", *Proceedings of IEEE SIU 2005 (13th National Signal Processing and Applications Conference)*, Kayseri, Turkey, May 2005.[\(.pdf\)](#)
- [16] Ayse Kortun and Aykut Hocanin, "Performance of Closed-Loop Power Control in DS-CDMA Systems in Impulsive Noise", *Proceedings of IEEE SIU 2005 (13th National Signal Processing and Applications Conference)*, Kayseri, Turkey, May 2005.[\(.pdf\)](#)
- [17] Ayse Kortun and Aykut Hocanin, "Sönümlenmeli ve Dürtün Gürültülü Kanallarda DD-KBÇE Başarımı", *Proceedings of IEEE SIU 2004 (12th National Signal Processing and Applications Conference)*, Kuşadası, Turkey, 28-30 April 2004, pp.720-723 (in Turkish).[\(.pdf\)](#)
- [18] Ayse Kortun and Aykut Hocanin, "Performance of Spreading Codes for Asynchronous DS-CDMA Systems", *Proceedings of IEEE SIU 2003 (11th National Signal Processing and Applications Conference)*, Istanbul, Turkey, 18-20 June 2003, pp.723-729 (in Turkish).

- [19] Aykut Hocanin and Hakan Delic, "SIC in Impulsive Channels", *Proceedings of IEEE SIU 2001 (9th National Signal Processing and Applications Conference)*, Gazimağusa, TRNC, 25-27 April 2001, pp.734-740 (in Turkish).
- [20] Hakan Delic and Aykut Hocanin, "Robust Receiver Design for Spread Spectrum Systems", *Proceedings of IEEE SIU 2000 (8th National Signal Processing and Applications Conference)*, Antalya, Belek, 12-14 June 2000, pp.63-68 (in Turkish)
- [21] Aykut Hocanin and Hakan Delic, "Wireless Access to ATM Using CDMA", *BILISIM 99 (16th Informatics Congress)*, Istanbul, 15-19 December 1999, pp. 15-21.
- [22] Aykut Hocanin and Khalid Sayood, "Distance Properties of Nonbinary Convolutional Codes", *Proceedings of SIU 98 (6th National Signal Processing and Applications Conference)*, Kizilcahamam, Ankara, 28-30 May 1998, pp. 577-582 (in Turkish).
- [23] Aykut Hocanin and Khalid Sayood, "Error Correction Capability of Nonbinary Convolutional Codes", *Proceedings of SIU 97 (5th National Signal Processing and Applications Conference)*, Kusadasi, Izmir, 1-3 May 1997, pp. 377-381 (in Turkish).