

Mustafa Ersel Kamasak

Istanbul Technical University
Department of Computer Engineering
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Education

Purdue University (8/99- 5/05) West Lafayette, IN
PhD. in Electrical and Computer Engineering GPA: 3.61/4.0
Thesis : "Statistical Methods for Reconstruction of Parametric Images from Dynamic PET Data".
Advisor: Prof. Dr. Charles A. Bouman

Bogazici University (9/97-6/99) Istanbul, Turkey
M.S. in Electrical and Electronics Engineering GPA: 3.35/4.0
Thesis : "Effects of Compression on Face Recognition Algorithms".
Advisor: Prof. Dr. Bulent Sankur

Bogazici University (9/93-6/97) Istanbul, Turkey
B.S. in Electrical and Electronics Engineering GPA: 3.33/4.0
Project : "Design of Error Correcting Codes for Wireless ATM networks".
Advisor : Prof. Dr. Khalid Sayood

Awards and Scholarships

Medical Device Design Comptetition - 2009
GlaxoSmithKline Young Investigator Award - 2006
Haci Omer Sabanci Scholarship - 4 years
Bogazici University Scholarship - 1 year

Work Experience

Istanbul Technical University Istanbul, Turkey
November 2012, - , Associate Professor
January 07, November 2012, Assistant Professor
Assistant Professor of Computer Engineering Department.

Gulhane Military Medical Academy Ankara, Turkey
January 06, November 2006, Military Service
Sublieutenant at the Biomedical and Clinical Engineering Center.

Siemens Medical Inc. Malvern, Pennsylvania
June 05, August 05, Internship
Development of statistical inference and machine learning algorithms for the classification of ultrasound heart images.

Purdue University EISL Lab. West Lafayette, Indiana
January 04, May 05, EISL Lab Coordinator

Purdue University EISL Lab. and IUPUI Hospital West Lafayette, Indiana
March 01, May 05, Graduate Research Assistant
Development of imaging algorithms for PET tomography.

Purdue University EISL Lab. and TI Inc. West Lafayette, Indiana
August 00, March 01, Graduate Research Assistant
Development of software drivers on DSP environment for inkjet printers that supports dynamic print masks.

Purdue University, ECE Department
June 99, August 01 , Graduate Teaching Asistant
ECE495M - Mobile Communications Project
ECE362 - Microprocessor Design and Interface

West Lafayette, Indiana

Destek Computer Systems and Solutions, IT Department
June 98, February 99, Software Engineer
Development of software drivers for credit card production machines.

Istanbul, Turkey

Kartsis Card Systems, Special Projects Department
July 97, August 98, Software Engineer

Istanbul, Turkey

Development of a server for P.O.S. machines for Windows NT, and integration with commercial auditing software.

Bogazici University
June 97 - August 99, Teaching Assistant
EE475 - Introduction to Image Processing
EE471 - Communication Engineering I
EE572 - Statistical Signal Processing

Istanbul, Turkey

Siemens Automation, Automation Department
June 96 - September 96, Internship
Programming PLC machines.

Istanbul, Turkey

HES Fibel, Research and Development
June 95 - August 95, Internship

Kayseri, Turkey

Design of microprocessor based quality control board that measures SNR on fiber-optic cables.

Memberships IEEE, Eurasip, IS&T and SPIE

Projects

Ongoing

- Istanbul Development Agency: “Early Detection and Scanning System for Breast Cancer” (Investigator)
- TUBITAK-1001: “Reduction of Out-of-focus Blur in Tomosynthesis Images” (Co-PI)

Completed

- TUBITAK-KARIYER: “Analytic Methods for the Computation of Bias and Variance in Compartment Model Parameter Estimates” (PI)
- Industrial: “Software development for Tomosynthesis reconstruction” (PI)

Publications *Publications can be downloaded from <http://web.itu.edu.tr/kamasak/pubs/>*

Books

- [34] Mustafa E. Kamasak. *Statistical Methods for Dynamic Positron Emission Tomography: Kinetic Parameter Estimation*. LAP LAMBERT Academic Publishing, 2010.

Articles

- [A6] Mustafa E. Kamasak. “Effects of Spatial Regularization in Kinetic Parameter Estimation for Dynamic PET”. In: *Biomed. Sig. Proc. and Cont.* 9 (Jan. 2014). doi: 10.1016/j.bspc.2013.08.011, pp. 6–13.
- [A7] Mustafa E. Kamasak, Bradley T. Christian, Charles A. Bouman, and Evan D. Morris. “Quality and Precision of Parametric Images Created from PET Sinogram Data by Direct Reconstruction: Proof of Concept”. In: *IEEE Trans. on Medical Imaging* 33.3 (2014). doi:10.1109/TMI.2013.2294627, pp. 695–707.
- [A9] Ilker Bayram and Mustafa E. Kamasak. “A Simple Prior For Audio Signals”. In: *IEEE Trans. on Audio, Speech and Lang. Proc.* 21.6 (2013). doi: 10.1109/TASL.2013.2245652, pp. 1190–1200.

- [A11] Metin Ertas, Isa Yildirim, Mustafa Kamasak, and Aydin Akan. “Digital breast tomosynthesis image reconstruction using 2D and 3D total variation minimization”. In: *Biomedical Engineering Online* 12 (2013). doi:10.1186/1475-925X-12-112, p. 112.
- [A17] Saeed Seyyedi, Kubra Cengiz, Mustafa Kamasak, and Isa Yildirim. “An Object-Oriented Simulator for 3-D Digital Breast Tomosynthesis Imaging System”. In: *Computational and Mathematical Methods in Medicine* (Sept. 2013). doi:10.1155/2013/250689.
- [A23] T. Avsar, D. Korkmaz, M. Tutuncu, N. O. Demirci, S. Saip, M. E. Kamasak, A. Siva, and E. T. Turanli. “Protein Biomarkers for Multiple Sclerosis: Semi-quantitative Analysis of Cerebral Fluid Candidate Protein Biomarkers in Different Forms of Multiple Sclerosis”. In: *Multiple Sclerosis Journal* 18.8 (Aug. 2012). doi: 10.1177/1352458511433303, pp. 1081–1091.
- [A25] Ilker Bayram and Mustafa E. Kamasak. “Directional Total Variation”. In: *IEEE Signal Proc. Letters* 19.12 (Dec. 2012). doi: 10.1109/LSP.2012.2220349, pp. 781–784.
- [A29] Mustafa E. Kamasak. “Computation of Variance in Compartment Model Parameter Estimates from Dynamic PET Data”. In: *Med. Phys.* 39.5 (May 2012). doi: 10.1118/1.3702456, pp. 2638–2648.
- [A33] Gulsen Kaya, Okan Ersoy, and Mustafa E. Kamasak. “Support Vector Selection And Adaptation for Remote Sensing Classification”. In: *IEEE Trans. on Geoscience and Remote Sensing* 49.6 (June 2011). doi: 10.1109/TGRS.2010.2096822, pp. 2071–2079.
- [A38] Mustafa E. Kamasak. “Clustering dynamic PET images on the Gaussian distributed sinogram domain”. In: *Comp. Meth. and Prog. in Biomed.* 93.3 (Mar. 2009), pp. 217–227.
- [A42] Mustafa Cavusoglu, Tolga Ciloglu, Yesim Serinagaoglu, Mustafa E. Kamasak, Osman Eroglu, and Timur Akcam. “Investigation of Sequential Properties of Snoring Episodes for Obstructive Sleep Apnoea Identification”. In: *Physiol. Meas.* 29.8 (Aug. 2008), pp. 879–898.
- [A53] Mustafa Cavusoglu, Mustafa E. Kamasak, Osman Eroglu, Tolga Ciloglu, Yesim Serinagaoglu, and Timur Akcam. “An efficient method for snore/nonsnore classification of sleep sounds”. In: *Physiol. Meas.* 28.8 (Aug. 2007), pp. 841–853.
- [A57] Mustafa E. Kamasak and Bulent Bayraktar. “Clustering Dynamic PET Images on the Projection Domain”. In: *IEEE Trans. on Nuclear Science* 54.3 (June 2007), pp. 496–503.
- [A64] Mustafa E. Kamasak, Evan D. Morris, Charles A. Bouman, and Bradley T. Christian. “Direct Reconstruction of Sinograms to Parametric Images of 18F-fallypride Binding in Monkey Brain”. In: *Neuroimage* 32 (2006). Supplement 2, T92.
- [A69] Mustafa E. Kamasak, Charles A. Bouman, Evan D. Morris, and Ken Sauer. “Direct Reconstruction of Kinetic Parameter Images from Dynamic PET Data”. In: *IEEE Trans. on Medical Imaging* 24.5 (May 2005), pp. 636–650.

Conference Proceedings

- [B1] Mustafa Cavusoglu, Harold Christopher Burger, Pablo E. Brockmann, Christian F. Poets, Mustafa E. Kamasak, Osman Eroglu, and Michael S. Urschitz. “Automatic Detection of Snore Episodes in Paediatric Population”. In: *Proceedings of IEEE Signal Processing and Communications Applications (SIU 2014)*. (in Turkish). Trabzon, Apr. 2014.
- [B2] Kubra Cengiz and Mustafa Kamasak. “Comparison of Algebraic Reconstruction Techniques for Tomosynthesis”. In: *Proceedings of International Conference on Systems, Signals and Image Processing - IWSSIP 2014*. Dubrovnik, Croatia, May 2014.
- [B3] Kubra Cengiz and Mustafa E. Kamasak. “Comparison of Algebraic Reconstruction Techniques for Tomosynthesis”. In: *Proceedings of IEEE Signal Processing and Communications Applications (SIU 2014)*. (in Turkish). Trabzon, Apr. 2014.
- [B4] Metin Ertan, Mustafa Kamasak, Isa Yildirim, and Aydin Akan. “Prior Image Selection in Limited Angle Tomographic Imaging”. In: *27th International Symposium on Computer Based Medical Systems (CBMS2014)*. New York, May 2014.
- [B5] Metin Ertan, Isa Yildirim, Mustafa Kamasak, and Aydin Akan. “Image Denoising with Nonlocal Means and Total Variation”. In: *Proceedings of IEEE Signal Processing and Communications Applications (SIU 2014)*. (in Turkish). Trabzon, Apr. 2014.
- [B8] Erkan Akkur, Mustafa E. Kamasak, and Mehmet E. Aksoy. “Comparison of Digital Mammography Systems in Terms of Dose and Image Quality”. In: *Proceedings of National Congress on Medical Technologies (TIPTEKNO 2013)*. (in Turkish). Antalya, Oct. 2013.
- [B10] Metin Ertas, Isa Yildirim, Mustafa E. Kamasak, and Aydin Akan. “Comparison of 2D and 3D Total Variation Minimization Methods in Breast Tomosynthesis Imaging”. In: *Proceedings of 4th IEEE International Conference on eHealth and Bioengineering (EHB2013)*. Iasi, Romania, Nov. 2013.
- [B12] M. E. Kamasak, Y. E. Kiyak, I. Yildirim, and E. Oznergiz. “Automated Nanofiber Diameter Determination”. In: *Proceedings of 7th International Advance Technologies Symposium*. Istanbul, Oct. 2013.

- [B13] Mustafa E. Kamasak. “Bias and Variance Analysis of PET Parameters Estimated with Spatial Regularization”. In: *Proceedings of IEEE Signal Processing and Communications Applications (SIU 2013)*. (in Turkish). North Cyprus, Apr. 2013.
- [B14] P. O. Ozanar, M. E. Kamasak, L. Tavacioglu, G. Zorluoglu, O. K. Kora, G. Kaptanoglu, and B. Cangoz. “The development of neurophysiologic test battery to use in the distinctive diagnosis of Alzheimers disease”. In: *Proceedings of 3. Turkish-German Congress on Psychiatry*. Izmir, Turkiye, Sept. 2013.
- [B15] Pinar O. Ozanar, Mustafa E. Kamasak, Leyla Tavacioglu, Gokhan Zorluoglu, Osman K. Kora, Gulustu Kaptanoglu, Banu Cangoz, and Kaynak Selekler. “Development and Application of a Mobile Cognitive Scanning Test for Dementia Diagnosis”. In: *Proceedings of National Congress on Neurology*. (in Turkish). Antalya, Nov. 2013.
- [B16] Baris Sarikaya and Mustafa E. Kamasak. “A Mobile Application for Prescription Drugs”. In: *Proceedings of National Congress on Medical Technologies (TIPTEKNO 2013)*. (in Turkish). Antalya, Oct. 2013.
- [B18] Saeed Seyyedi, Kubra Cengiz, Mustafa Kamasak, and Isa Yildirim. “An Object-Oriented Simulator for 3D Digital Breast Tomosynthesis System”. In: *Proceedings of 8th International Symposium on Image and Signal Processing and Analysis (ISPA 2013)*. Trieste, Italy, Sept. 2013.
- [B19] Saeed Seyyedi, Isa Yildirim, and Mustafa E. Kamasak. “Evaluating the Effect of Acquisition Parameters in Digital Breast Tomosynthesis System with Iterative Reconstruction Methods on Image Quality”. In: *Proceedings of 4th IEEE International Conference on eHealth and Bioengineering (EHB2013)*. Iasi, Romania, Nov. 2013.
- [B20] Gokhan Zorluoglu, Leyla Tavacioglu, Mustafa E. Kamasak, P. Bolat, U. Tac, and Kaan O. Kora. “A Cognitive Test Battery for Situational Awareness”. In: *Proceedings of 5th National Maritime Congress*. (in Turkish). Istanbul, Nov. 2013.
- [B21] Mehmet E. Aksoy, Mustafa E. Kamasak, Erkan Akkur, Ayhan Ucgul, Muzaffer Basak, and Huseyin Alaca. “Evaluation and Comparison of Image Quality for Indirect Flat Panel Systems with CsI and GOS Scintillators”. In: *Proceedings of International Symposium on Health Informatics and Bioinformatics*. Kapadokya, Nevsehir, Apr. 2012.
- [B22] Mehmet E. Aksoy, Mustafa E. Kamasak, Erkan Akkur, Ayhan Ucgul, Muzaffer Basak, and Huseyin Alaca. “Investigation of Flat Panel Digital Radiography Systems In Terms of Contrast-Detail Performance”. In: *Proceedings of National Congress on Medical Technologies (TIPTEKNO 2012)*. (in Turkish). Antalya, Nov. 2012, pp. 162–166.
- [B24] Ilker Bayram and Mustafa E. Kamasak. “A Directional Total Variation”. In: *European Signal Processing Conference (EUSIPCO-2012)*. Bucharest, Romania, Aug. 2012, pp. 265–269.
- [B26] Ilker Bayram and Mustafa E. Kamasak. “Directional Total Variation Minimization”. In: *Proceedings of IEEE Signal Processing and Communications Applications (SIU 2012)*. (in Turkish). Oludeniz Fethiye Mugla, Apr. 2012.
- [B27] Metin Ertas, Aydin Akan, Kubra Cengiz, Mustafa Kamasak, Saeed Seyyedi, and Isa Yildirim. “3-D Tomosynthesis Image Reconstruction Using Total Variation”. In: *Proceedings of International Conference on BioMedical Computing (BioMedCom 2012)*. Dec. 2012.
- [B28] Metin Ertas, Isa Yildirim, Mustafa Kamasak, and Aydin Akan. “Reconstruction for 3D Tomosynthesis Images with ART and Total Variation”. In: *Proceedings of National Congress on Medical Technologies (TIPTEKNO 2012)*. (in Turkish). Antalya, Nov. 2012, pp. 158–161.
- [B30] Mustafa E. Kamasak. “Computation of Variance in Compartment Model Parameter Estimates from Dynamic PET Data”. In: *Int. Symp. on Biomedical Imaging*. Barcelona, Spain, May 2012, pp. 646–649.
- [B31] Serkan Tuzun, Isa Yildirim, Mustafa Kamasak, and Aydin Akan. “2D Image Reconstruction for Tomosynthesis”. In: *Proceedings of National Congress on Medical Technologies (TIPTEKNO 2012)*. (in Turkish). Antalya, Nov. 2012, pp. 167–170.
- [B32] Mustafa E. Kamasak. “Analysis of Kinetic Parameter Estimates for Dynamic PET”. In: *Proceedings of IEEE Signal Processing and Communications Applications (SIU 2011)*. (in Turkish). Kemer Antalya, Apr. 2011.
- [B35] Gulsen Kaya, Okan Ersoy, and Mustafa E. Kamasak. “Hybrid SVM and SVSA Method for Classification of Remote Sensing Images”. In: *Proceedings of the 2010 IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2010)*. Hawaii, July 2010, pp. 2828–2831.
- [B36] Gulsen Kaya, Okan Ersoy, and Mustafa E. Kamasak. “Spectral and Spatial Classification of Earthquake Images by Support Vector Selection and Adaptation”. In: *International Conference of Soft Computing and Pattern Recognition (SoCPaR 2010)*. Paris, Dec. 2010.
- [B37] Ercan Avsar, Mustafa E. Kamasak, and Zehra Cataltepe. “EEG Classification using one-class SVM”. In: *Proceedings of Biyomut*. (in Turkish). Izmir, Turkey, 2009.

- [B39] G.T. Kaya, O. Ersoy, and M.E. Kamasak. “Support Vector Selection and Adaptation”. In: *International Symposium on Innovations in Intelligent Systems and Applications*. 2009.
- [B40] G.T. Kaya, O. Ersoy, and M.E. Kamasak. “Support Vector Selection and Adaptation and Its Application in Remote Sensing”. In: *Proceedings of International Conference on Recent Advances in Space Technologies (RAST 2009)*. Istanbul, Turkey, 2009.
- [B41] G.T. Kaya, O. Ersoy, and M.E. Kamasak. “Support Vector Selection and Adaptation for Classification of Earthquake Images”. In: *IEEE International Geoscience & Remote Sensing Symposium (IGARSS 2009)*. Cape Town, Africa, 2009.
- [B43] Mustafa Cavusoglu, Mustafa E. Kamasak, Tolga Ciloglu, Yesim Serinagaoglu, and Osman Eroglu. “Spectral Envelope Analysis of Snoring Signals”. In: *Proceedings of The Sixth IASTED International Conference on Biomedical Engineering (BIOMED2008)*. Innsbruck, Austria, Feb. 2008, pp. 473–477.
- [B44] Eyup Guler, Mustafa Cavusoglu, Mustafa Kamasak, Yesim Serinagaoglu, Tolga Ciloglu, and Osman Eroglu. “Dynamic Bed System Design for Position Dependent Sleep Apnea Patients”. In: *Proceedings of Biyomut.* (in Turkish). Ankara, Turkey, 29-31 May 2008.
- [B45] Eyup Guler, Mustafa Cavusoglu, Mustafa Kamasak, Yesim Serinagaoglu, Tolga Ciloglu, and Osman Eroglu. “MDVP Analysis of Snoring Sounds for the Estimation of Obstructive Sleep Apnea”. In: *Proceedings of Biyomut.* (in Turkish). Ankara, Turkey, 29-31 May 2008.
- [B46] Mustafa Cavusoglu, Mustafa E. Kamasak, Tolga Ciloglu, Yesim Serinagaoglu, Osman Eroglu, Timur Akcam, and Hamdullah Aydin. “A Novel Method for Detection of Sleep Apnea from Snoring Sounds”. In: *Proceedings of 8th Sleep Disorders Conference.* (in Turkish). Bodrum, Turkey, 30 October - 3 November 2007, pp. 115–118.
- [B47] Mustafa Cavusoglu, Mustafa E. Kamasak, Dogan D. Demirgunes, Osman Eroglu, Timur Akcam, Hakan Birkent, Sinan Yetkin, and Fuat Ozgen. “Analysis of Sound Intensity for Simple Snorers and Apnea Patients”. In: *Proceedings of 8th Sleep Disorders Conference.* (in Turkish). Bodrum, Turkey, 30 October - 3 November 2007, pp. 121–123.
- [B48] Mustafa Cavusoglu, Mustafa E. Kamasak, Dogan D. Demirgunes, Osman Eroglu, Timur Akcam, Sinan Yetkin, Fuat Ozgen, and Hamdullah Aydin. “An Assessment System for Sleep Disorders Research and Snore Treatment Performance”. In: *Proceedings of 8th Sleep Disorders Conference.* (in Turkish). Bodrum, Turkey, 30 October - 3 November 2007, pp. 84–87.
- [B49] Mustafa Cavusoglu, Mustafa E. Kamasak, Dogan D. Demirgunes, Osman Eroglu, Timur Akcam, Sinan Yetkin, Fuat Ozgen, and Hamdullah Aydin. “Classification of Simple Snorers and Apnea Patients using Radial Graphs”. In: *Proceedings of 8th Sleep Disorders Conference.* (in Turkish). Bodrum, Turkey, 30 October - 3 November 2007, pp. 78–81.
- [B50] Mustafa Cavusoglu, Mustafa E. Kamasak, Dogan D. Demirgunes, Osman Eroglu, Timur Akcam, Sinan Yetkin, Fuat Ozgen, and Hamdullah Aydin. “Distribution of Snoring to Sleeping Stages”. In: *Proceedings of 8th Sleep Disorders Conference.* (in Turkish). Bodrum, Turkey, 30 October - 3 November 2007, pp. 81–84.
- [B51] Mustafa Cavusoglu, Mustafa E. Kamasak, Dogan D. Demirgunes, Osman Eroglu, Timur Akcam, Sinan Yetkin, Fuat Ozgen, and Hamdullah Aydin. “Investigation of the Relation Between Snoring Regularity and Obstructive Sleep Apnea”. In: *Proceedings of 8th Sleep Disorders Conference.* (in Turkish). Bodrum, Turkey, 30 October - 3 November 2007, pp. 123–124.
- [B52] Mustafa Cavusoglu, Mustafa E. Kamasak, Osman Eroglu, Tolga Ciloglu, Timur Akcam, and Yesim Serinagaoglu. “A Software System for Sleep and Snoring Analysis”. In: *Proceedings of International Symposium on Health Informatics and Bioinformatics*. Belek, Antalya, Turkey, Apr. 2007.
- [B54] Mustafa Cavusoglu, Mustafa E. Kamasak, Osman Eroglu, Tolga Ciloglu, Yesim Serinagaoglu, and Hakan Birkent. “Spectral Envelope Analysis for Simple Snorers and Obstructive Sleep Apnea Patients”. In: *Proceedings of IEEE Signal Processing and Communications Applications.* (in Turkish). Eskisehir, 2007.
- [B55] Mustafa Cavusoglu, Mustafa E. Kamasak, Yavuz Nuri Ertas, Osman Eroglu, Yesim Serinagaoglu, and Tolga Ciloglu. “The Intensity and Frequency Analysis of Snoring Sounds According to Sleep Stages”. In: *Proceedings of Biyomut.* (in Turkish). Istanbul, Turkey, 21-22 May 2007.
- [B56] Mustafa E. Kamasak. “Clustering Dynamic PET Images on the Gaussian Distributed Sinogram Domain”. In: *Proceedings of 15th European Signal Processing Conference.* Poznan, Poland, Sept. 2007, pp. 2272–2276.
- [B58] Mustafa E. Kamasak, Charles A. Bouman, Bradley T. Christian, and Evan D. Morris. “Imaging D2-Dopamine Receptor Concentration in Non-Human Primate Brain Using 18F-Fallypride”. In: *Proceedings of 15th European Signal Processing Conference.* Poznan, Poland, Sept. 2007, pp. 2259–2262.
- [B59] Mustafa E. Kamasak, Charles A. Bouman, Bradley T. Christian, and Evan D. Morris. “Imaging D2-Dopamine Receptor using PET”. In: *Proceedings of IEEE Signal Processing and Communications Applications.* (in Turkish). Eskisehir, 2007.

- [B60] Mustafa E. Kamasak and Berk Ustundag. “Terrain Signature Based Navigation”. In: *Proceedings of 5th International Conference on Electrical and Electronics Engineering*. Bursa, Turkey, Dec. 2007, pp. 406–409.
- [B61] Mustafa Cavusoglu, Mustafa E. Kamasak, Yesim Serinagaoglu, Timur Akcam, and Osman Erogul. “Spectrogram Based Analysis of Snoring Sounds For Obstructive Sleep Apnea Patients”. In: *Proceedings of Biyomut*. (in Turkish). Istanbul, Turkey, 25-27 May 2006.
- [B62] Mustafa Cavusoglu, Mustafa E. Kamasak, Yesim Serinagaoglu, Timur Akcam, Sinan Yetkin, Fuat Ozgen, and Osman Erogul. “Classification of snoring sounds based on robust regression algorithm and its clinical application”. In: *Proceedings of 7th Sleep Disorders Conference*. (in Turkish). Bodrum, Turkey, 26-29 October 2006, pp. 10–17.
- [B63] Mustafa E. Kamasak and Bulent Bayraktar. “Unsupervised Clustering of Dynamic PET Images on the Projection Domain”. In: *Proc. of SPIE Conf. on Medical Imaging: Image Processing*. Vol. 6144. San Diego, CA, Feb. 2006, pp. 1539–1548.
- [B65] Mustafa E. Kamasak, Evan D. Morris, Charles A. Bouman, and Bradley T. Christian. “Direct Reconstruction of Sinograms to Parametric Images of 18F-fallypride Binding in Monkey Brain”. In: *Proceedings of International Symposium on Functional NeuroReceptor Mapping of the Living Brain (NRM 2006)*. Copenhagen, Denmark, June 2006.
- [B66] Evan D. Morris, Mustafa E. Kamasak, Bradley T. Christian, Tee Ean Cheng, and Charles A. Bouman. “Visualizing all the Fits: Evaluating the Quality and Precision of Parametric Images Created from Direct Reconstruction of PET Sinogram Data”. In: *Int. Symp. on Biomedical Imaging*. Arlington, Virginia, Apr. 2006, pp. 291–294.
- [B70] Mustafa E. Kamasak, Charles A. Bouman, Evan D. Morris, and Ken Sauer. “Parametric Reconstruction of Kinetic PET Data with Plasma Function Estimation”. In: *Proc. of SPIE Conf. on Electronic Imaging: Computational Imaging*. Vol. 5674. San Jose, CA, Jan. 2005, pp. 293–305.
- [B71] Mustafa E. Kamasak, Charles A. Bouman, Evan D. Morris, and Ken Sauer. “Reconstruction of Kinetic Parameter Images Directly from Dynamic PET Sinograms”. In: *Proc. of SPIE Conf. on Medical Imaging: Image Processing*. Vol. 5747. San Diego, CA, Feb. 2005, pp. 400–412.
- [B73] Mustafa E. Kamasak, Charles A. Bouman, Evan D. Morris, and Ken Sauer. “Direct Reconstruction of Kinetic Parameter Images from Dynamic PET Data”. In: *Proc. of the Asilomar Conference on Signals, Systems, and Computers*. (invited paper). Pacific Grove, CA, Nov. 2003, pp. 1919–1923.
- [B74] L. Slivovsky, J. Allebach, C.A. Bouman, G. Chiu, E. Delp, M. Figuera, M. Kamasak, J. Krogmeier, C. Rosenberg, and L. Torres. “An Undergraduate Research Experience in a Mobile Communications Projects Course”. In: *Conference Proceedings: The American Society for Engineering Education*. Nashville, Tennessee, June 2003.
- [B75] Anand V. Deshpande, Mustafa Kamasak, Kok Leong Thoon, George T. -C. Chiu, Charles A. Bouman, Jan P. Allebach, Steve Fedigan, Dana Schafer, and Charles Cole. “Development of an Inkjet Carriage Motion Controller for Dynamic Print Mode Control”. In: *Conference Proceedings: 2nd IFAC Conference on Mechatronic Systems*. CA, Dec. 2002.
- [B76] Anand V. Deshpande, Mustafa E. Kamasak, Kok Leong Thoon, Charles A. Bouman, George T. C. Chiu, and Jan P. Allebach. “Design and Implementation of a DSP based Inkjet Printer Motion Control System for Dynamic Print Mode Control”. In: *Proceedings of 17th International Conference on Digital Printing Technologies*. Fort Lauderdale, FL, Sept. 2001, pp. 34–42.
- [B77] Mustafa E. Kamasak, Anand V. Deshpande, Kok Leong Thoon, Charles A. Bouman, George T. C. Chiu, and Jan P. Allebach. “Dynamic Print Modes for InkJet Printing”. In: *Proceedings of 17th International Conference on Digital Printing Technologies*. Fort Lauderdale, FL, Sept. 2001, pp. 78–82.
- [B80] Mustafa E. Kamasak and Bulent Sankur. “Face Recognition Under Lossy Compression”. In: *Conference Proceedings: Pattern Recognition and Information Processing*. Minsk, Belarus, May 1999.
- [B81] Mustafa E. Kamasak and Bulent Sankur. “Performance of Face Recognition Algorithms on Compressed Face Databases”. In: *Conference Proceedings: Signal Processing and Applications*. (in Turkish). Ankara, Turkey, June 1999.

Miscellaneous

- [M67] Maleeha Qazi, Mustafa Ersel Kamasak, Murat Dundar, Glenn Fung, Sriram Krishnana, and R. Bharat Rao. “Characterization of cardiac motion with spatial relationship”. 20060247544. 2006.
- [M68] Mustafa E. Kamasak. “Statistical Methods for Reconstruction of Parametric Images from Dynamic PET Data”. PhD thesis. 1285 Electrical Engineering Building Purdue University West Lafayette, IN 47907-1285: Purdue University, School of Electrical and Computer Engineering, May 2005.

- [M72] Maleeha Qazi, Mustafa E. Kamasak, Mehmet M. Dunder, Glenn Fung, Sriram Krishnan, and R. Bharat Rao. *Using Spatial Information for Wall Motion Classification*. Siemens Medical Inc. invention disclosure. (Inv. Disc: 2005E01965 US). 2004.
- [M78] Mustafa E. Kamasak, Charles A. Bouman, George T. C. Chiu, and Jan P. Allebach. *Document Segmentation for Dynamic Print Mode Control (DPMC)*. Purdue University invention disclosure. 2000.
- [M79] Mustafa E. Kamasak. "Effects of Compression on Face Recognition Algorithms". MSc. thesis. Boğaziçi University, 1999.
- [M82] Mustafa E. Kamasak. "Design of Error Correcting Codes for wireless ATM networks". BSc. thesis. Boğaziçi University, 1997.

Professional Activities

- Chair for 23rd International Symposium on Computer and Information Sciences (ISCIS 2008)

Refereed For

- IEEE Transactions on Biomedical Engineering
- IEEE Transaction on Information Technology in Biomedicine
- IEEE Transactions on Medical Imaging
- International Journal of Biomedical Imaging
- Computer Vision and Applications
- Physics in Medicine and Biology
- IEEE Transactions on Image Processing
- Digital Signal Processing
- Inverse Problems
- Medical Physics
- Computerized Medical Imaging and Graphics
- Symposium on Electrical-Electronics and Computer Engineering (ELECO 2010)
- International Symposium on Computer and Information Sciences (ISCIS 2008) 2008
- International Conference on Biomedical Engineering (BioMed 2008) 2008
- IEEE Signal Processing and Communication Applications Conference 2007
- 5th International Conference on Electrical and Electronics Engineering 2007

Technical Talks

- Bogazici University Jan 28, 2011
Analytical Computation of Bias and Variance in Kinetic Parameter Estimation for Dynamic PET
- Sabanci University Oct 21, 2009
Kinetic Parameter Estimation with PET
- Erciyes University May 7, 2009
Medical Device Production Projects
- Yeditepe University Nov 13, 2008
Advances and Challenges in Medical Imaging
- Istanbul Technical University - Center of Computational Sciences Sept 28, 2007
PET and Molecular Imaging
- Gulhane Military Medical Academy Aug 15, 2006
PET Imaging and Applications
- Istanbul Technical University, Computer Engineering Department Sept 26, 2005
Medical Imaging with PET and Recent Developments
- Siemens Medical Inc. Aug 18, 2004
Improvement of Classification Performance using Contextual Information

- Siemens Medical Inc. Jul 6, 2004
Statistical Methods for Reconstruction of Dense Parametric Images of Compartmental Models from Dynamic PET Data
- IUPUI Imaging Science Department Feb 25, 2003
Estimation of Local Cerebral Glucose Utilization from Raw Tomography Data

Graduated Students

Completed thesis can be downloaded from <http://web.itu.edu.tr/kamasak/grads/>

PhD

- 2011 - Gulsen Taskin Kaya (Co-advised with Prof. Okan Ersoy), “Support Vector Selection and Adaptation and Its Application to Earthquake Damage Assessment”.

MSc

- 2014 - İsmail Yeter, “Tıbbi Perfüzyon Pomposu Tasarımı”.
- 2014 - Gökhan Zorluoğlu, “Development of Mobile Cognitive Test Software Application on Situational Awareness”.
- 2014 - Kübra Cengiz, “Comparison of Algebraic Reconstruction Algorithms for Tomosynthesis”.
- 2013 - Barış Sarıkaya, “A Mobile Application for Prescription Drugs”.
- 2013 - Özümlü Ozaner, “Demans Tanısı için Mobil Bilişsel Tarama Testi Geliştirilmesi ve Uygulanması”.
- 2013 - Mehmet Turpçu, “Tıbbi Şırınga Pompaları için Tıkanıklık Basıncı Ölçüm Cihazı”.
- 2011 - Emine Can, “Comparison of Two Different Ray Tracing Algorithms for Tomosynthesis”.
- 2011 - Erkan Akkur (Co-advised with Dr. Emin Aksoy) “Evaluation and Comparison of Image Quality for Indirect Flat Panels with CsI GOS Scintillators”.
- 2011 - Didem Korkmaz (Co-advised with Prof. Eda Turanlı), “Classification of Clinically Different Subtypes of Multiple Sclerosis”.
- 2009 - Ercan Avsar, “Tek-Sınıf Destek Vektör Makineleri Kullanılarak Epileptik EEG İşaretlerinin Sınıflandırılması”.

Lectures

- Purdue University, Mobile Communications Project
MySQL and PHP Programming
Feb 5, 2003
Sept 10, 2003
Jan 28, 2004
Sept 8, 2004
Jan 26, 2005

Courses Given at

- Istanbul Technical University 2007 - ...
- Yeditepe University 2009
- Bahcesehir University 2010

Undergraduate:

- Signals and Systems
- Computer Organization
- Digital Circuits
- Communication Systems
- Microprocessor Lab.
- Advanced Microprocessor Lab.

Graduate:

- Biomedical Imaging Systems
- Fundamentals of Biomedical Engineering
- Computer Graphics