EMİN ANARIM

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SHORT RESUME

Dr. Anarım received his B.Sc. (First Class, Honours) and M.Sc. and Ph.D. degrees in Electronic and Electrical Engineering from Boğaziçi University -Istanbul, Turkey. After spending 17 years in Turkish Air Force Army as an officer, he joined the Department of Electrical and Electronics Engineering of Boğaziçi University, Istanbul, Turkey, where he is presently a full-time professor. His current research interests are in the field of Mobile Communications, Image and Video Sequence Coding Signal Processing, Software Quality Measurements, Cryptology, Computer and Network Security, Watermarking.

He has published more than 250 papers carrying his name have appeared in various journals and conference proceedings. Dr. Emin Anarım is also presently an adjunct Professor of George Washington University. He has given several courses to industry and government institutions on Signal Processing and Video Coding and Secure Telecommunications.

EDUCATION

- Ph.D. Degree, Dept. Electrical and Electronics Engineering, Boğaziçi University, İstanbul-Turkey (1985).
- M.S. Degree,, Dept. Electrical and Electronics Engineering, Boğaziçi University, İstanbul-Turkey (1983).
- B.S. Degree, Dept. Electrical and Electronics Engineering, Boğaziçi University, İstanbul-Turkey (1981).
- B.S. Degree, in Turkish Air Force Academy, İstanbul-Turkey (1976).

AWARDS & HONORS:

- **Best Paper Awards :** E. Öztaş, M. Yıldırım, Ç. Yılmam, E. Anarım, "Computer Generated Image Processing, Thin-Plate Spline Analysis (TPS) and TPS-Based Treatment Objective (T-O) to Evaluate Class III Effects", 7th International Congress of the Turkish Orthodontic Society, 13-16 June, 2000, İstanbul.
- **Academic Teaching Award** (Turkish Air Force Academy)1985
- **Academic Teaching Award** (Turkish Air Force Academy)1988

TURKISH AIR FORCE ACADEMY (1981-1996)

- Taught courses in Communications, Signal Processing, Digital Systems, Communication Systems, Statistical Communication Theory, Signal Analysis, Industrial Signal Processing, Image Processing, Probabilistic System Analysis.

BOĞAZİÇİ UNIVERSITY (1985-today)

- Professor ('92), Department of Electrical-Electronics Engineering; Assoc. Prof. ('87), Assist. Prof. ('85).

- Taught courses in Communications, Signal Processing, Mobile Networks, Mobile Communications, Detection and Estimation Theory, Morhphological Signal Processing, Spectrum Estimation, Cryptography and Network Security at both graduate and undergraduate levels. Supervised several master and Ph.D. theses and directed research in digital signal processing, digital video and image processing. Established a Signal and Image Processing laboratory (BUSIM) and Information and communication Security laboratory (BUICS).

- Served in committees for the modernization of curricula.

- Rector Consultant (2021-2016)

GEORGE WASHINGTON UNIVERSITY (2000-2007)

- Adjunct Professor of George Washington University Department of Electrical and Computer Engineering.

- Taught courses in Computer and Network Security, Switched Telecommunication Networks, Telecommunication Protocols, Wireless Networks.

INDUSTRIAL EXPERIENCE

- **OPTECH Company**-Founder- (2016-Today)
- **ADAX** (Attack Detection And Countermeasures Simulation) Project –**ITEA3** – wins EUREKA Innovation Award 2017-(2013-2016)
- **FIBABANKA A.S**., "Credit Analysis and Flow Process based on Machine Leraning Techniques " Research Project, 2020-2021.
- **FIBABANKA A.S**., "Model Based Digital Payment Systems "., Research Project, 2019-2020.
- **BORUSAN A.S**., "A new Optimized Transportation System with Special Constraints " Research Project, 2017-2018.
- **HAVELSAN A.S**., " A Novel Data Association Algorithm For Bearing Angle and Ghost Elimination In Passive Radar Systems " Research Project, 2018-2020.
- **KRON A.S**., "Cloud Based Privileged Access System ", Research Project, 2018-2020.
- **TUBITAK-BILGEM,** "Fiber Optic Communication Security and Interception Techniques ", Research Project, 2018-2020.
- **TUBITAK 1003,** "Cloud Based Privileged Access System ", PI, Research Grant, 2017-2021.
- **Bogazici University Research Fund Grant** " Adjustment of Digital Screens to Compensate the Eye Refractive Errors via Deconvolution " 2019-2020.
- **Bogazici University Research Fund Grant** "Attacks on A5-1 Algorithm for GSM Mobile System," 2012-2013.

- **Bogazici University Research Fund Grant**, "Age group detection using smartphone motion sensors". 2015-2016.
- **PLUSONE MINUSONE Company** –Cofounder (2009-2017)
- **NETAŞ,** UWB Radar System (2008-2011)
- **FORD OTOSAN**, Bluetooth Voice Control in Car (2007-2008)
- **FORD OTOSAN**, Active Noise Control in Car (2007-2008)
- **AIRTIES,** Link Adaptation in IEEE 802.11n (2008-2009)
- **AIRTIES,** Channel Asisgment in IEEE 802.11n (2008-2009)
- **NORTEL-NETAS**, MCCP Patch Software (2007-2008)
- **ARAS HOLDING**, ERP Software Project (2004-2007)
- **TURKCELL** , Consulting for Network Security project(2001-2002)
- **OYAKBANK** , Consulting for Network Security project(2004-2006)
- **SSM-SAP** Project (2003-2004)
- **TUNAÇELİK** , Consulting for ERP software project, (1999-2000)
- **ROKETSAN** , a) Low-level image processing algorithms; b) Target recognition and tracking with computer vision techniques c)Embedded software configuration management in guidance and control, (1997-2003).
- **HAVELSAN**, General Manager. Worked on the planning and specifications of the Automatic Data Systems (Turkish Air Forces Integrated Management Information System) strategic communications network with emphasis on switching, signaling, and interoperability and Military Firewall and Visual Systems for Flight Simulators, (1996-1997).
- **MARMARA RESEARCH CENTER** , a) Low-level image processing algorithms; b) Quality control of PCB boards with computer vision, (1993-1996).
- **ARÇELİK** , Sound quality control of home appliances and signal processing techniques for industry, (1995-1996).

COURSES TAUGHT

- **Graduate Courses:** Digital Signal Processing, Image Processing, Digital Communications Systems, Detection and Estimation Theory, Stochastic Processes, Probabilistic System Analysis, Adaptive Filters, Video Coding, Computer Vision, Multi resolution (Wavelets) Signal Processing, Data Compression, Digital Spectral Analysis, Computer and Network Security, Telecommunication Switching, Morphological Signal Processing, Multidimensional Signal Processing, Computer and Network Security, Telecommunication Networks, Telecommunication Protocols, Wireless Networks.
- **Undergraduate Courses:** Digital Systems, Communication Systems, Statistical Communication Theory, Signal Analysis, Industrial Signal Processing, Image Processing.

RESEARCH INTERESTS

- Mobile Communication
- Image and Video Processing
- Spread Spectrum Communication Systems
- Cryptology, Computer and Network Security

- Array Processing-Passive Radars.
- Multi Party Computation-Fair Exchanged MPC
- Homomorphic Encryption
- Deep Packet Inspection
- Attacks and Anamoly Detection
- Age of Information

ACTIVITIES

- Member of Advisory Committee of TESİD (2013-2017)
- Member of Advisory Committee of TÜBİTAK-MAM (2003-2004)
- Consulting Editorial Board, Turkish Journal of Elect.Eng. and Computer Science
- Consulting Editorial Board, Journal of Science and Technology, Turkish Armed Forces.
- Consulting Editorial Board, Journal of Naval Science and Engineering, Turkish Navy Forces.
- Consulting Editorial Board, Journal of Science and Engineering, Anadolu University.
- Consulting Editorial Board, Journal of Science and Engineering, İstanbul University.
- Reviewer, IEEE Transactions on Dependable and Secure Computing
- Reviewer, IEEE Communication Letters
- Reviewer, IEEE Signal Processing Letters
- Reviewer, Digital Signal Processing.
- Reviewer, Applied Digital Signal Processing.
- Reviewer, Signal Processing.
- Reviewer, IEEE Transactions on Image Processing.
- Has been supervising to completion 110 master students and 11 Ph.D. students
- Has obtained grants from Boğaziçi University Research Fund totalling 100,000 $, and external funding from TUBITAK: National Research and Scientific Council totalling 350,000 $ and Defence Ministry totalling 1,750,000 $.
- Has given several continuing education courses to industry and government institutions on Digital Communication Digital Telephony, Signal Processing, and Video Coding.
- Co-Chairman of the International Conference on Telecommunications: ICT'96, the National Signal Processing Conferences: SIU93, SIU'97. Also member on various Conference Program Committees, e.g., National Electrical Engineering Conferences, Simulation Technologies Conferences, Int. Symposia on Computers and Information Sciences (ISCIS 1996), ICASSP-2000, EMBS 2001, EUSIPC0-2005, ICPR 2006,WCSN 2013.
- MDSP, Workshop on Image Processing, FRANCE.
- GRETSI, Image Processing, FRANCE.
- NATO-ASI, Workshop on Nonparametric Functional Estimation and Related Topics, GREECE .
- NATO-ASI, Workshop on Fractal Geometry Analysis, CANADA.
- NATO-ASI, Workshop on System Identifications, ITALY.
- ICTP-UNESCO, Advanced Workshop on Telematics, ITALY.
- NATO-ASI, Advanced Workshop on Performance Limits in Digital Communications Theory and Practice, ITALY.

- NATO-ASI, Advanced Workshop on Digital Signal Processing, FRANCE.

Journal Papers

1. **E. Anarım**, Y.İstefanopulos., Statistical Analysis of Pisarenko Type Frequency Estimation, Signal Processing, Vol. 24, No. 3, pp. 291-298, September 1991.
2. E. Anarım, B. Sankur, Robust Detection by AR Frequency Estimation, Signal Processing 30, 271-277, 1993.
3. Y. Yemez, **E. Anarım,** Y. İstefanopulos, Causal and Semi-Causal AR Image Identification Using the EM Algorithm, IEEE, Trans. on Image Processing, Vol. 2, No. 4, pp. 523-528, Oct. 1993.
4. E. Anarım, İ.C. Göknar, Decision Based Directional Edge Detector, Signal Processing, Vol. 35, No. 2, Jan. 1994.
5. H. Çağlar, O. Alkın, **E. Anarım,** B. Sankur, New Efficient Shuffled Block Transform Design Technique, Electronic Letters, 30, 834-835, May 1994.
6.E. Anarım, B. Sankur, H. Çağlar, I. Celasun, Design of Nonseparable 2-D Linear Phase Filter Banks via Shuffling Operations, Electronic Letters, 30, 843-844, May, 1994.
7.E. Anarım, H. Uçar, Y. İstefanopulos, Image Restoration in Frequency Domain via EM Algorithm of Images, IEEE Trans. Image Processing, 7, 110-116, January 1996.
8.Y. Yemez, T. Aydın, B. Sankur, **E. Anarım,** Multidirectional and Multiscale Edge Detection via M-Band Wavelet Transform, IEEE Trans. Image Processing, Vol. 5, pp. 1370-1377, 1996.
9.H. Çağlar, S. Güntürk, B. Sankur, **E. Anarım**, VQ-Adaptive Block Transform Coding of Images, IEEE Trans. on Image Processing, Vol. 7, pp. 110-116, January 1998.
10.M. Altınkaya, B. Sankur, **E. Anarım**, Effect of Prefiltering for Tone Estimation, Elektrik: Turkish Journal of Electrical Engineering and Computer, 6, 23-35, 1998.
11.Y. Yemez, B. Sankur, **E. Anarım**, A Quadratic Motion-Based Object-Oriented Video Codec, Signal Processing: Image Communication, Vol. 15, pp. 729-766, 2000.
12.Ç. Eroğlu Erdem, G. Karabulut, E. Yanmaz, **E. Anarim** "Motion Estimation in the Frequency Domain Using Fuzzy C-Planes Clustering, IEEE Trans. on Image Processing, October 2001.
13.H. Çağlar, S. Güntürk, **E. Anarım**, B. Sankur, Permutation Based Design of Orthogonal Block Transforms and Filter Banks, Multidimensional Systems and Processing, 12, 63-79, 2001.
14.M. Altınkaya, H. Deliç, B. Sankur, **E. Anarım**, Subspace-Based Frequency Estimation of Sinusoidal Signals in Alpha-Stable Noise, Signal Processing, 82(11), 151-171, November, 2002.
15.C. Evci, K. Ciliz, **E. Anarim**, B. Sankur, Wireless Networks in Turkey: A jewel in the Crowd, Alcatel Review, 1-9, 3rd Quarter, 2004.
16.H. Özer, B. Sankur, N. Memon, **E. Anarım**, Perceptual Audio Hashing Functions, EURASIP Journal on Applied Signal Processing, 2005:12, 1–14.
17.I. Erguler and **E. Anarim**,"A New Cryptanalytic Time-Memory Trade-Off for Stream Ciphers", (Proc. ISCIS'05), Lecture Notes in Computer Science, LNCS, Springer Verlag, Vol. 3733 pp.215-223., 2005.
18.M.Ö. Depren, M. Topallar, **E. Anarım**, K. Cılız, "An Intelligient Intrusion Detection System (IDS) for Anomalyand Misuse Detection in Computer Networks", Expert Systems and Its Applications , October, 2005.
19.Gürkan Gür, Yücel Altuğ, Fatih Alagöz, **E. Anarim** 'Image Error Concealment Using Watermarking with Thumbnail Images for Wireless Channels' IEEE Communication Letter, February, 2007.
20.Yücel Altuğ, Nafiz Polat, Kıvanç Mıhçak, **E. Anarım** "A Note on the Periodicity and the output Rate of Bit Search Type Generators" IEEE Trans. on Information Theory, February 2008.
21.M. Altınkaya, **E. Anarim**, B. Sankur 'Phase Dependence Mitigation for Autocorrelation Based Frequency Estimation' Digital Signal Processing, February 2008.
22.A. Yavuz, Fatih Alagöz, **E. Anarim**, "A new multi-tier adaptive military MANET security protocol using hybrid cryptography and signcryption" Turkish Journal of Electrical Engineering & Computer Sciences, January 2010.
23. İ. Ergüler, **E. Anarim**, "Scalability and Security Conflict for RFID Authentication Protocols" Wireless Personal Communications - Special Issue on Intelligent RFID Network and Innovative, March 2011.

24. İ. Ergüler, **E. Anarim**, "A Salient Missing Link in RFID Security Protocols" The Special issue on "Security and Resilience for Smart Devices and Applications" <u>EURASIP Journal on Wireless Communications and Networking,</u> April 2011.

25. İ. Ergüler, **E. Anarim**, "Security Analysis of an Ultra-lightweight RFID Authentication Protocol--SLMAP" The 2010 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA 2010), <u>Security and Communication Networks</u>, Volume 5, Issue 3, pages 287–291, March 2012

26. İ. Ergüler, **E. Anarim**, "Breaking the Spacing Based Authentication Protocol", The 2010 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA 2010), <u>Information, An International Interdisciplinary Journal,</u> pages 1793–1804, March 2013.

27. İ. Ergüler, **E. Anarim**, "Security Flaws in a Recent RFID Delegation Protocol" <u>Personal and Ubiquitous Computing (Springer) Special Theme on User-Driven RFID Applications and Challenges</u>, pages 337–349, March 2012.

28. İ. Ergüler, **E. Anarim**, "Practical Attacks and Improvements to an Efficient RFID Authentication Protocol" <u>Concurrency and Computation: Practice and Experience</u>, Wiley, pages 2069-2080, October 2012.

29. A. Çil, M. Akar, **E. Anarim**, "Adaptive Optimization of EDCA Parameters for Improved QoS in Multi–Media Applications" <u>Turkish Journal of Electrical Engineering & Computer Sciences</u>, pages 1369–1388, December 2012.

30. İmran Ergüler, **E.Anarim**, "Unbalanced States Violates RFID Privacy" 2011 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA 2011), <u>Special Issue on IT Convergence Security, Journal of Intelligent Manufacturing (JIM) - Springer (SCIE),</u> 25.2 (2014): 273-281.

31. H. Karaca, T. Kurt, **E. Anarim**, Zafer Dicle, "Auction-based Throughput Maximization in Cognitive Radio Networks under Interference Constraint" <u>Wireless Personal Communications</u>, 72.2 (2013): 1259-1275.

32. V. Sarı, M. Akar, **E. Anarim**, "Location Estimation Using RSS Measurements with Unknown Path Loss Exponents," <u>EURASIP Journal on Wireless Communications and Networking,</u> 2013, 1-14.

33. Orhan Ermiş, **E.Anarim**," An Improved Conference Key Agreement Protocol for Dynamic Groups with Efficient Fault Correction"<u>Security and Communication Networks</u>,1431–1625, 2015.

34. D. Basaran, A. T. Cemgil and **E. Anarim**, "A Probabilistic Model Based Approach For Aligning Multiple Audio Sequences", <u>IEEE Transactions on Audio, Speech and Language Processing,</u> 1160-1171, 2015.

35. Volkan Senyuva, G. Kurt, and **E. Anarim**, "Electromagnetic Imaging of Closely Spaced Objects using Matching Pursuit Based Approaches", <u>IEEE Antennas and Wireless Propagation Letters,</u> 1179 - 1182, Vol. 15, 2016.

36. Oğuzhan Ersoy, **E. Anarim**, "A CRT-based Verifiable Secret Sharing Scheme Secure Against Unbounded Adversaries", <u>Security and Communication Networks,</u> Volume 9, Issue 17, 25, pp. 4416–4427, 2016.

37. Volkan Senyuva, G. Kurt, and **E. Anarim**, "Compressive Sensing Based Joint Frequency Offset and Channel Estimation for OFDM",<u>EURASIP Journal on Wireless Communications and Networking,</u> 2016 (1), 86, 2016.

38. Orhun Kara, İ. Ergüler, **E. Anarim**, "A New Security Relation Between Information Rate and State Size of a Keystream Generator" <u>Turkish Journal of Electrical Engineering & Computer Sciences</u>, 1916-1929, 2016.

39. Orhan Ermiş, Ş. Bahtiyar, **E.Anarim**," A Key Agreement Protocol with Partial Backward Confidentiality, <u>Computer Networks Journal</u>, 129, 159-177, 2017.

40. Orhan Ermiş, Ş. Bahtiyar,**E.Anarim**," A Secure and Efficient Group Key Agreement Approach for Mobile Ad Hoc Networks", <u>Elsevier Ad Hoc Networks</u>, 67, 24-39, 2017.

41. D. Başaran, A. T. Cemgil, **E. Anarim**, "Multiresolution Alignment for Multiple Unsynchronized Audio Sequences using Sequential Monte Carlo Samplers", <u>Digital Signal Processing Processing: A</u> Review Journal, pp. 77-85, 2018.

42. D. Başaran, A. T. Cemgil, **E. Anarim**, "Multiresolution Alignment for Multiple Unsynchronized Audio Sequences using Sequential Monte Carlo Samplers", <u>SoftwareX, 2018</u>.

43. Oğuzhan Ersoy, **E. Anarim**, "Homomorphic Extensions to CRT-based Secret Sharing", <u>Applied Discrete Mathematics</u>, 2020.

44. Ç. Ateş, S. Özdel, **E. Anarım,** "Graph-Based Fuzzy Approach Against DDoS Attacks," <u>Journal of Intelligent and Fuzzy Systems</u>, 2020.

45. D. Erhan and **E. Anarım,** "Hybrid DDoS Detection Framework Using Matching Pursuit Algorithm," <u>IEEE Access</u>, 2020..

46. D. Erhan and **E. Anarım,** "Boğaziçi University Distributed Denial of Service Dataset," Data in Brief, 2020.

47. M.Yıldırım, A. Aykan Kılıç, E. **Anarım**"Boğaziçi University Mouse Dynamics Dataset" to appear in Data in Brief, 2021.

48. M. Yıldırım, **E. Anarım**, "Mitigating Insider Threat by Profiling Users Based on Mouse Usage Pattern: Ensemble Learning and Frequency DomainAnalysis" International Journal of Information Security, 2021.

49. R. Fouladi, O. Ermiş, **E. Anarım**, "A DDoS Attack Detection and Defense Scheme Using Time Series Analysis for SDN" Journal of Information Security and Applications, 2020.

50. R. Fouladi, O. Ermiş, **E. Anarım**, "A DDoS attack detection and countermeasure scheme based on DWT and auto-encoder neural network for SDN" to appear in Computer Networks, 2021.

51. D. Erhan and **E. Anarım,** "A Statistical Approach for Detection of DDoS Attacks" to appear in IEEE Access, 2021.

52. Ramin Fouladi, Orhan Ermiş, **E. Anarım**, "A DDoS attack detection and countermeasure scheme based on CWT and convolutional neural network for SDN"to be submitted to Engineering Applications of Artificial Intelligence, 2021

53. Okan Ulusoy, Ceyhun Akgül, **E. Anarım**, "Improving Image Captioning with Language Modeling Regularization" to appear in IEEE Transactions on Image Processing, 2021.

54. Onur Keleş, **E. Anarım** "Adjustment of Digital Screens to Compensate the Eye Refractive Errors via Deconvolution" to appear in IEEE Transactions on Image Processing, 2021.

55. Alper Köse, Mutlu Koca, **E. Anarım,** Muriel Médard "Graph-Theoretical User Pairing in NOMA Systems" to appear in IEEE Communication Letters, 2021.

Book Chapters :

Selahattin Gökçeli, Güneş Karabulut Kurt, **E. Anarim**, Cognitive Radio Testbeds: State of the Art and an Implementation, **Chapter** Spectrum Access and Management for Cognitive Radio Networks, Part of the series Signals and Communication Technology pp 183-210, Springer, 2017.

Under Review Papers in 2021

1. Ermiş, O., Çantalı, G., Bahtiyar, Ş., Anarım, E., and Çaglayan, M.U., "Three-Tier Secure File Sharing System with Efficient Participant Revocation." to be submitted to IEEE Transactions on Dependable and Secure Computing.

2. E. Davarcı, B. Soysal, İ. Ergüler, E. Anarim, "Age Group Detection Using Smartphone Motion Sensors" submitted to IEEE Transactions on Computers , 2019.

SCI-E Index LNCS Publications and Others

1. I. Erguler and **E. Anarim**,"A Clock Controlled Stream Cipher with Dual Mode" Complex Computed Networks (CNN 2005), Springer Proceedings in Physics Series 2006

2. A. Yavuz, F. Alagöz, **E. Anarim**, "HIMUTSIS: Hierarchical Multi-Tier Adaptive Ad-hoc Network Security Protocol Based on Signcryption Type Key Exchange Schemes". Lecture Notes in Computer Science LNCS, (Proc. of the 21th International Symposium on Computer and Information Sciences), Springer-Verlag, 2006.

3. A. Yavuz, **E. Anarim**, F. Alagöz, "Improved Merkle Cryptosystem" Lecture Notes in Computer Science (Proc. of the 21th International Symposium on Computer and Information Sciences), <u>Lecture Notes in Computer Science, LNCS, Springer Verlag, 2006</u>

4. I. Erguler, **E. Anarim** "A Lookup Table Model for Time-Memory Trade-Off Attacks on Binary Additive Stream Ciphers "((Proc. of the 21th International Symposium on Computer and Information Sciences)), <u>Lecture Notes in Computer Science, Springer Verlag, LNCS, 2006</u> .

5. C. Taşkıran, **E. Anarım,** B. Sankur, On Classification of Airplane Images for Automatic Target Recognition, <u>Journal on Communications</u>, ISSN-0866-5583, Vol 45, PP.68-72, May-June 1994, Hungary.

6. Ramin Fadaei Fouladi, Cemil Eren Kayatas, and **E. Anarim**, "Statistical Measures: Promising Features for Time Series Based DdoS Attack Detection" <u>Journal of Proceeding</u>, 2018.

Turkish Journal Papers

1. E. Anarım, B. Sankur, "Tone Frequency Estimation Capability and Statistical Characterization of the Pisarenko Technique". <u>Turkish Air Force Academy Journal</u>, June 1986.

2. E. Anarım, B. Sankur, "Parametric Spectrum Methods in Tone Frequency Estimation and Its Numerical Problems". <u>Turkish Air Force Academy Journal</u>, March 1987.

3. E. Anarım, "The Role of the Fiber Optics In Tactical Communication Systems." Turkish Air Force Academy Journal, January 1988.

4. E. Anarım, B. Sankur, H. Örüç, "The Effect of Decorrelation Parameter on The ALE Type Frequency Estimator". <u>Turkish Air Force Academy Journal</u>, September, 1989.

5. E. Anarım, F. Eryurtlu M. Atceter, "2-D DFT Calculation from 1-DFT" <u>Turkish Air Force Academy Journal</u>, pp.35-53, July 1990.

6. E. Anarım, C. Mert," Performance Analysis of an LPC Based Secure Voice Communication System", <u>Turkish Air Force Academy Journal</u>, pp. 13-32, June 1991.

7. E. Anarım, "Decision Theory and Computers", Turkish Air Force Academy Journal**,** June, 1984.

8. E. Anarım, "Fast Algorithms for Linear Equations and Matrix Inversion Techniques" <u>Turkish Air Force Academy Journal</u>, Feb. 1985.

9. E. Anarım, Y. İstefanopulos, B. Sankur, "Adaptive Line Enhancer with Optimum Delay Parameter", <u>Bogazici University Engineering Journal</u>, 10-13, 165-179, (1985).

International Conference Papers

1.E. Davarcı, **E. Anarim** "Hybrid Architecture for Gender Recognition Using Smartphone Motion Sensors" EUSIPCO 2021, 2021.

2.Ç.Ateş S.Özdel and **E.Anarım**, "A new Network Anomaly Detection Method based on Header Information Using Greedy Algorithm" in CoDIT'19 Paris, France, 2019.

3.Ç.Ateş S.Özdel and **E.Anarım**, "A Novel Data Association Algorithm for Ghost Elimination in Passive Radar Systems" International Conference on Advanced Technologies for Communications -ATC 2019 Vietnam .

4.Ç. Ateş, S. Özdel, **E. Anarım**, "Entropy-Based DDoS Attack Detection using Greedy Algorithm," in DISP '19, Oxford, United Kingdom, 2019.

5.Ramin Fouladi, Orhan Ermiş, and **E.Anarım**, "Anomaly-Based DDoS Attack Detection by Using Sparse Coding and Frequency Domain" 2019 IEEE 30th Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 2019.

6.D. Erhan and **E. Anarım**, "DDoS detection using statistical modeling," in DISP '19, Oxford, United Kingdom, 2019.

7.Onur Keleş, **Emin Anarım** "Adjustment of Digital Screens to Compensate the Eye Refractive Errors via Deconvolution" International Conference on Image Processing Theory Tools & Applications, IPTA 2019, İstanbul .

8.Derya Erhan, **Emin Anarım**, "Statistical Properties of DDoS Attacks" CODIT 2019, Paris,France.

9.Çağatay Ateş, Süleyman Özdel, **E. Anarım**, " Graph-Based Anomaly Detection Using Fuzzy Clustering " INFUS 2019, İstanbul, Turkey.

10.E. Davarcı, B. Soysal, İ. Ergüler, **E. Anarim**, "Age Group Detection Using Smartphone MotionSensors" EUSIPCO 2017, 2017.

11. Dogac Basaran, Ali Taylan Cemgil, **E.Anarim**," SMC Samplers forMultiresoltion Audio Sequence Alignment", ICASSP , 2013.

12. Ramin Fadaei Fouladi, Cemil Eren Kayatas, and **E. Anarim**, "Statistical Measures: Promising Features for   Time Series Based DdoS Attack Detection " IWCIM 2017 as a satellite workshop to EUSIPCO 2017 on September 2, 2017.

13. Volkan Senyuva, G. Kurt, and **E. Anarim**, "Compressed Sensing Technique for Synchronization and Channel Estimation in OFDMA Uplink Transmissions" EUSIPCO 2017, 2017.

14. Orhan Ermiş, Ş. Bahtiyar, **E.Anarim**, U. Çağlayan" A Comparative Study on the Scalability of Dynamic Group Key Agreement Protocols, ARES '17 Proceedings of the 12th International Conference on Availability, Reliability and Security ARES, 2017.

15. Ramin Fadaei Fouladi, Cemil Eren Kayatas, and **E. Anarim**, Frequency Based DDoS Attack Detection Approach Using Naive Bayes Classification, 39th International Conference on Telecommunications and Signal Processing (TSP), June 27-29, 2016, in Vienna, Austria.

16. Orhan Ermiş, **E.Anarim**," A Secure and Efficient Group Key Agreement Approach for Mobile Ad Hoc Networks"Balkan CryptSec 2014.

17. Orhan Ermiş, **E.Anarim**," *Open Problems for Group-Key Agreement Protocols on Vehicular Ad-hoc Networks*"The 2nd International Conference on Connected Vehicles & Expo (ICCVE 2013) Dec 2-6, 2013-Las Vegas, Nevada.

18. Orhan Ermiş, **E.Anarim**," An Improved Fault-Tolerant Conference-Key Agreement Protocol with Forward Secrecy" SIN 2013.

19. Melih Kahraman, **E.Anarim**, "Spectrum-Aware Dynamic Frequency Reuse (SADFR) for SON-Based OFDMA HetNets, " IEEE Wireless Communications and Networking Conference (WCNC) 2014.

20. Dogac Basaran, Ali Taylan Cemgil, **E.Anarim** "Model Based Multiple Audio Sequence Alignment" Applications of Signal Processing to Audio and Acoustics (WASPAA), 2011 IEEE Workshop, 2011.

21.H. Karaca, T. Kurt, **E. Anarim**, Zafer Dicle "System Throughput Versus SINR Constraint In Cognitive Radio Networks" 13th IEEE International Workshop on Signal Processing Advances in Wireless Communications, SPAWC, 2012.

22.B. Öztaş, T. Kurt, **E.Anarım** "A Survey of Social Based Mobility Models for Ad Hoc Networks" WVITAE, 2011

23.M. Bora Zeytinci, F. Kerem Harmancı, Mehmet Akar, **E. Anarım**, 'Joint Estimation of Propagation Parameters and Mobile Positioning in Cellular Networks' The Fifteenth Yale Workshop on Adaptive and Learning Systems, New Haven, CT, June 2011.

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