

RESUME - A. Murat Tekalp, Professor



College of Engineering, Koç University
Rumeli Feneri Yolu, 34450 Sarıyer, Istanbul, Turkey
Phone: +90-212-338-1593
FAX: +90-212-338-1548
E-Mail: mtekalp@ku.edu.tr
Web: <http://mvgl.ku.edu.tr>

EDUCATION

- Ph.D., Electrical, Computer and Systems Engineering, 1984
Rensselaer Polytechnic Institute, Troy, New York
Thesis : Identification and Restoration of Noisy and Blurred Images
Advisors: Howard Kaufman and John W. Woods
- M.S., Electrical, Computer and Systems Engineering, 1982
Rensselaer Polytechnic Institute, Troy, New York
Thesis : Applications of Mathematical Optimization in Image Estimation
- B.S., Electrical Engineering and Mathematics (double major program), 1980
Boğaziçi University, Istanbul, Turkey
Project: Design and Implementation Issues on FIR and IIR Digital Filters

PROFESSIONAL EXPERIENCE

- Koç University, Istanbul, Turkey
June '01 - , Professor of Electrical and Electronics Engineering
- Koç University, Istanbul, Turkey
Feb '10 - Feb. '13, Dean of Engineering
- University of Rochester, Rochester, New York 14627,
July '00 - June '05, Distinguished Professor of Electrical and Computer Engineering
November '95 - July '00, Professor of Electrical and Computer Engineering with tenure
May '90 - November '95, Associate Professor of Electrical Engineering with unlimited tenure
July '87 - May '90, Assistant Professor of Electrical Engineering
- Eastman Kodak Company, Rochester, New York 14650,
June '87 - August '87, Senior Research Scientist, Imaging Research Laboratories
December '84 - June '87, Research Scientist, Imaging Research Laboratories
- Rensselaer Polytechnic Institute, Troy, New York 12181,
January '81 - December '84, Research/Teaching Assistant, ECSE Department

Visiting and Other Appointments

- Turkish Science and Technology Foundation, Ankara, Turkey (Part-Time)
Sept '04 - , Head, Electronics and Informatics Group
- Sabancı University, Tuzla, Istanbul, Turkey
Sept '99 - July '00, Visiting Professor of Telecommunications Eng.
- Bilkent University, 06533, Bilkent, Ankara, Turkey,
September '92 - June '93, Visiting Associate Professor of Electrical Engineering
- Rensselaer Polytechnic Institute, Troy, New York 12181,
January '87 - June '87, Visiting Asst. Prof. of Electrical, Computer and Systems Engineering

HONORS, AWARDS and MEMBERSHIPS

Member, Academia Europea, 2010.

Member, Turkish Academy of Sciences (TUBA), 2007.

Science Award (TUBITAK Bilim Odulu), Sci. and Tech. Research Council of Turkey, 2004.

Fellow, IEEE (S '80, M '85, Sr. '91, F '03); Member, Sigma Xi (M '83)

Fulbright Senior Scholar Award, 1999-2000 Academic year.

Distinguished Lecturer, IEEE Signal Processing Society, 1999-2000

Listed in Marquis Who'sWho in the World, 17th Edition.

National Science Foundation Research Initiation Award ('88)

Fellowship from Scientific and Technical Research Council of Turkey ('78)

PROFESSIONAL ACTIVITIES and SERVICE

Editor-in-Chief, Signal Processing: Image Communication (1999 - 2010)

Editorial Board, IEEE Signal Processing Magazine (2006 - 2009)

Editorial Board, Visual Communications and Image Representation (1996 - 2000)

Editorial Board, Graphical Models and Image Processing (1995 - 98)

Associate Editor, Multidimensional Systems and Signal Proc. (1994 - 99)

Associate Editor, IEEE Transactions on Image Processing (1994 - 96)

Associate Editor, IEEE Transactions on Signal Processing (1990 - 92)

Guest Editor for the special issue of Proceedings of IEEE on 3D Media and Displays, April 2011.

Guest Editor for IEEE Trans. on Image Processing on Image and Video Processing for Digital Libraries, January 2000.

Guest Editor for the special issue of EURASIP Signal Processing: Image Communication on Real-Time Video over the Internet, September 1999.

Guest Editor for the special issue of Proceedings of IEEE on Multimedia Signal Processing, May/June 1998

Technical Program Co-Chair, EUSIPCO-2005, Antalya, Turkey

General Chair, IEEE ICIP-2002, Rochester, New York

Technical Program Co-Chair, IEEE ICASSP-2000, Istanbul, Turkey

Special Sessions Chair, IEEE Int. Conf. on Image Proc., Washington, DC, Nov. 1995

Conference Co-Chair, Image and Video Processing Conference, SPIE/IS&T Electronic Imaging Symp., San Jose, CA, Feb. 1993

Past Chair, IEEE Signal Processing Society Technical Committee on Image and Multi-Dimensional Signal Processing (1996 - 98), Vice-Chair (1994 - 96), Member (1990 - 2000)

Member, IEEE Signal Processing Society Technical Committee on Multimedia Signal Processing (1996 - 2001)

Chair, IEEE Rochester Section, (1994 - 95)

Organizer and the first Chairman of the Rochester Chapter of the IEEE Signal Processing Society, Aug. 1988

EXTERNAL FUNDING

Koc University, Istanbul

- European Union, FP7, DIOMEDES NoE, 2/1/10 - 7/31/13, Euro 280,000 (total).
- European Union, FP7, SARACEN NoE, 1/1/10 - 12/31/13, Euro 242,000 (total).
- European Union, FP6, 3DTV NoE, 9/1/04 - 8/31/08, Euro 282,000 (total).
- European Union, FP6, SIMILAR NoE, 12/1/03 - 11/30/07, Euro 268,000 (total).

University of Rochester

- NSF ITR Program, SIRG: "Being There": User-centric wireless image-based sensor networks," (with Heinzelman, Bocko, and Sharma) 9/1/04-8/31/07, \$1,200,000. (total)
- NSF, IIS Program, "An Intelligent Visual Database System: Hierarchical Content Description and Matching," 8/1/99 - 7/31/03, \$243,000. (total)
- NYSTAR, Center for Advanced Technology for Electronic Imaging Systems, "Digital Video Processing," 7/1/93 - 6/30/03, \$40,000./year
- Eastman Kodak Company, "Human Motion Analysis," 9/1/90 - 8/31/03, \$ 475,000. (total)
- Xerox Corporation, "Digital Image and Video Watermarking," 7/1/00 - 6/30/03, \$ 25,000. /year
- Keck Foundation, Center for Future Health, "Human Motion Monitoring," 1/1/00 - 6/30/02, \$43,000.
- Siemens Corporate Research, Inc, "3-D Model-Based Video Processing," 10/1/97 - 3/31/02, \$ 75,000. (total)
- NSF Combined Research and Curriculum Development, "A Unified Image Science and Electronic Imaging Systems Curriculum Development Initiative," (with M. Kriss, K. Parker, N. George, and K. Kutulakos), 10/1/98 - 9/30/01, \$499,855. (total)
- NSF International Collaboration, "Multimedia Document Indexing," (with F. Yarman-Vural, Middle East. Tech. University-Turkey), 6/1/98 - 11/30/01, \$16,700.
- NSF SIUC Research Center for Electronic Imaging Systems, "Image Sequence Processing," 7/1/92 - 6/30/00, \$ 55,000./year
- Xerox Corporation, "Adaptive Color Rendering and Printer Calibration," 9/1/96 - 12/31/99, \$ 75,000. (total)
- NSF International Collaboration, "Model Based Image Compression at Very Low Bit Rates," (with L. Onural and A. E. Cetin, Bilkent University-Turkey), 6/1/94 - 5/31/98, \$15,000.
- National Science Foundation, "Modeling and Suppression of Motion Artifacts in MRI," 6/1/92 - 5/31/97, \$ 89,000./year (with W. E. Smith)
- National Science Foundation, CISE Research Instrumentation Grants, "Research Instrumentation for Image and Video Processing," 3/1/93 - 2/28/96, \$ 40,814 (total)
- NYS Center for Advanced Optical Technology, "Novel Methods for Image Sequence Enhancement and Restoration," 6/1/91 - 5/31/93, \$ 75,000. (total)
- National Institute of Justice, "Image Restoration for Criminal Identification," 9/1/88 - 12/31/90, \$ 285,000., (co-investigator: H. Kaufman, Rensselaer)
- National Science Foundation, Research Experience for Undergraduates, "Adaptive Image Restoration and Recovery," 9/1/89 - 12/31/90, \$ 8,000.
- National Science Foundation, CISE Research Initiation Award, "Adaptive Image Restoration and Recovery," 7/1/88 - 12/31/90, \$ 70,000.

TEACHING

Koç University, Istanbul, Turkey

Elec 201 Signals and Systems, required undergraduate course, F01, F03, F04, F05
Elec 303 Digital Signal Processing, elective undergraduate course, F01, S04, S05
ECOE 506 Digital Image and Video Processing, graduate level, S04, S05

University of Rochester

ECE 241 Signals, undergraduate level, F88-F91, F95-F98
ECE 242 Communications, undergraduate level, S94 -S96, S98
ECE 246/446 Digital Signal Processing, F00
ECE 447 Digital Image Processing, graduate level, F86, F87, S89-S 91, F02
ECE 448 Pattern Recognition, graduate level, S88, S92
ECE 449 Digital Video Processing, graduate level, F93-F95, S97-S99, S03

Bilkent University, Ankara, Turkey

Math 220 Linear Algebra, required undergraduate course, F92
EE 621 Video Signal Processing, (new course), graduate level, F92
EE 302 Signals and Systems II, required undergraduate course, S93
EE 524 Digital Image Processing, graduate level, S93

Rensselaer Polytechnic Institute

35.6967 Image Restoration, Reconstruction and Coding (new course), graduate level, S87

Short Courses

Multimedia Standards, 3 days, UCLA Extension, Aug. 2000, March 2001, May 2002.
MPEG-4 and MPEG-7 Standards, 2 days, UCB Extension, May 01; Jan. 02.
Digital Video Processing, George Washington University, Continuing Education Center,
Washington, DC, Feb. 8-10, 1993; Oct. 15-17, 1993; July 27-29, 1994; May 13-17, 1996;
August 25-29, 1997; May 4-8, 1998; Denver, CO, May 20-24, 1996.
Digital Video Processing, 4 hrs, IEEE ICASSP, San Francisco, CA, Mar. 1992

UNIVERSITY SERVICE

Koç University, Istanbul, Turkey

Member, Academic Council
Coordinator, Graduate Studies in Electrical and Computer Engineering

University of Rochester

Chair, Graduate Committee, Electrical and Computer Engineering Department (9/95 - 9/99),
(9/02 -), Member (9/90 - 8/95)
Member, Search Committee for Dean of SEAS (10/97)
Member, University Honorary Degrees Committee (9/90 - 8/92)

Date: February 18, 2013.

PUBLICATIONS

Refereed Journal Publications

1. C. G. Gurler and A. M. Tekalp, "Peer-to-peer system design for adaptive 3D video streaming," to appear in *IEEE Communications Magazine*, 2013.
2. H. Egilmez, S. Civanlar, and A. M. Tekalp, "An optimization framework for QoS-enabled adaptive video streaming over OpenFlow networks," to appear in *IEEE Trans. on Multimedia*, 2013.
3. B. Gorkemli and A. M. Tekalp, "Adaptation strategies for MGS scalable video streaming," *Signal Processing: Image Communication*, vol. 27, no. 6, pp. 595-611, July 2012.
4. F. Ofli, E. Erzin, Y. Yemez, and A. M. Tekalp, "Learn2Dance: Learning Statistical Music-to-Dance Mappings for Choreography Synthesis," *IEEE Trans. on Multimedia*, vol. 14, no. 3, pp. 747-759, June 2012.
5. S. S. Savas, C. G. Gurler, A. M. Tekalp, E. Ekmekcioglu, S. Worrall, and A. Kondo, "Adaptive streaming of multi-view video over P2P networks," *Signal Processing: Image Communication*, vol. 27, no. 5, pp. 522-531, May 2012.
6. M. F. Sayit, T. Tunali and A. M. Tekalp, "Resilient peer-to-peer streaming of scalable video over hierarchical multicast trees with backup parent pools," *Signal Processing: Image Communication*, vol. 27, no. 2, pp. 113-125, Feb. 2012.
7. G. Saygili, C. G. Gurler, and A. M. Tekalp, "Evaluation of asymmetric stereo video coding and rate scaling for adaptive 3D video streaming," *IEEE Trans. on Broadcasting*, vol. 57, no. 2, pp. 593-601, June 2011.
8. C. G. Gurler, B. Gorkemli, G. Saygili, and A. M. Tekalp, "Flexible transport of 3D video over networks," *Proc. of the IEEE*, vol. 99, no. 4, pp. 694-707, April 2011.
9. C. G. Gurler, A. Aksay, G. Bozdagi-Akar, and A. M. Tekalp, "Architectures for multi-threaded MVC-compliant multi-view video decoding and benchmark tests," *Signal Processing: Image Communication*, vol. 25, no. 5 pp. 325-334, June 2010.
10. T. B. Abanoz and A. M. Tekalp, "SVC-based scalable multiple description video coding and optimization of encoding configuration," *Signal Processing: Image Communication*, vol. 24, no. 9, pp. 691-701, Oct. 2009.
11. F. Ofli, Y. Demir, Y. Yemez, E. Erzin, A. M. Tekalp, K. Balci, I. Kiziloglu, L. Akarun, C. Canton-Ferrer, J. Tilmanne, E. Bozkurt, A. T. Erdem, "An audio-driven dancing avatar," *J. on Multimodal User Interfaces*, 2008.
12. E. Sargin, Y. Yemez, E. Erzin, and A. M. Tekalp, "Analysis of head gesture and prosody patterns for prosody-driven head-gesture animation," *IEEE Trans. Patt. Anal. and Mach. Intel.*, vol. 30, no. 8, pp. 1330-1345, Aug. 2008.
13. A. M. Tekalp, E. Kurutepe, and M. R. Civanlar, "3DTV over IP: End-to-end streaming of multi-view video," *IEEE Signal Processing Magazine*, vol. 24, no. 6, pp. 77-87, Nov. 2007.
14. E. Kurutepe, R. Civanlar, and A. M. Tekalp, "Client-driven selective streaming of multi-view video for interactive 3DTV," *IEEE Trans. on Circ. and Syst. for Video Technology*, vol. 17, no. 11, pp. 1558-1565, Nov. 2007.

15. G. Bozdagi-Akar, A. M. Tekalp, C. Fehn, and R. Civanlar, "3DTV - A survey of transport methods," *IEEE Trans. on Circ. and Syst. for Video Technology*, vol. 17, no. 11, pp. 1622-1630, Nov. 2007.
16. E. Sargin, Y. Yemez, E. Erzin, and A. M. Tekalp, "Audio-visual synchronization and fusion using canonical correlation analysis," *IEEE Trans. Multimedia*, vol. 9, no. 7, pp. 1396-1403, Nov. 2007.
17. E. Akyol, A. M. Tekalp, and R. Civanlar, "A flexible multiple description coding framework for adaptive peer-to-peer video streaming," *IEEE Jour. Selected Topics in Signal Proc.*, vol. 1, no. 2, pp. 231-245, August 2007.
18. T. Ozcelebi, A. M. Tekalp, and M. R. Civanlar, "Delay-distortion optimization for content-adaptive video streaming," *IEEE Trans. Multimedia*, vol. 9, no. 4, pp. 826-836, June 2007.
19. O. Harmanci and A. M. Tekalp, "Rate-distortion optimal video transport over IP allowing packets with bit errors," *IEEE Trans. Image Processing*, vol. 16, no. 5, pp. 1315-1326, May 2007.
20. T. Ozcelebi, O. Sunay, A. M. Tekalp, and M. R. Civanlar, "Cross-layer optimized rate adaptation and scheduling for multiple-user wireless video streaming," *IEEE Jour. Select. Areas in Commun.*, vol. 25, no. 4, pp. 760-769, May 2007.
21. E. Akyol, A. M. Tekalp, and M. R. Civanlar, "Content-aware scalability type selection for rate adaptation of scalable video," *EURASIP Jour. on Advances in Signal Processing*, vol. 2007, Article ID 10236, 11 pages, April 2007.
22. O. Harmanci and A. M. Tekalp, "A stochastic framework for rate-distortion optimized video coding over error-prone networks," *IEEE Trans. Image Processing*, vol. 16, no. 3, pp. 684-697, March 2007.
23. A. Aksay, S. Pehlivan, E. Kurutepe, C. Bilen, T. Ozcelebi, G. Bozdagi Akar, M. R. Civanlar, and A. M. Tekalp, "End-to-end stereoscopic video streaming system with content-adaptive rate and format control," *Signal Processing: Image Communication*, vol. 22, no. 2, pp. 157-168, Feb 2007.
24. H. E. Cetingul, E. Erzin, Y. Yemez, and A. M. Tekalp, "Multimodal speaker/speech recognition using lip motion, lip texture and audio," *Signal Processing*, vol. 86, no. 12, pp. 3549-3558, December 2006.
25. G. Caner, A. M. Tekalp, G. Sharma, and W. Heinzelman, "Local image registration by adaptive filtering," *IEEE Trans. on Image Proces.*, vol. 15, no. 10, pp. 3053-3065, Oct. 2006.
26. H. E. Cetingul, Y. Yemez, E. Erzin, and A. M. Tekalp, "Discriminative analysis of lip motion features for speaker identification and speech reading," *IEEE Trans. on Image Processing*, vol. 15, no. 10, pp. 2879-2891, Oct. 2006.
27. E. Kurutepe, M. R. Civanlar, and A. M. Tekalp, "Interactive transport of multi-view videos for 3DTV applications," *Jour. of Zhejiang University, Science A*, vol. 7, no. 5, pp. 830-836, 2006.
28. E. Erzin, Y. Yemez, A. M. Tekalp, A. Ercil, H. Erdogan, and H. Abut, "Multimodal person recognition for human-vehicle interaction," *IEEE Multimedia Mag.*, vol. 13, no. 2, pp. 18-31, April-June 2006.
29. M. U. Celik, G. Sharma, and A. M. Tekalp, "Lossless watermarking for image authentication: A new framework and an implementation," *IEEE Trans. Image Processing*, vol. 15, no. 4, pp. 1042- 1049, April 2006.
30. A. Kokaram, N. Rea, R. Dahyot, A. M. Tekalp, P. Bouthemy, P. Gros, and I. Sezan, "Browsing sports video," *IEEE Signal Processing Magazine*, vol. 23, no. 2, pp. 47-58, March 2006.
31. E. Erzin, Y. Yemez, and A. M. Tekalp, "Multimodal speaker identification using an adaptive classifier cascade based on modality reliability," *IEEE Trans. on Multimedia*, vol. 7, no. 5, pp. 840-852, October 2005.

32. E. Saber, Y. Xu, and A. M. Tekalp, "Partial shape recognition by sub-matrix matching for partial matching guided image labeling," *Pattern Recognition*, vol. 38, no. 10, pp 1560-1573, Oct. 2005.
33. M. Celik, G. Sharma, A. M. Tekalp, and E. Saber, "Lossless generalized LSB data embedding," *IEEE Trans. on Image Processing*, vol. 14, no. 2, pp. 253-266, February 2005.
34. A. Ekin, A. M. Tekalp and R. Mehrotra, "Integrated semantic-syntactic video event modeling for search and browsing," *IEEE Trans. on Multimedia*, vol. 6, no. 6, pp. 839-851, Dec. 2004.
35. M. Celik, G. Sharma, and A. M. Tekalp, "Collusion-resilient fingerprinting by random pre-warping," *IEEE Signal Processing Letters*, vol. 11, no. 10, pp. 831-835, Oct. 2004.
36. Y. Xu, E. Saber, and A. M. Tekalp, "Dynamic learning from multiple examples for semantic object segmentation and search," *Computer Vision and Image Understanding*, vol. 95, no. 3, pp. 334-353, Sept. 2004.
37. C. Erdem, B. Sankur, and A. M. Tekalp, "Performance measures for video object segmentation and tracking," *IEEE Trans. on Image Processing*, vol. 13, no. 7, pp. 937 - 951, July 2004.
38. S. Dockstader, M. J. Berg, and A. M. Tekalp, "Stochastic kinematic modeling and feature extraction for gait analysis," *IEEE Trans. Image Processing*, vol. 12, no. 8, pp. 962-976, August 2003.
39. A. Ekin, A. M. Tekalp, and R. Mehrotra, "Automatic soccer video analysis and summarization," *IEEE Trans. on Image Processing*, vol. 12, no. 7, pp. 796-807, July 2003.
40. M. Celik, G. Sharma, and A. M. Tekalp, "Gray-level embedded lossless image compression," *Signal Processing: Image Communication*, vol. 18, no. 6, pp. 443-454, July 2003.
41. A. M. Ferman and A. M. Tekalp, "Two-stage hierarchical video summary extraction to match low-level user browsing preferences," *IEEE Trans. on Multimedia*, vol. 5, no. 2, pp. 244-256, June 2003.
42. Y. Xu, P. Duygulu, E. Saber, A. M. Tekalp, and F. Yarman-Vural, "Object-based image labeling through learning-by-example and multi-level segmentation," *Pattern Recognition*, vol. 36, no. 6, pp 1407 - 1423, June 2003.
43. Y. Xu, E. Saber, and A. M. Tekalp, "Object segmentation and labeling by learning from examples," *IEEE Trans. Image Processing*, vol. 12, no. 6, pp. 627-638, June 2003.
44. P. E. Eren and A. M. Tekalp, "Bi-Directional 2-D mesh representation for video object rendering, editing and superresolution in the presence of occlusion," *Signal Processing: Image Communication*, vol. 18, no. 5, pp. 321-336, May 2003.
45. C. E. Erdem, A. M. Tekalp, and B. Sankur, "Video object tracking with feedback of performance measures," *IEEE Trans. Circuits and Syst. for Video Tech.*, vol. 13, no. 4, pp. 310-324, April 2003.
46. B. Gunsel, U. Uludag, and A. M. Tekalp, "Robust watermarking of fingerprint images," *Pattern Recognition*, vol. 35, no. 12, pp. 2739-2747, Dec. 2002.
47. M. U. Celik, G. Sharma, E. Saber, and A. M. Tekalp, "Hierarchical watermarking for secure image authentication with localization," *IEEE Trans. Image Proc.*, vol. 11, no. 6, pp. 585-595, June 2002.
48. A. M. Ferman, A. M. Tekalp, and R. Mehrotra, "Robust color histogram descriptors for video segment retrieval and identification," *IEEE Trans. Image Processing*, vol. 11, no. 5, pp. 497-508, May 2002.

49. Z. Sun, A. M. Tekalp, N. Navab, and R. Visvanathan, "Interactive optimization of 3-D shape and 2-D correspondence using multiple geometric constraints via POCS," *IEEE Trans. Patt. Anal. Mach. Intel.*, vol. 24, no. 4, pp. 562-568, April 2002.
50. Y. Fu, A. Ekin, A. M. Tekalp, and R. Mehrotra, "Temporal segmentation of video objects for hierarchical object-based motion description," *IEEE Trans. Image Processing*, vol. 11, no. 2, pp. 135-145, Feb. 2002.
51. S. Dockstader and A. M. Tekalp, "Multiple camera tracking of interacting and occluded human motion," *Proc. of IEEE*, vol. 89, no. 10, pp. 1441-1455, Oct. 2001.
52. S. Dockstader and A. M. Tekalp, "On the tracking of articulated and occluded video object motion," *Real Time Imaging*, vol. 7, no. 5, pp. 415-432, Oct. 2001.
53. A. M. Ferman and A. M. Tekalp, "Fuzzy framework for unsupervised video content characterization and shot classification," *J. of Electronic Imaging*, vol. 10, no. 4, pp. 917-929, Oct. 2001.
54. I. Celasun, A. M. Tekalp, M. H. Gokcetekin, and D. M. Harmanci, "2-D mesh-based video object segmentation and tracking with occlusion resolution," *Signal Processing: Image Communication*, vol. 16, no. 10, pp. 949-962, Aug. 2001.
55. Z. Sun, R. Visvanathan, and A. M. Tekalp, "Error characterization of the factorization method for shape and motion recovery," *Comp. Vision and Image Understand.*, vol. 82, pp. 110-137, May 2001.
56. Y. Fu, A. T. Erdem, and A. M. Tekalp, "Tracking visible boundary of objects using occlusion adaptive motion snake," *IEEE Trans. Image Processing*, vol. 9, no. 12, pp. 2051-2060, Dec. 2000.
57. I. Celasun and A. M. Tekalp "Optimal 2D hierarchical content-based mesh design and update for object-based video," *IEEE Trans. Circ. and Syst. for Video Tech.*, vol. 10, no. 7, pp. 1135-1153, Oct. 2000.
58. C. Toklu, A. T. Erdem, and A. M. Tekalp, "2-D mesh-based mosaic representation for manipulation of video objects with occlusion," *IEEE Trans. Image Proc.*, vol. 9, no. 9, pp. 1617-1630, Sept. 2000.
59. C. Toklu, A. M. Tekalp, and A. T. Erdem, "Semi-automatic alpha plane generation by occlusion-adaptive mesh tracking," *IEEE Trans. Circ. and Syst. for Video Tech.*, vol. 10, no. 4, pp. 624-629, June 2000.
60. A. M. Tekalp and J. Ostermann, "Face and 2-D mesh animation in MPEG-4" *Signal Processing: Image Communication*, vol. 15, pp. 387-421, Jan. 2000.
61. M. Xia, E. Saber, G. Sharma, and A. M. Tekalp, "End-to-end color printer calibration by total least squares regression," *IEEE Trans. Image Processing*, vol. 8, no. 5, pp. 700-716, May 1999.
62. P. J.L. van Beek, A. M. Tekalp, N. Zhuang, I. Celasun, and M. Xia, "Hierarchical 2D mesh representation, tracking, and compression for object-based video," *IEEE Trans. Circ. and Syst. for Video Tech.*, vol. 9, no. 2, pp. 353-369, March 1999.
63. A. M. Ferman and A. M. Tekalp, "Efficient filtering and clustering methods for temporal video segmentation and visual summarization," *J. Vis. Comm. and Image Rep.*, vol. 9, no. 4 (special issue), pp. 336-351, Dec. 1998.
64. Z. Sun and A. M. Tekalp, "Trifocal motion modeling for object-based video compression and manipulation," *IEEE Trans. Circ. and Syst. for Video Tech.*, vol. 8, no. 5, pp. 667-685, Sept. 1998.
65. E. Saber and A. M. Tekalp, "Frontal-view face detection and facial feature extraction using color, shape, and symmetry-based cost functions," *Pattern Recognition Letters*, vol. 19, pp. 669-680, 1998.

66. Y. Altunbasak and A. M. Tekalp, "A hybrid video codec with block-based and mesh-based motion compensation modes," *Int. J. Imaging Syst. and Tech.*, vol. 9 (4), pp 248-256, Aug. 1998.
67. B. Günsel, M. Ferman, and A. M. Tekalp, "Temporal video segmentation using unsupervised clustering and semantic object tracking," special issue of *J. Electronic Imaging*, vol. 7, no. 3, pp. 592-604, July 1998.
68. E. Saber and A. M. Tekalp, "Integration of color, shape, and texture for automatic image annotation and retrieval," *J. Electronic Imaging*, vol. 7, no. 3, pp. 684-700, July 1998.
69. B. Günsel and A. M. Tekalp, "Shape similarity matching for query-by-example," *Patt. Recog.*, vol. 31, no. 7, pp. 931-944, July 1998.
70. A. M. Tekalp, P. J.L. van Beek, C. Toklu, and B. Günsel, "2D mesh-based visual object representation for interactive synthetic/natural video," special issue of *Proc. IEEE*, vol. 86, no. 6, pp. 1029-1051, June 1998.
71. B. Günsel, A. M. Tekalp, and P. J.L. van Beek, "Content-based access to video objects: Temporal segmentation, feature extraction and visual summarization," *Signal Processing*, vol. 66, no. 2 (special issue), pp. 261-280, April 1998.
72. A. J. Patti, A. M. Tekalp, and M. I. Sezan, "A new motion-compensated reduced order model Kalman filter for restoration of progressive and interlaced video," *IEEE Trans. Image Processing*, vol. 7, no. 4, pp. 543-554, April 1998.
73. R. Chellappa, B. Girod, D. Munson Jr., A. M. Tekalp, and M. Vetterli, "The past, present, and future of image and multidimensional signal processing," *IEEE Signal Processing Magazine*, vol. 15, no. 2, pp. 21-58, Mar. 1998.
74. Y. Altunbasak, E. Eren, and A. M. Tekalp, "Region-based parametric motion segmentation using color information," *Graphical Models and Image Processing*, vol. 60, no. 1, pp. 13-23, Jan. 1998.
75. G. D. Borshukov, G. Bozdagi, Y. Altunbasak, and A. M. Tekalp, "Improved motion segmentation by multi-stage affine parameter clustering," *IEEE Trans. Image Proc.*, vol. 6, no. 11, pp. 1591-1594, Nov. 1997.
76. E. Saber, A. M. Tekalp, and G. Bozdagi "Fusion of color and edge information for improved segmentation and edge linking," *Image and Vision Computing*, vol. 15, no. 10, pp. 769-780, Oct. 1997.
77. E. Eren, M. I. Sezan, and A. M. Tekalp, "Robust, object-based high-resolution image reconstruction from low-resolution video," *IEEE Trans. Image Proc.*, vol. 6, no. 10, pp. 1446-1451, Oct. 1997.
78. Y. Altunbasak and A. M. Tekalp, "Closed-form connectivity-preserving solutions for motion compensation using 2-D meshes," *IEEE Trans. Image Processing*, vol. 6, no. 9, pp. 1255-1269, Sep. 1997.
79. Y. Altunbasak and A. M. Tekalp, "Occlusion-adaptive content-based 2-D mesh design and tracking for object-based coding," *IEEE Trans. Image Processing*, vol. 6, no. 9, pp. 1270-1280, Sep. 1997.
80. M. M. Chang, A. M. Tekalp, and M. I. Sezan, "Simultaneous motion estimation and segmentation," *IEEE Trans. Image Processing*, vol. 6, no. 9, pp. 1326-1333, Sep. 1997.
81. A. J. Patti, M. I. Sezan, and A. M. Tekalp, "Super-resolution video reconstruction with arbitrary sampling lattices and non-zero aperture time," *IEEE Trans. Image Proc.*, vol. 6, no. 8, pp. 1064-1076, Aug. 1997.
82. A. M. Tekalp, Y. Altunbasak, and G. Bozdagi, "Two- vs. three-dimensional object-based coding," *IEEE Trans. Circ. Syst. Video Tech.*, vol. 7, no. 2, pp. 391-397, Apr. 1997.

83. A. J. Patti, M. I. Sezan, and A. M. Tekalp, "Robust methods for high-quality stills from video in the presence of dominant motion," *IEEE Trans. Circ. Syst. Video Tech.*, vol. 7, no. 2, pp. 328-342, Apr. 1997.
84. E. Saber and A. M. Tekalp, "Region-based affine shape matching for automatic image annotation and query-by-example," *J. Visual Comm. and Image Representation*, vol. 8, no. 1, pp. 3-20, Mar. 1997.
85. C. Toklu, A. T. Erdem, M. I. Sezan, and A. M. Tekalp, "Tracking motion and intensity-variations using hierarchical 2-D mesh modeling for synthetic object transfiguration," *Graphical Models and Image Processing*, vol. 58, no. 6, pp. 553-573, Nov. 1996.
86. M. M. Chang, M. I. Sezan, A. M. Tekalp, and M. J. Berg, "Bayesian segmentation of multislice brain MRI using 3-D Gibbsian priors," *Optical Eng.*, vol. 35, no. 11, pp. 3206-3221, Nov. 1996.
87. E. Saber, A. M. Tekalp, R. Eschbach, and K. Knox, "Automatic image annotation using adaptive color classification," *Graph. Models and Image Proc.*, vol. 58, no. 2, pp. 115-126, Mar. 1996.
88. J. K. Riek, A. M. Tekalp, W. E. Smith, and E. Kwok, "Out-of-plane motion compensation in multi-slice spin-echo MRI," *IEEE Trans. Med. Imag.*, vol. 14, no. 3, pp. 464-470, Sep. 1995.
89. M. M. Chang, M. I. Sezan, and A. M. Tekalp, "Adaptive Bayesian segmentation of color images," *J. Electronic Imaging*, vol. 3(4), pp. 404-414, Oct. 1994.
90. J. K. Riek and A. M. Tekalp, "Modeling the effects of patient motion in MRI data acquisition," *Magnetic Res. in Medicine*, vol. MRM-32, pp. 546-547, Oct. 1994.
91. E. Gündüzhan, A. E. Çetin, and A. M. Tekalp, "DCT coding of nonuniformly sampled images," *IEEE Signal Proc. Letters*, vol. 1, no. 9, pp. 131-133, Sep. 1994.
92. G. Bozdağı, A. M. Tekalp, and L. Onural, "An improvement to MBASIC algorithm for 3-D motion and depth estimation," *IEEE Trans. Image Proc.*, vol. 3, pp. 711-716, Sep. 1994.
93. M. K. Özkan, A. M. Tekalp, and M. I. Sezan, "POCS-based restoration of space-varying blurred images," *IEEE Trans. Image Processing*, vol. 3, pp. 450-454, July 1994.
94. G. Bozdağı, A. M. Tekalp, and L. Onural, "3-D motion estimation and wireframe model adaptation including photometric effects for model-based coding of facial image sequences," *IEEE Trans. Circ. and Syst.: Video Tech.*, vol. 4, no. 3, pp. 246-256, June 1994.
95. A. J. Patti, M. I. Sezan, and A. M. Tekalp, "Standards conversion in the presence of accelerated motion," *Signal Proc.: Image Communication*, vol. 6, pp. 213-227, June 1994.
96. J. K. Riek, S. Totterman, A. M. Tekalp, W. E. Smith, and E. Kwok, "Flow compensation in MRI using a phase-corrected real reconstruction," *Magnetic Res. in Medicine*, vol. MRM-30, pp. 724-731, Dec. 1993.
97. M. K. Özkan, M. I. Sezan, and A. M. Tekalp, "Adaptive motion-compensated filtering of noisy image sequences," *IEEE Trans. Circ. and Syst.: Video Technology*, vol. 3, no. 4, pp. 277-290, Aug. 1993.
98. J. Le Roux, P. Sole, A. M. Tekalp, and A. T. Erdem, "Tekalp-Erdem estimator gives the least-squares estimate of the Fourier-phase and log-Fourier-modulus," *IEEE Trans. Sign. Proc.*, vol. SP-41, pp. 1705-1707, Apr. 1993.
99. A. M. Tekalp and G. Pavlović, "Digital restoration of images scanned from photographic paper," *J. Electronic Imaging*, vol. 2, pp. 19-27, Jan. 1993.

100. G. Pavlović and A. M. Tekalp, "Maximum likelihood parametric blur identification based on a continuous spatial domain model," *IEEE Trans. Image Proc.*, vol. 1, pp. 496-504, Oct. 1992.
101. M. K. Özkan, A. T. Erdem, M. I. Sezan, and A. M. Tekalp, "Efficient multiframe Wiener restoration of blurred and noisy image sequences," *IEEE Trans. Image Proc.*, vol. IP-1, pp. 453-476, Oct. 1992.
102. A. T. Erdem and A. M. Tekalp, "Linear bispectrum of signals and identification of nonminimum phase FIR systems driven by colored input," *IEEE Trans. Sign. Proc.*, vol. ASSP-40, pp. 1469-1479, Jun. 1992.
103. A. T. Erdem, A. M. Tekalp, and M. M. Chang, "Modeling arbitrary polynomial bispectra in one and two dimensions," *IEEE Trans. Sign. Proc.*, vol. ASSP-40, pp. 823-833, Apr. 1992.
104. M. M. Chang, A. M. Tekalp, and A. T. Erdem, "Blur identification using the bispectrum," *IEEE Trans. Sign. Proc.*, vol. ASSP-39, pp. 2323-2325, Oct. 1991.
105. A. M. Tekalp and G. Pavlovic, "Image restoration with multiplicative noise: Incorporating the sensor nonlinearity," *IEEE Trans. Sign. Proc.*, vol. 39, pp. 2132-2136, Sep. 1991.
106. A. M. Tekalp and H. J. Trussell, "Comparative study of some statistical and set-theoretic methods for image restoration," *CVGIP: Graphical Models and Image Processing*, vol. 53, No. 2, pp. 108-120, Mar. 1991.
107. H. Kaufman and A. M. Tekalp, "Survey of estimation techniques in image restoration," *IEEE Control Systems Magazine*, vol. 11, pp. 16-24, Jan. 1991.
108. T. Mitsa, K. J. Parker, W. Smith, A. M. Tekalp, and J. Szumowski, "Correction of periodic motion artifacts along the slice selection axis in MRI," *IEEE Trans. Medical Imaging*, vol. 9, pp. 310-317, Sep. 1990.
109. A. T. Erdem and A. M. Tekalp, "On the measure of the set of factorizable polynomial bispectra," *IEEE Trans. Acoust., Speech Sign. Proc.*, vol. 38, pp. 1637-1639, Sep. 1990.
110. A. M. Tekalp and M. I. Sezan, "Quantitative analysis of artifacts in linear space-invariant image restoration," *Multidimensional Systems and Sign. Proc.*, vol. 1, pp. 143-177, Jun. 1990.
111. M. I. Sezan and A. M. Tekalp, "A survey of recent developments in image restoration," *Optical Engineering*, vol. 29, pp. 393-404, May 1990.
112. R. L. Lagendijk, A. M. Tekalp, and J. Biemond, 'Maximum likelihood image and blur identification: A unifying approach,' *Optical Engineering*, vol. 29, pp. 422-435, May 1990.
113. A. M. Tekalp and G. Pavlovic, "Multichannel image modeling and Kalman filtering for multispectral image restoration," *Signal Processing*, vol. 19, pp. 221-232, March 1990.
114. M. I. Sezan and A. M. Tekalp, "Adaptive image restoration with artifact suppression using the theory of convex projections," *IEEE Trans. Acoust. Speech Sign. Proc.*, vol. 38, pp. 181-185, Jan. 1990.
115. A. E. Cetin and A. M. Tekalp, "A robust reduced update Kalman filter," *IEEE Trans. Circuits and Systems*, vol. 37, pp. 155-157, Jan. 1990.
116. A. M. Tekalp and A. T. Erdem, "Higher order spectrum factorization in one and two dimensions with applications in signal modeling and nonminimum phase system identification," *IEEE Trans. Acoust. Speech Sign. Proc.*, vol. 37, pp. 1537-1549, October 1989.
117. A. M. Tekalp, H. Kaufman, and J. W. Woods, "Edge-adaptive Kalman filtering for image restoration with ringing suppression," *IEEE Trans. Acoust. Speech Sign. Proc.*, vol. 37, pp. 892-899, June 1989.

118. M. I. Sezan, A. M. Tekalp, and R. Schaetzing, "Automatic, anatomically selective image enhancement in digital chest radiography," *IEEE Trans. Medical Imaging*, vol. 8, pp. 154-162, June 1989.
119. A. M. Tekalp, H. Kaufman, and J. W. Woods, "Model-based segmentation and space-variant restoration of blurred images by decision-directed filtering," *Signal Processing*, vol. 15, pp. 259-269, October 1988.
120. A. M. Tekalp and H. Kaufman, "On statistical identification of a class of linear image-blurs using nonminimum phase ARMA models," *IEEE Trans. Acoust. Speech Sign. Proc.*, vol. ASSP-36, pp. 1360-1363, August 1988.
121. A. M. Tekalp, H. Kaufman, and J. W. Woods, "Identification of image and blur parameters for the restoration of noncausal blurs", *IEEE Trans. Acoust. Speech Sign. Proc.*, vol. ASSP-34, pp. 963-972, August 1986.
122. A. M. Tekalp, H. Kaufman, and J. W. Woods, "Fast recursive estimation of the parameters of a space-varying autoregressive image model", *IEEE Trans. Acoust. Speech Sign. Proc.*, vol. ASSP-33, pp. 469-472, April 1985.
123. H. Kaufman, J. W. Woods, S. Dravida, and A. M. Tekalp, "Estimation and identification of two-dimensional images", *IEEE Trans. Auto. Cont.*, vol. AC-28, pp. 745-756, July 1983.

Books

1. A. M. Tekalp, *Digital Video Processing*, Prentice-Hall, 1995.
2. B. Gunsel, A. K. Jain, A. M. Tekalp, and B. Sankur (Eds.), *Multimedia Content Representation, Classification and Security*, LNCS 4105, Springer, 2006.

Book Chapters

1. G. Gurler and A. M. Tekalp, "Adaptive Streaming of Multi view Video over P2P Networks," Chap. 10 in *Emerging Technologies for 3D Video*: (ed. Dufaux, Pesquet-Popescu and Cagnazzo), forthcoming, 2012.
2. H. E. Cetingul, E. Erzin, Y. Yemez, and A. M. Tekalp, "Multimodal Speaker Identification using Discriminative Lip Motion Features," in *Visual speech recognition: Lip Segmentation and Mapping* (ed. Alan Liew), IGI Global, Hershey, PA, USA, 2008.
3. A. M. Tekalp and R. Civanlar, "Efficient Transport of 3DTV," in *Three-Dimensional Television: Capture, Transmission, and Display* (eds. H. Ozaktas and L. Onural), Springer, Heidelberg, 2007.
4. C. Canton-Ferrer, J. R. Casas, A. M. Tekalp, and M. Pardas, "Projective Kalman filter: Multiocular Tracking of 3D Locations Towards Scene Understanding," in *Lecture Notes in Computer Science*, vol. 3869, pp. 250-261 (eds. S. Renals and S. Bengio), Springer, ISBN 3-540-32549-2, Feb. 2006.
5. E. Erzin, Y. Yemez, and A. M. Tekalp, "Joint Audio-Video Processing for Robust Biometric Speaker Identification in Car," in *DSP in Mobile and Vehicular Systems* (eds. H. Abut, J. H.L. Hansen and K. Takeda), Springer, ISBN 0-387-22978-7, 2005.
6. A. M. Tekalp, "Video Indexing and Summarization," in *Encyclopedia of Human-Computer Interaction* (ed. William S. Bainbridge), Berkshire Publishing, ISBN 0-9743091-2-5, 2004.

7. S. Dockstader and A. M. Tekalp, "Biometric Feature Extraction in a Multi-Camera Surveillance System," in *Multisensor Surveillance Systems: The Fusion Perspective*, (ed. G. L. Foresti, C. S. Regazzoni, and P. Varnshey), pp. 219-234, Kluwer Academic Publishers, ISBN 1-4020-7492-1, 2003.
8. A. Ekin and A. M. Tekalp, "A Generic Event Model and Sports Video Processing for Summarization and Model-Based Search," in *Handbook of Video Databases* (ed. Borko Furht and Oge Marques), Chp. 6, pp. 123-148, CRC Press, ISBN 08493-7006-X, 2003.
9. A. M. Tekalp, "Video Segmentation," in *Handbook of Image and Video Processing* (ed. Alan C. Bovik), Chp 4.9, pp. 383-400, Academic Press, ISBN 0-12-119790-5, 2000.
10. A. M. Tekalp, "Image Sequences," in *Encyclopedia of Electrical and Electronics Eng.* (ed. John G. Webster), vol. 9, pp. 670-694, John Wiley and Sons, Inc., ISBN 0471-13949-1, 1999.
11. A. M. Tekalp and P. J. L van Beek, "Content-Based Video Compression and Manipulation using 2-D Mesh Modeling," Chp. 6 in *Visual Communications and Image Processing* (eds. C. W. Chen and Y.-Q. Zhang), Marcel Dekker, Inc., ISBN 0-8247-1928-X, 1999.
12. A. M. Tekalp, "Image and Video Restoration," Chp. 53 in *The Digital Signal Processing Handbook* (eds. V. Madisetti and D. Williams), CRC Press and IEEE Press, ISBN 0-8493-8572-5, 1998.
13. C. Toklu, A. T. Erdem, M. I. Sezan, and A. M. Tekalp, "Object Tracking Using Hierarchical 2-D Mesh Modeling For Content-Based Video Compression," in *Video Compression for Multimedia Computing* (eds. H. Li, S. Sun, and H. Derin), Kluwer, ISBN 0-7923-9790-8, 1996.
14. A. M. Tekalp and H. Kaufman, "Estimation Techniques in Image Restoration," in *Digital Image Processing: Techniques and Applications* (ed. C. T. Leondes), Control and Dynamic Systems, vol. 67, Academic Press Inc., ISBN 0-12-012767-9, 1994.
15. M. K. Ozkan, M. I. Sezan, A. T. Erdem, and A. M. Tekalp, "Multiframe Wiener Restoration of Image Sequences," Chp. 13 in *Motion Analysis and Image Sequence Processing* (eds. M. I. Sezan and R. L. Lagendijk), Kluwer, Norwell, MA, ISBN 0-7923-9329-5, 1993.
16. A. M. Tekalp and G. Pavlovic, "Restoration of Scanned Photographic Images," Chp. 8 in *Image Restoration* (ed. A. Katsaggelos), Springer-Verlag, Berlin, ISBN 0-387-53292-7, 1991.

Patents

- "System and method for embedding information in digital signals," (with Mehmet U. Celik and Gaurav Sharma) US Patent No. 6,895,101, issued May 17, 2005. (Univ. of Rochester and Xerox Corp.)
- "Method and system for object-oriented motion-based video description," (with Rajiv Mehrotra) US Patent No. 6,665,423, issued Dec. 16, 2003. (E. Kodak)
- "Mesh node motion coding to enable object based functionalities within a motion compensated transform video coder," (with Peter van Beek and Atul Puri) US Patent No. 6,339,618, issued January 15, 2002. (Sharp Labs America, AT&T)
- "Mesh node coding to enable object based functionalities within a motion compensated transform video coder," (with Atul Puri and Peter van Beek) US Patent No. 6,148,026, issued November 14, 2000. (AT&T and Sharp Labs America)
- "2-D mesh geometry and motion vector compression," (with Peter van Beek) US Patent No 6,047,088, issued April 4, 2000. (Sharp Labs America)

- “Object-based video processing using forward-tracking 2-D mesh layers,” (with Peter van Beek) US Patent No. 5,936,671, August 10, 1999. (Sharp Labs America)
- “Method for object tracking and mosaicing in an image sequence using a two-dimensional mesh,” (with C. Toklu and A. T. Erdem) US Patent No. 5,907,626, issued May 25, 1999. (E. Kodak)
- “Video compression system using a dense motion vector field and a triangular patch mesh overlay model,” (with Y. Altunbasak, and G. Bozdagi) US Patent No. 5,654,771, issued August 5, 1997. (Univ. of Rochester)

Conference Publications

1. H. Egilmez, S. T. Dane, K. T. Bagci and A. M. Tekalp, ”OpenQoS: An OpenFlow Controller Design for Multimedia Delivery with End-to-End Quality of Service over Software-Defined Networks,” APSIPA Annual Summit and Conf., Los Angeles, CA, Dec. 2012.
2. H. Egilmez, S. T. Dane, B. Gorkemli, and A. M. Tekalp, “OpenQoS: OpenFlow controller design and test network for multimedia delivery with quality of service,” NEM Summit: Implementing future media Internet towards new horizons, Istanbul, Oct. 2012.
3. H. Egilmez, S. Civanlar, and A. M. Tekalp, “A distributed QoS routing architecture for scalable video streaming over multi-domain OpenFlow networks”, IEEE Int. Conf. on Image Processing, Orlando, FL, Sept. 2012.
4. S. S. Savas, C. G. Gurler, and A. M. Tekalp, ‘Quality of experience aware adaptation strategies for multi-view video over P2P networks’, IEEE Int. Conf. on Image Processing, Orlando, FL, Sept. 2012.
5. S. S. Savas, C. G. Gurler, and A. M. Tekalp, “Evaluation of adaptation methods for multi-view video”, IEEE Int. Conf. on Image Processing, Orlando, FL, Sept. 2012.
6. C. G. Gurler, S. S. Savas, and A. M. Tekalp, “Variable chunk size and adaptive scheduling window for P2P streaming of scalable video”, IEEE Int. Conf. on Image Processing, Orlando, FL, Sept. 2012.
7. S. S. Savas, C. G. Gurler, and A. M. Tekalp, “Adaptive Multi-view Video Streaming over P2P Networks Considering Quality of Experience, ACM Multimedia Workshop on Social and Behavioral Networked Media Access, Arizona USA, November, 2011.
8. H. Egilmez, B. Gorkemli, A. M. Tekalp, and S. Civanlar, “Scalable video streaming over OpenFlow networks: An optimization framework for QoS routing,” IEEE Int. Conf. on Image Processing, Brussels, Belgium, Sept. 2011.
9. D. Kilicarslan, G. Gurler, O. Ozkasap, and A. M. Tekalp, “Energy efficient video decoding on multi-core devices,” Int. Conf. on Energy-Efficient Computing and Networking, Columbia Univ., NY, May 31-June 1 2011.
10. M. Fesci, T. Tunali, and A. M. Tekalp, “Backup parent pool approach in multicast tree overlays in P2P streaming,” IEEE Consumer Communications and Networking Conference (CCNC), Special Session on Scalable Adaptive Multicast, Las Vegas, NV, USA, Jan. 2011.
11. S. Civanlar, M. Parlakisik, A. M. Tekalp, B. Gorkemli, B. Kaytaz, and E. Onem, “A QoS-enabled OpenFlow environment for scalable video streaming,” IEEE Globecom Workshop on Network of the Future, Miami, FL, USA, Dec. 2010.

12. C. G. Gurler, K. T. Bagci, and A. M. Tekalp, "Adaptive stereoscopic 3D video streaming," Proc. of IEEE Int. Conf. Image Proc. (ICIP), Hong Kong, Sept. 2010.
13. B. Grkemli and A. M. Tekalp, "Adaptation strategies for streaming SVC video," Proc. of IEEE Int. Conf. Image Proc. (ICIP), Hong Kong, Sept. 2010.
14. G. Saygili, C. G. Gurler, and A. M. Tekalp, "Quality assessment of asymmetric stereo video coding," Proc. of IEEE Int. Conf. Image Proc. (ICIP), Hong Kong, Sept. 2010.
15. N. Ozbek and A. M. Tekalp, "Viterbi-like joint optimization of stereo extraction for on-line rate adaptation in scalable multiview video coding," Proc. of IEEE Int. Conf. Image Proc. (ICIP), Hong Kong, Sept. 2010.
16. B. Grkemli, Y. Sadi, and A. M. Tekalp, "Effects of MGS fragmentation, slice mode and extraction strategies on the performance of SVC with medium-grained scalability," Proc. of IEEE Int. Conf. Image Proc. (ICIP), Hong Kong, Sept. 2010.
17. N. Dindar, C. Basdogan, and A. M. Tekalp, "Immersive haptic interaction with media," Proc. of Visual Comm. and Image Proc. (VCIP), Huang Shan, China, July 2010.
18. F. Ofli, E. Erzin, Y. Yemez, and A. M. Tekalp, "Multi-modal analysis of dance performances for music-driven choreography synthesis," Proc. of IEEE ICASSP, Dallas, TX, USA, March 2010.
19. T. B. Abanoz and A. M. Tekalp, "Optimization of encoding configuration in scalable multiple description coding for rate-adaptive P2P video multicasting," Proc. IEEE Int. Conf. Image Proc.(ICIP), Cairo, Egypt, Nov. 2009.
20. G. Saygili, C. G. Gurler, A. M. Tekalp, "3D display dependent quality evaluation and rate allocation in stereo video coding," Proc. IEEE Int. Conf. Image Proc.(ICIP), Cairo, Egypt, Nov. 2009.
21. M. Fesci Sayit, E. T. Tunali, A. M. Tekalp, "Bandwidth-aware multiple multicast tree formation for P2P scalable video streaming using hierarchical clusters," Proc. IEEE Int. Conf. Image Proc.(ICIP), Cairo, Egypt, Nov. 2009.
22. C. G. Gurler, A. Aksay, G. Bozdagi-Akar, A. M. Tekalp, "Multi-threaded architectures and benchmark tests for real-time multi-view video decoding," IEEE Int. Conf. Multimedia and Expo(ICME), New York, USA, July 2009.
23. N. Ozbek and A. M. Tekalp, "Quality layers in scalable multi-view video coding," IEEE Int. Conf. Multimedia and Expo (ICME), New York, USA, July 2009.
24. N. Ozbek and A. M. Tekalp, "Rate-visual-distortion optimized extraction with quality layers for scalable coding of stereo video," Proc. IEEE Int. Conf. Image Processing (ICIP), San Diego, CA, Oct. 2008.
25. B. Gorkemli, M. O. Sunay, and A. M. Tekalp, "Video streaming over wireless DCCP," Proc. IEEE Int. Conf. Image Processing (ICIP), San Diego, CA, Oct. 2008.
26. F. Ofli, E. Erzin, Y. Yemez, A. M. Tekalp, C. E. Erdem, A. T. Erdem, T. Abaci, and M. K. Ozkan, "Unsupervised dance figure analysis from video for dancing avatar animation," Proc. IEEE Int. Conf. Image Proc. (ICIP), San Diego, CA, Oct. 2008.
27. Y. Demir, E. Erzin, Y. Yemez, and A. M. Tekalp, "Evaluation of audio features for audio-visual analysis of dance figures," Proc. of EUSIPCO, Lausanne, Switzerland, August 2008.

28. N. Ozbek and A. M. Tekalp, "Unequal inter-view rate allocation using scalable stereo video coding and an objective stereo video quality measure," IEEE Int. Conf. Multimedia and Expo (ICME), Hannover, Germany, July 2008.
29. E. Bozkurt, C. E. Erdem, E. Erzin, T. Erdem, M. Ozkan, and A. M. Tekalp, "Speech-driven automatic facial expression synthesis," Proc. 3DTV-CON, Istanbul, Turkey, May 2008.
30. F. Ofli, C. Canton-Ferrer, J. Tillmanne, Y. Demir, E. Bozkurt, Y. Yemez, E. Erzin, and A. M. Tekalp, "Audio-driven human body motion analysis and synthesis," Proc. IEEE ICASSP, Las Vegas, NV, April 2008.
31. E. Kurutepe, A. Aksay, C. Bilen, C. G. Gurler, T. Sikora, G. Bozdagi Akar, A. M. Tekalp, "A standards-based, flexible, end-to-end multi-view video streaming architecture" Packet Video 2007, Lausanne, Switzerland, Nov. 2007.
32. F. Ofli, E. Erzin, Y. Yemez, and A. M. Tekalp, "Estimation and analysis of facial animation parameter patterns," Proc. IEEE Int. Conf. Image Processing, San Antonio, Texas, Sept. 2007.
33. N. Ozbek, B. Gorkemli, A. M. Tekalp, and E. T. Tunali, "Adaptive streaming of scalable stereoscopic video over DCCP," Proc. IEEE Int. Conf. Image Processing, San Antonio, Texas, Sept. 2007.
34. T. B. Abanoz, and A. M. Tekalp, "Optimal selection of encoding configuration for scalable video coding," Proc. IEEE Int. Conf. Image Processing, San Antonio, Texas, Sept. 2007.
35. E. Kurutepe, M. R. Civanlar, and A. M. Tekalp, "Selective streaming of multi-view video for head-tracking 3D displays," Proc. IEEE Int. Conf. Image Processing, San Antonio, Texas, Sept. 2007.
36. F. Ofli, Y. Demir, E. Erzin, Y. Yemez, and A. M. Tekalp, "Multicamera skeleton-based audio-visual analysis of dance figures," Proc. of EUSIPCO, Poznan, Poland, Sept. 2007.
37. F. Ofli, Y. Demir, E. Erzin, Y. Yemez, and A. M. Tekalp, "Multicamera audio-visual analysis of dance figures," Proc. IEEE Int. Conf. Multimedia and Expo (ICME), Beijing, China, July 2007.
38. N. Ozbek, A. M. Tekalp, and T. Tunali, "A new scalable multi-view video coding configuration for robust selective streaming of free-viewpoint TV," Proc. IEEE Int. Conf. Multimedia and Expo (ICME), Beijing, China, July 2007.
39. E. Bas, A. M. Tekalp, and S. Salman, "Automatic vehicle counting from video for traffic flow analysis," Proc. IEEE Intelligent Vehicles Symposium, Istanbul, Turkey, June 2007.
40. O. Harmanci, K. Mihcak, and A. M. Tekalp, "Watermarking and streaming compressed video," Proc. IEEE ICASSP, Honolulu, Hawaii, April 2007.
41. N. Ozbek, A. M. Tekalp, and T. Tunali, "Rate allocation between views in scalable stereo video coding using an objective stereo quality measure," Proc. IEEE ICASSP, Honolulu, Hawaii, April 2007.
42. M. E. Sargin, E. Erzin, Y. Yemez, A. M. Tekalp, A. T. Erdem, C. Erdem, and M. Ozkan, "Prosody-driven head-gesture animation," Proc. IEEE ICASSP, Honolulu, Hawaii, April 2007.
43. E. Akyol, A. M. Tekalp, and R. Civanlar, "Adaptive peer-to-peer video streaming with optimized flexible multiple description coding," Proc. IEEE Int. Conf. Image Proc., Atlanta, GA, Oct. 2006.
44. G. Caner, A. M. Tekalp, G. Sharma, and W. Heinzelman, "Multi-view image registration for wide-baseline visual sensor networks," Proc. IEEE Int. Conf. Image Proc., Atlanta, GA, October 2006.

45. O. Harmanci and A. M. Tekalp, "Rate-distortion optimal video transport over IP with bit errors," Proc. IEEE ICIP, Atlanta, GA, October 2006.
46. T. Ozcelebi, O. Sunay, M. R. Civanlar, and A. M. Tekalp, "Application-layer QoS fairness in wireless video scheduling," Proc. IEEE Int. Conf. Image Proc., Atlanta, GA, October 2006.
47. I. Celasun, R. Siddiqui, A. E. Kanlikilicer, and A. M. Tekalp, "Hierarchical representation and coding of 3D mesh geometry," Proc. IEEE Int. Conf. Image Proc., Atlanta, GA, October 2006.
48. E. Kurutepe, M. R. Civanlar, and A. M. Tekalp, "Interactive multi-view video delivery with view-point tracking and fast stream switching," Proc. of MRCS, LNCS 4105, pp. 586-593, Springer, Sept. 2006.
49. N. Ozbek, A. M. Tekalp, "Content-aware bit allocation in scalable multi-view video coding," Proc. of MRCS, LNCS 4105, pp. 691-698, Springer, Sept. 2006.
50. A. Aksay, C. Bilen, E. Kurutepe, T. Ozcelebi, G. B. Akar, M. R. Civanlar, and A. M. Tekalp, "Temporal and spatial scaling for stereoscopic video," Proc. EUSIPCO, Florence, Italy, Sept. 2006.
51. N. Ozbek, A. M. Tekalp, and T. Tunali, "H.264 encoding of videos with large number of shot transitions using long-term reference pictures," Proc. EUSIPCO, Florence, Italy, Sept. 2006.
52. M. E. Sargin, O. Aran, A. Karpov, F. Offi, Y. Yasinnik, S. Wilson, E. Erzin, Y. Yemez, and A. M. Tekalp, "Combined gesture-speech analysis and speech driven gesture synthesis," Proc. IEEE Conf. Multimedia and Expo. (ICME), Toronto, Canada, July 2006.
53. N. Ozbek and A. M. Tekalp, "Scalable multi-view video coding for interactive 3DTV," Proc. IEEE Conf. Multimedia and Expo. (ICME), Toronto, Canada, July 2006.
54. T. Ozcelebi, F. De Vito, A. M. Tekalp, M. R. Civanlar, O. Sunay, and J. C. De Martin, "An analysis of constant bitrate and constant PSNR video encoding for wireless networks," Proc. of IEEE ICC, Istanbul, Turkey, June 2006.
55. A. M. Tekalp, "Semantic multimedia analysis for content-adaptive video streaming," Proc. of IEEE ISCAS, Kos, Greece, May 2006.
56. M. E. Sargin, E. Erzin, Y. Yemez, and A. M. Tekalp, "Multimodal speaker identification using canonical correlation analysis," Proc. IEEE ICASSP, Toulouse, France, May 2006.
57. E. Kurutepe, M. R. Civanlar, and A. M. Tekalp, "Interactive transport of multi-view videos for 3DTV applications," Proc. of PV, China, April 2006.
58. T. Ozcelebi, O. Sunay, A. M. Tekalp, and R. Civanlar, "A cross-layer optimized minimum-delay scheduling algorithm for real-time video streaming to multiple users over 1xEV-DO," Proc. of IEEE Globecom Wireless Communications Symp., St. Louis, Missouri, Nov. 2005.
59. F. De Vito, T. Ozcelebi, R. Civanlar, A. M. Tekalp, and J. C. De Martin, "Rate control for GOP level rate adaptation in H264 video coding," Proc. Int. Workshop VLBV, Sardinia, Italy, Sept. 2005.
60. T. Ozcelebi, F. De Vito, O. Sunay, A. M. Tekalp, R. Civanlar, and J. C. De Martin, "Optimal cross-layer scheduling for video Streaming over 1xEV-DO," Proc. Int. Workshop VLBV, Sardinia, Italy, Sept. 2005.
61. E. Akyol, R. Civanlar, and A. M. Tekalp, "Scalable multiple description video coding with flexible number of descriptions," Proc. IEEE ICIP, Genova, Italy, Sept. 2005.

62. O. Harmanci and A. M. Tekalp, "Stochastic frame buffers for rate distortion optimized loss resilient video communications," Proc. IEEE ICIP, Genova, Italy, Sept. 2005.
63. T. Ozcelebi, A. M. Tekalp, and R. Civanlar, "Minimum-delay content adaptive video streaming over variable bitrate channels with a novel stream-switching solution," Proc. IEEE ICIP, Genova, Italy, Sept. 2005.
64. N. Ozbek and A. M. Tekalp, "Fast H.264/AVC video encoding with multiple frame references," Proc. IEEE ICIP, Genova, Italy, Sept. 2005.
65. M. E. Sargin, E. Erzin, Y. Yemez, and A. M. Tekalp, "Lip feature extraction based on audio-visual correlation," Proc. EUSIPCO, Antalya, Turkey, Sept. 2005.
66. N. Ozbek and A. M. Tekalp, "Fast multi-frame reference video encoding with key frames," Proc. EUSIPCO, Antalya, Turkey, Sept. 2005.
67. T. Ozcelebi, A. M. Tekalp, M. R. Civanlar, and M. O. Sunay, "A cross-layer approach for minimum-delay content-adaptive video streaming over variable-bitrate channels," Proc. EUSIPCO, Antalya, Turkey, Sept. 2005.
68. E. Akyol, A. M. Tekalp, and M. R. Civanlar, "Optimal bit allocation in scalable multiple-description video coding for packet loss resilience," Proc. EUSIPCO, Antalya, Turkey, Sept. 2005.
69. E. Kurutepe, R. Civanlar, and A. M. Tekalp, "A receiver-driven multicasting framework for 3DTV transmission," Proc. EUSIPCO, Antalya, Turkey, Sept. 2005.
70. C. Canton-Ferrer, J. R. Casas, A. M. Tekalp, and M. Pardas, "Projective Kalman filter: Multiocular tracking of 3D locations towards scene understanding," Proc. MLMI'05, Edinburgh, UK, July, 2005.
71. F. De Vito, T. Ozcelebi, A. M. Tekalp, R. Civanlar, O. Sunay, and J. C. De Martin, "Multiple-objective cross-layer optimized content-adaptive scheduling for video streaming over 1xEV-DO," Proc. IEEE WirelessComm Symp., Maui, Hawaii, June 2005.
72. M. van der Schaar and A. M. Tekalp, "Integrated multi-objective cross-layer optimization for wireless multimedia transmission," Proc. IEEE ISCAS, Kobe, Japan, May 2005.
73. E. Cetingul, E. Erzin, Y. Yemez, and A. M. Tekalp, "Robust lip-motion features for speaker identification," Proc. IEEE ICASSP, Philadelphia, PA, Mar. 2005.
74. O. Harmanci and A. M. Tekalp, "A zero error propagation extension to H264 for low delay video communications over lossy channels," Proc. IEEE ICASSP, Philadelphia, PA, Mar. 2005.
75. G. Caner, A. M. Tekalp, and G. Sharma, "An adaptive filtering framework for image registration," Proc. IEEE ICASSP, Philadelphia, PA, Mar. 2005.
76. M. Celik, G. Sharma, and A. M. Tekalp, "Pitch and duration modification for speech watermarking," Proc. IEEE ICASSP, Philadelphia, PA, Mar. 2005.
77. Y. Xu, E. Saber, and A. M. Tekalp, "Object recognition by partial shape matching guided search," Proc. IEEE ICASSP, Philadelphia, PA, Mar. 2005.
78. G. Caner, A. M. Tekalp, G. Sharma, and W. Heinzelman, "Local image registration: An adaptive filtering framework," SPIE Electronic Imaging Symp., Conf. on Image and Video Communications and Processing, San Jose, CA, Jan. 2005.

79. O. Harmanaci and A. M. Tekalp, "Rate distortion optimized slicing over bit error channels," Proc. SPIE Vol. 5685, p. 924-931, SPIE Electronic Imaging Symp., Conf. on Image and Video Communications and Processing, San Jose, CA, Jan. 2005.
80. E. Akyol, A. M. Tekalp, and R. Civanlar, "Optimum scaling operator selection in scalable video coding," Proc. Int. Pict. Coding Symp. (PCS), San Francisco, CA, Dec. 2004.
81. T. Ozcelebi, A. M. Tekalp, and R. Civanlar, "Optimal rate and input format control for content and context adaptive video streaming," Proc. IEEE ICIP, Singapore, Oct. 2004.
82. E. Akyol, A. M. Tekalp, and R. Civanlar, "Motion-compensated temporal filtering within the H.264/AVC standard," Proc. IEEE ICIP, Singapore, Oct. 2004.
83. E. Cetingul, E. Erzin, Y. Yemez, and A. M. Tekalp, "Discriminative lip-motion features for biometric speaker identification," Proc. IEEE ICIP, Singapore, Oct. 2004.
84. O. Harmanaci and A. M. Tekalp, "Optimization of H.264 for low delay video communications over lossy channels," Proc. IEEE ICIP, Singapore, Oct. 2004.
85. E. Erzin, Y. Yemez, and A. M. Tekalp, "Adaptive classifier cascade for multimodal speaker identification," Proc. INTERSPEECH 2004 - ICSLP, Jeju, Korea, Oct. 2004.
86. E. Cetingul, E. Erzin, Y. Yemez, and A. M. Tekalp, "On optimal selection of lip-motion features for speaker identification," Proc. IEEE MMSP Workshop, Siena, Italy, Sept. 2004.
87. T. Ozcelebi, A. M. Tekalp, and R. Civanlar, "Optimal Rate and Input Format Control for Content and Context Adaptive Streaming of Sports Videos," Proc. IEEE MMSP Workshop, Siena, Italy, Sept. 2004.
88. Y. Xu, E. Saber, and A. M. Tekalp, "Semantic object segmentation by dynamic learning from multiple examples," Proc. IEEE ICASSP, Montreal, Canada, May 2004.
89. M. Celik, G. Sharma, and A. M. Tekalp, "Universal image steganalysis using rate-distortion curves," Security, Steganography, and Watermarking of Multimedia Contents VI, IS&T/SPIE Electronic Imaging, San Jose, CA, Jan. 2004.
90. A. M. Tekalp, "What can video analysis do for MPEG standards?," VISUAL CONTENT PROCESSING AND REPRESENTATION, PROCEEDINGS, Vol. 2849, pp. 3-5, Sept. 2003.
91. A. Ekin and A. M. Tekalp, "Robust dominant color region detection and color-based applications for sports video," Proc. IEEE ICIP, Barcelona, Spain, Sept. 2003.
92. M. Celik, G. Sharma, and A. M. Tekalp, "Collusion-resilient fingerprinting using random pre-warping," Proc. IEEE ICIP, Barcelona, Spain, Sept. 2003.
93. N. Imennov, S. Dockstader, and A. M. Tekalp, "A robust Bayesian network for motion classification," Proc. IEEE ICIP, Barcelona, Spain, Sept. 2003.
94. S. Dockstader, N. Imennov, M. Berg, and A. M. Tekalp, "Fault-tolerant tracking for gait analysis," Proc. IEEE ICIP, Barcelona, Spain, Sept. 2003.
95. A. Kanak, E. Erzin, Y. Yemez, and A. M. Tekalp, "Bimodal speaker identification with audio-video processing," Proc. IEEE ICIP, Barcelona, Spain, Sept. 2003.
96. C. Erdem, B. Sankur, and A. M. Tekalp, "Performance measures for video object segmentation and tracking," Proc. VCIP 2003, Lugano, Switzerland, July 2003.

97. A. Ekin and A. M. Tekalp, "Using cinematic features for fast and semantic sports video processing," Proc. IEEE ICME, Baltimore, MD, July 2003.
98. G. Caner, A. M. Tekalp, and W. Heinzelman, "Superresolution recovery for multi-camera surveillance imaging," Proc. IEEE ICME, Baltimore, MD, July 2003.
99. A. Ekin and A. M. Tekalp, "Generic Event Detection in Sports Video Using Cinematic Features," CVPR 2003 Workshop on Event Mining: Detection and Recognition of Events in Video, Madison, Wisconsin, June 2003.
100. M. Celik, G. Sharma, A. M. Tekalp, "Level-successive encoding for digital photography," IS&T PICS Conference, Rochester, NY, May 2003.
101. A. Ekin and A. M. Tekalp, "Shot type classification by dominant color for sports video segmentation and summarization," Proc. IEEE ICASSP, Hong Kong, April 2003.
102. S. Dockstader, N. Imennov, and A. M. Tekalp, "Stochastic modeling of motion tracking failures," Proc. IEEE ICASSP, Hong Kong, April 2003.
103. M. Celik, A. M. Tekalp, and G. Sharma, "Level-embedded lossless image compression," Proc. IEEE ICASSP, Hong Kong, April 2003.
104. A. Kanak, E. Erzin, Y. Yemez, and A. M. Tekalp, "Joint audio-video processing for biometric speaker identification," Proc. IEEE ICASSP, Hong Kong, April 2003.
105. A. Kanak, E. Erzin, Y. Yemez and A. M. Tekalp, "Joint audio-video processing for robust biometric speaker identification in cars," IEEE Workshop on DSP in Mobile and Vehicular Systems, Nagoya, Japan, April, 2003.
106. M. Celik, G. Sharma, A. M. Tekalp, and E. Saber, "Localized lossless authentication watermark," Conf. 5020: Security and Watermarking of Multimedia Contents V, IS&T/SPIE Electronic Imaging, Santa Clara, CA, Jan. 2003.
107. A. Ekin and A. M. Tekalp, "Real-time hierarchical soccer video summarization and event detection," Conf. 5021: Storage and Retrieval for Media Databases 2003, IS&T/SPIE Electronic Imaging, Santa Clara, CA, Jan. 2003.
108. G. Caner, A. M. Tekalp, and W. Heinzelman, "Performance evaluation of superresolution reconstruction from video," Conf. 5022: Image and Video Communications and Processing 2003, IS&T/SPIE Electronic Imaging, Santa Clara, CA, Jan. 2003.
109. A. Ekin and A. M. Tekalp, "Semantic video querying using an integrated semantic-syntactic model," Proc. IEEE ICIP, Rochester, NY, Sept. 2002.
110. M. Celik, G. Sharma, and A. M. Tekalp, "Reversible data hiding," Proc. IEEE ICIP, Rochester, NY, Sept. 2002.
111. A. Benitez, et al., "Semantics of multimedia in MPEG-7," Proc. IEEE ICIP, Rochester, NY, Sept. 2002.
112. S. Dockstader, M. J. Berg, and A. M. Tekalp, "Performance analysis of a kinematic human motion model," Proc. of ICME, Lausanne, Switzerland, August 2002.
113. S. Dockstader, K. A. Bergkessel, and A. M. Tekalp, "Feature extraction for the analysis of gait and human motion," Proc. ICPR, Quebec City, Quebec, August 2002.

114. S. Dockstader and A. M. Tekalp, "A kinematic model for human motion and gait analysis," ECCV Workshop on Statistical Methods in Video Processing, Copenhagen, Denmark, June 2002. (best student paper)
115. A. Ekin and A. M. Tekalp, "Unified framework for tracking and analysis of soccer video," Proc. SPIE, vol. 4671: Visual Comm. and Image Proc., San Jose, CA, Jan. 2002.
116. M. Celik, G. Sharma, A. M. Tekalp, and E. Saber, "Video authentication with self-recovery," Proc. SPIE, vol. 4675: Security and Watermarking of Multimedia Contents IV, San Jose, CA, Jan. 2002.
117. C. Eroglu-Erdem, A. M. Tekalp, and B. Sankur, "Non-rigid object tracking using performance evaluation metrics as feedback," Proc. IEEE Computer Vision and Pattern Recognition (CVPR), Kauai, Hawaii, Dec. 2001
118. M. Celik, G. Sharma, E. Saber, and A. M. Tekalp, "A hierarchical image authentication watermark with improved localization and security," Proc. IEEE ICIP, Thessaloniki, Greece, Oct. 2001.
119. S. Dockstader and A. M. Tekalp, "Multi-view spatial integration and tracking with Bayesian networks," Proc. IEEE ICIP, Thessaloniki, Greece, Oct. 2001.
120. C. Eroglu-Erdem, A. M. Tekalp, and B. Sankur, "Metrics for performance evaluation of video object segmentation and tracking without ground-truth," Proc. IEEE ICIP, Thessaloniki, Greece, Oct. 2001.
121. A. Ekin, A. M. Tekalp, and R. Mehrotra, "Automatic extraction of low-level object motion descriptors," Proc. IEEE ICIP, Thessaloniki, Greece, Oct. 2001.
122. S. L. Dockstader and A. M. Tekalp, "Multiple camera fusion for multi-object tracking," Proc. of the IEEE Int. Workshop on Multi-Object Tracking (ICCV), Vancouver, Canada, 8 July 2001, pp. ??-??.
123. A. Ekin, R. Mehrotra, and A. M. Tekalp, "Extraction of semantic description of events using Bayesian networks," Proc. IEEE ICASSP, Salt Lake City, Utah, May 2001.
124. U. Uludag, B. Günsel, and A. M. Tekalp, "Robust watermarking of busy images," Proc. SPIE, vol. 4314: Security and Watermarking of Multimedia Contents III, San Jose, CA, Jan. 2001.
125. M. U. Celik, E. Saber, G. Sharma, and A. M. Tekalp, "Geometry invariant watermarking," Proc. SPIE, vol. 4314: Security and Watermarking of Multimedia Contents III, San Jose, CA, Jan. 2001.
126. Y. Xu, E. Saber, and A. M. Tekalp, "Shape matching of partially occluded objects for image retrieval using hierarchical content description," Proc. SPIE, vol. 4315: Storage and Retrieval for Media Databases, San Jose, CA, Jan. 2001.
127. A. Ekin, A. M. Tekalp, and R. Mehrotra, "Object-based motion description: From low-level features to semantics," Proc. SPIE, vol. 4315: Storage and Retrieval for Media Databases, San Jose, CA, Jan. 2001.
128. Y. Erdogan, B. Günsel, and A. M. Tekalp, "User preference matching for smart browsing of media contents," Proc. SPIE, vol. 4315: Storage and Retrieval for Media Databases, San Jose, CA, Jan. 2001.
129. S. L. Dockstader and A. M. Tekalp, "Tracking multiple objects in the presence of articulated and occluded motion," Proc. of the IEEE Workshop on Human Motion, Austin, TX, 7-8 December 2000, pp. 88-95.
130. A. Ekin, R. Mehrotra, and A. M. Tekalp, "Parametric description of object motion using EMUs," Proc. IEEE ICIP, Vancouver, Canada, Sept. 2000.

131. A. M. Ferman, S. Krishnamachari, A. M. Tekalp, M. Abdel-Mottaleb, and R. Mehrotra, "Group-of-frame/picture color histogram descriptors for multimedia applications," Proc. IEEE ICIP, Vancouver, Canada, Sept. 2000.
132. Y. Xu, E. Saber, and A. M. Tekalp, "Image retrieval through shape matching of partially occluded objects using hierarchical content description," Proc. IEEE ICIP, Vancouver, Canada, Sept. 2000.
133. M. H. Gokcetekin, D. Harmanci, I. Celasun, and A. M. Tekalp, "Mesh-based segmentation and update for object-based video," Proc. IEEE ICIP, Vancouver, Canada, Sept. 2000.
134. M. Gokcetekin, I. Celasun, and A. M. Tekalp, "2D mesh-based detection and representation of an occluding object for object-based video," Proc. IEEE ICASSP, Istanbul, Turkey, June 2000.
135. Y. Xu, P. Duygulu, E. Saber, A. M. Tekalp, and F. Yarman-Vural, "Object based image retrieval based on multi-level segmentation," Proc. IEEE ICASSP, Istanbul, Turkey, June 2000.
136. S. Dockstader and A. M. Tekalp, "Adaptive motion estimation using local measures of texture and similarity," Proc. IEEE ICASSP, Istanbul, Turkey, June 2000.
137. Y. Fu, A. M. Tekalp, and R. Mehrotra, "Object-based motion description of video sequences," Storage and Retrieval for Image and Video Databases VIII, San Jose, CA, Jan. 2000.
138. Y. Xu, E. Saber, and A. M. Tekalp, "Hierarchical content description and matching for efficient color and shape based object retrieval by learning from user search patterns and profiles," Storage and Retrieval for Image and Video Databases VIII, SPIE vol. xxxx, San Jose, CA, Jan. 2000.
139. S. Dockstader and A. M. Tekalp, "Real-time object tracking and human face detection in cluttered scenes," Image and Video Communications and Processing, SPIE vol. 3974, pp. 975-986, San Jose, CA, Jan. 2000.
140. Y. Xu, E. Saber, and A. M. Tekalp, "Object formation by learning in visual database using hierarchical content description," *Proc. Int. Conf. Image Proc.*, Kobe, Japan, Oct. 1999.
141. A. M. Ferman and A. M. Tekalp, "A unified framework for probabilistic analysis and extraction of video content," *Proc. Int. Conf. Image Proc.*, Kobe, Japan, Oct. 1999.
142. P. E. Eren and A. M. Tekalp, "Keyframe-based bi-directional 2-D mesh representation for video object tracking and manipulation," *Proc. Int. Conf. Image Proc.*, Kobe, Japan, Oct. 1999.
143. Z. Sun, V. Ramesh, and A. M. Tekalp, "Error characterization of the factorization approach to shape and motion recovery," ICCV Workshop on Vision Algorithms: Theory and Practice (ICCV-VA'99), Corfu, Greece, Sept. 1999; published in Springer Lecture Notes in Computer Science.
144. Y. Xu, E. Saber, and A. M. Tekalp, "Hierarchical content description and object formation by learning," IEEE Workshop on Content-based Access of Image and Video Libraries (CBAIVL-99), Fort Collins, Colorado, June 1999.
145. I. Celasun, M. H. Gokcetekin, E. Ilgaz, and A. M. Tekalp, "Mesh update mechanism in optimal hierarchical 2D mesh representation, tracking, and compression for object-based video," Proc. Picture Coding Symp., Portland, OR, April 1999.
146. N. Zhuang, P.J.L. van Beek, I. Celasun, and A. M. Tekalp, "Hierarchical 2D content-based mesh tracking," SPIE vol. xxxx, VCIP '99, San Jose, CA, Jan. 1999.
147. P. E. Eren, N. Zhuang, Y. Fu, and A. M. Tekalp, "Interactive object-based analysis and manipulation of digital video," IEEE Workshop on Multimedia Signal Proc., Los Angeles, CA, Dec. 1998.

148. M. Xia, E. Saber, G. Sharma, and A. M. Tekalp, "Total-least squares regression in Neugebauer model parameter estimation for dot-on-dot halftone screens," *Proc. IS&T Non-Impact Printing (NIP) 14*, Toronto, Canada, Oct. 1998.
149. A. M. Ferman, A. M. Tekalp, and R. Mehrotra "Efficient content representation for video," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
150. B. Günsel and A. M. Tekalp, "Content-based video abstraction," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
151. M. R. Naphade, R. Mehrotra, A. M. Ferman, J. Warnick, T. S. Huang, and A. M. Tekalp, "A high performance algorithm for shot boundary detection using multiple cues," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
152. Y. Fu, A. T. Erdem, and A. M. Tekalp, "Occlusion adaptive motion snake," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
153. Z. Sun and A. M. Tekalp, "Image registration using a 3-D scene representation," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
154. I. Celasun, E. Ilgaz, A. M. Tekalp, and P.J.L. Van Beek "Optimal hierarchical design of 2D dynamic meshes for video," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
155. M. Xia, E. Saber, G. Sharma, and A. M. Tekalp, "Total-least squares regression in color printer modeling," *Proc. Int. Conf. Image Proc.*, Chicago, IL, Oct. 1998.
156. Z. Sun and A. M. Tekalp, "Mosaic generation using a 3-D representation," *IEEE IMDSP Workshop*, Alpbach, Austria, July 1998 (summary only)
157. I. Celasun, P. J.L. van Beek, and A. M. Tekalp, "Hierarchical shape representation of 2D meshes for video," *Proc. Int. Conf. Telecommunications*, Porto Carras, Greece, June 1998.
158. Z. Sun and A. M. Tekalp, "3-D model extraction from video sequences for augmented reality," *Proc. IASTED Int. Conf. Comp. Graphics and Imaging*, Halifax, Nova Scotia, June 1998.
159. Z. Sun and A. M. Tekalp, "Parametric motion modeling based on trilinear constraints for object-based video compression," *Proc. IEEE ICASSP*, Seattle, Washington, May 1998.
160. P. J.L. van Beek. I. Celasun, and A. M. Tekalp, "Hierarchical coding of 2D mesh geometry and motion," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, San Jose, CA, Feb. 1998.
161. A. M. Ferman and A. M. Tekalp, "Editing cues for content-based analysis and summarization of motion pictures," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, San Jose, CA, Feb. 1998.
162. M. Xia, E. Saber, G. Sharma, and A. M. Tekalp, "Adaptive color rendering for images containing flesh tone content," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, San Jose, CA, Feb. 1998.
163. Z. Sun and A. M. Tekalp, "Reconstruction of 3-D affine and Euclidean mesh models from video," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, San Jose, CA, Feb. 1998.
164. C. Toklu, A. M. Tekalp, and A. T. Erdem, "Semiautomatic video layering using 2-D mesh tracking," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, San Jose, CA, Feb. 1998.
165. A. M. Ferman and A. M. Tekalp, "Multiscale content extraction and representation for video indexing," *SPIE Int. Symp. Voice, Video, and Data Communications*, Dallas, TX, Nov. 1997.

166. B. Gunsel, Y. Fu, and A. M. Tekalp, "Hierarchical temporal video segmentation and content characterization," *SPIE Int. Symp. Voice, Video, and Data Communications*, Dallas, TX, Nov. 1997.
167. P. E. Eren, C. Toklu, and A. M. Tekalp, "Special effects authoring using 2D mesh models," *Proc. IEEE Int. Conf. Image Proc.*, Santa Barbara, CA, Oct. 1997.
168. C. Toklu, A. M. Tekalp, and A. T. Erdem, "Simultaneous alpha map generation and 2D mesh tracking for multimedia applications," *Proc. IEEE Int. Conf. Image Proc.*, Santa Barbara, CA, Oct. 1997.
169. B. Gunsel, A. M. Tekalp, and P. J.L. van Beek, "Moving visual representations of video objects for content-based search and browsing," *Proc. IEEE Int. Conf. Image Proc.*, Santa Barbara, CA, Oct. 1997.
170. P. J. L. van Beek, A. M. Tekalp, and A. Puri, "2-D mesh geometry and motion compression for efficient object-based video representation," *Proc. IEEE Int. Conf. Image Proc.*, Santa Barbara, CA, Oct. 1997.
171. I. Celasun, M. Xia, P. J.L. van Beek, and A. M. Tekalp, "Hierarchical 2D mesh design and compression for video," *Proc. Picture Coding Symp.*, Berlin, Germany, Sept. 1997.
172. B. Gunsel, A. M. Tekalp, and P. J.L. van Beek, "Object-based video indexing for virtual studio productions," *Proc. IEEE Int. Conf. Comp. Vision and Patt. Recog. (CVPR)*, San Juan, Puerto Rico, June 1997.
173. P. E. Eren, C. Toklu, and A. M. Tekalp, "Object-based video manipulation and composition using 2D meshes in VRML," *Proc. IEEE Workshop on Multimedia Signal Processing*, Princeton, NJ, June 1997.
174. A. M. Ferman, B. Gunsel, and A. M. Tekalp, "Motion and shape signatures for object-based indexing of MPEG-4 compressed video," *Proc. IEEE ICASSP*, Munich, Germany, Apr. 1997.
175. C. Toklu, A. T. Erdem, and A. M. Tekalp, "2-D mesh-based synthetic transfiguration of an object with occlusion," *Proc. IEEE ICASSP*, Munich, Germany, Apr. 1997.
176. P. E. Eren, Y. Altunbasak, and A. M. Tekalp, "Region-based affine motion segmentation using color information," *Proc. IEEE ICASSP*, Munich, Germany, Apr. 1997.
177. A. M. Ferman, B. Gunsel, and A. M. Tekalp, "Object-based indexing of MPEG-4 compressed video," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, vol. 3024, San Jose, CA, Feb. 1997.
178. P. J. L. van Beek and A. M. Tekalp, "Object-based video coding using forward-tracking 2-D mesh layers," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, vol. 3024, San Jose, CA, Feb. 1997.
179. C. Toklu, A. M. Tekalp, and A. T. Erdem, "2-D triangular mesh-based mosaicking for object tracking in the presence of occlusion," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, vol. 3024, San Jose, CA, Feb. 1997.
180. Y. Altunbasak and A. M. Tekalp, "Scalable mesh-based interpolative coding of synthetic and natural image objects," *Proc. IS&T/SPIE Symp. on Electronic Imaging*, vol. 3024, San Jose, CA, Feb. 1997.
181. B. Gunsel, A. M. Ferman, and A. M. Tekalp, "Video indexing through integration of syntactic and semantic features," *Third IEEE Workshop on Applications of Computer Vision*, Sarasota, Florida, Dec. 1996.
182. E. Saber and A. M. Tekalp, "Integration of color, shape, and texture for image annotation and retrieval," *Proc. IEEE Int. Conf. Image Proc.*, Lausanne, Switzerland, Sept. 1996.

183. P. E. Eren, M. I. Sezan, and A. M. Tekalp, "Robust region-based high-resolution image reconstruction from low-resolution video," *Proc. IEEE Int. Conf. Image Proc.*, Lausanne, Switzerland, Sept. 1996.
184. C. Toklu, A. M. Tekalp, A. T. Erdem, and M. I. Sezan, "2-D mesh-based tracking of deformable objects with occlusion," *Proc. IEEE Int. Conf. Image Proc.*, Lausanne, Switzerland, Sept. 1996.
185. E. Saber and A. M. Tekalp, "Region-based image annotation using color and texture cues," *Proc. European Signal Proc. Conf. (EUSIPCO)*, Trieste, Italy, Sept. 1996.
186. B. Günsel and A. M. Tekalp, "Similarity analysis for shape retrieval by example," *Proc. Int. Conf. Patt. Recog.*, Vienna, Austria, Aug. 1996.
187. E. Saber and A. M. Tekalp, "Face detection and facial feature extraction using color, shape, and symmetry based cost functions," *Proc. Int. Conf. Patt. Recog.*, Vienna, Austria, Aug. 1996.
188. Y. Altunbasak and A. M. Tekalp, "Occlusion-adaptive 2-D mesh tracking," *Proc. IEEE ICASSP*, Atlanta, Georgia, May 1996.
189. E. Saber, A. M. Tekalp, and G. Bozdagi, "Fusion of color and edge information for improved segmentation and edge linking," *Proc. IEEE ICASSP*, Atlanta, Georgia, May 1996.
190. Y. Altunbasak and A. M. Tekalp, "Closed-form solutions for polygon-based node motion estimation," *Proc. SPIE Symp. Vis. Comm. and Image Proc.*, Orlando, Florida, March 1996.
191. Y. Altunbasak and A. M. Tekalp, "An H.263-compatible system for 2-D triangular-mesh based video coding," *Proc. Picture Coding Symp.*, Melbourne, Australia, March 1996.
192. A. M. Tekalp, Y. Altunbasak, and C. Toklu "Object-based video," *IEEE IMDSP Workshop*, Belize, Mar. 1996 (summary only).
193. E. Saber and A. M. Tekalp, "Image query-by-example using region-based shape matching," *Proc. SPIE/IS&T Electronic Imaging Sci. & Tech.*, San Jose, CA, Feb. 1996.
194. Y. Altunbasak and A. M. Tekalp, "Very low bitrate video coding using object-based mesh design and tracking," *Proc. SPIE/IS&T Electronic Imaging Sci. & Tech.*, San Jose, CA, Feb. 1996.
195. G. D. Borshukov, G. Bozdagi, Y. Altunbasak, and A. M. Tekalp, "Multi-stage affine parameter clustering for improved motion segmentation," *Proc. SPIE/IS&T Electronic Imaging Sci. & Tech.*, San Jose, CA, Feb. 1996.
196. C. Toklu, A. T. Erdem, M. I. Sezan, and A. M. Tekalp, "Two-dimensional mesh tracking for synthetic transfiguration," *Proc. IEEE Int. Conf. Image Proc.*, Washington, DC, Oct. 1995.
197. Y. Altunbasak, A. M. Tekalp, and G. Bozdagi, "Two-dimensional object-based coding using a content-based mesh and affine motion parameterization," *Proc. IEEE Int. Conf. Image Proc.*, Washington, DC, Oct. 1995.
198. Y. Altunbasak and A. M. Tekalp, "Content-based mesh design for very low bitrate video coding," *Proc. Symp. Multimedia Comm. and Video Coding*, New York, NY, Oct. 1995.
199. Y. Altunbasak, A. M. Tekalp, and G. Bozdagi, "Three-dimensional versus two-dimensional knowledge based coding," *Proc. SPIE Symp. Vis. Comm. and Image Proc.*, Taipei, Taiwan, May 1995.
200. Y. Altunbasak, A. M. Tekalp, and G. Bozdagi, "Simultaneous stereo-motion fusion and 3-D motion tracking," *Proc. IEEE ICASSP*, Detroit, Michigan, May 1995.

201. A. Patti, M. I. Sezan, and A. M. Tekalp, "High resolution standards conversion of low resolution video," *Proc. IEEE ICASSP*, Detroit, Michigan, May 1995.
202. E. Saber, A. M. Tekalp, R. Eschbach, and K. Knox, "Annotation of natural scenes using adaptive color segmentation," *Proc. SPIE/IS&T Electronic Imaging Sci. & Tech.*, San Jose, CA, Feb. 1995.
203. A. Patti, M. I. Sezan, and A. M. Tekalp, "High-resolution image reconstruction from a low-resolution image sequence in the presence of time-varying motion blur," *Proc. IEEE Int. Conf. Image Proc.*, Austin, Texas, Nov. 1994.
204. Y. Altunbasak, A. M. Tekalp, and G. Bozdagi, "Simultaneous motion-disparity estimation and segmentation from stereo," *Proc. IEEE Int. Conf. Image Proc.*, Austin, Texas, Nov. 1994.
205. Gözde Bozdağı, A. Murat Tekalp, and Levent Onural, "Simultaneous 3-D motion estimation and wireframe model adaptation including photometric effects for model-based video coding," *Proc. IEEE Int. Conf. Acoust. Speech Sign. Proc.*, Adelaide, Australia, April 1994.
206. M. M. Chang, A. M. Tekalp, and M. I. Sezan, "An algorithm for simultaneous motion estimation and scene segmentation," *Proc. IEEE ICASSP*, Adelaide, Australia, April 1994.
207. A. J. Patti, M. I. Sezan, and A. M. Tekalp, "Spatio-temporal interpolation of image sequences with accelerated motion for standards conversion," *Proc. IEEE ICASSP*, Adelaide, Australia, April 1994.
208. M. M. Chang, A. J. Patti, M. I. Sezan, and A. M. Tekalp, "An adaptive Bayesian approach for color image segmentation," *Proc. SPIE Symp. Visual Comm. and Image Proc.*, Boston, Massachusetts, Nov. 1993.
209. M. M. Chang, A. J. Patti, M. I. Sezan, and A. M. Tekalp, "Segmentation of color images using an adaptive Bayesian approach," *IEEE Signal Proc. Soc. Eighth Workshop on Image and Multidim. Sign. Proc.*, Cannes, France, Sept. 8-10, 1993 (summary only).
210. Gözde Bozdağı, A. Murat Tekalp, and Levent Onural, "3-D motion and structure estimation including photometric effects with application to model-based coding of facial image sequences," *IEEE Signal Proc. Soc. Eighth Workshop on Image and Multidim. Sign. Proc.*, Cannes, France, Sept. 8-10, 1993 (summary only).
211. W. E. Smith, J. K. Riek, and A. M. Tekalp, "Reconstruction of a Three-Dimensional Volume from a Motion-Corrupted Two-Dimensional Data Set in Magnetic Resonance Imaging," *Proc. Conf. on Information Proc. in Med. Imag.*, Flagstaff, Arizona, Jun. 1993.
212. J. K. Riek, A. M. Tekalp, and W. E. Smith, "Effect of Z-Motion in the Phase of the K-space MRI Data and Identification of Periodic Z-Motion Kernels," *Proc. IEEE ICASSP*, Minneapolis, MN, Apr. 1993.
213. M. M. Chang, A. M. Tekalp, and M. I. Sezan, "Motion-Field Segmentation using an Adaptive MAP Criterion," *Proc. IEEE ICASSP*, Minneapolis, MN, Apr. 1993.
214. A. J. Patti, M. K. Ozkan, A. M. Tekalp, and M. I. Sezan, "New Approaches for Space-Variant Image Restoration," *Proc. IEEE ICASSP*, Minneapolis, MN, Apr. 1993.
215. J. K. Riek, S. Totterman, A. M. Tekalp, and W. E. Smith, "Flow Artifact Reduction Using a Phase-Corrected Real Reconstruction," *11th Annual Meeting of the Soc. for Magnetic Resonance Imaging*, San Francisco, CA, Mar. 1993 (abstract only).
216. J. K. Riek, A. M. Tekalp, and W. E. Smith, "Multiple Slice Reconstruction from Motion Corrupted Single Slice Data," *11th Annual Meeting of the Soc. for Magnetic Resonance Imaging*, San Francisco, CA, Mar. 1993 (abstract only).

217. M. M. Chang, A. M. Tekalp, and M. I. Sezan, "Bayesian Segmentation of MR Images Using 3-D Gibbsian Priors," *Proc. SPIE/IS&T Electronic Imaging Sci. & Tech.*, San Jose, CA, Feb. 1993.
218. A. J. Patti, A. M. Tekalp, and M. I. Sezan, "Image Sequence Restoration and De-Interlacing by Motion-Compensated Kalman Filtering," *Proc. SPIE/IS&T Electronic Imaging Science & Technology*, San Jose, CA, Feb. 1993.
219. F. Badilini, A. M. Tekalp, and A. J. Moss, "A Single-Layer Perceptron to Discriminate Non-Sinus Beats in Ambulatory ECG Recordings," *Proc. IEEE Int. Conf. Eng. in Med. and Biology*, Paris, France, Oct. 1992, pp. 521-522.
220. W. E. Smith, J. K. Riek, and A. M. Tekalp, "Monte-Carlo and Projection Methods to Correct Motion Artifacts in Magnetic Resonance Imaging," *OSA Annual Meeting*, Albuquerque, New Mexico, Sept. 1992 (abstract only).
221. A. M. Tekalp, M. K. Ozkan, and M. I. Sezan, "High-Resolution Image Reconstruction from Lower-Resolution Image Sequences and Space-Varying Image Restoration," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, San Francisco, CA, March 1992.
222. J. K. Riek, A. M. Tekalp, and W. E. Smith, "Modeling and Correction of Artifacts due to Z-Motion in 2-D MRI," *Proc. IEEE ICASSP*, San Francisco, CA, March 1992.
223. M. K. Ozkan, M. I. Sezan, and A. M. Tekalp, "Motion-Adaptive Weighted Averaging for Temporal Filtering of Noisy Image Sequences," *Proc. SPIE/IS&T Electronic Imaging Science & Technology*, San Jose, CA, Feb. 1992.
224. M. K. Ozkan, M. I. Sezan, A. T. Erdem, and A. M. Tekalp, "LMMSE Restoration of Blurred and Noisy Image Sequences," *Proc. SPIE Visual Comm. and Image Proc.*, Boston, MA, Nov. 1991.
225. G. Pavlovic and A. M. Tekalp, "Restoration of Images Scanned from Photographic Paper," *IEEE Signal Proc. Soc. Seventh Workshop on Multidim. Sign. Proc.*, Lake Placid, NY, Sept. 23-25, 1991 (summary only).
226. M. K. Ozkan, A. T. Erdem, M. I. Sezan, and A. M. Tekalp, "Image Sequence Restoration Using Multiframe Wiener Filtering," *IEEE Signal Proc. Soc. Seventh Workshop on Multidim. Sign. Proc.*, Lake Placid, NY, Sept. 23-25, 1991 (summary only).
227. J. K. Riek, A. M. Tekalp and W. E. Smith, "Modeling and Correction of Artifacts due to Patient Motion in the Slice-Selection Direction in MRI," *IEEE Signal Proc. Soc. Seventh Workshop on Multidim. Sign. Proc.*, Lake Placid, NY, Sept. 23-25, 1991 (summary only).
228. A. T. Erdem and A. M. Tekalp, "New Theoretical Results on the Bistatistics of 2-D Signals," *Proc. Second Workshop on Higher Order Statistics*, Chamrousse, France, July 1991.
229. A. E. Cetin, A. M. Tekalp and M. M. Chang, "Cumulant Based Robust System Identification," *Proc. Second Workshop on Higher Order Statistics*, Chamrousse, France, July 1991.
230. M. I. Sezan, G. Pavlovic, A. M. Tekalp and A. T. Erdem, "On Modeling the Focus Blur in Image Restoration," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Toronto, Canada, May 1991.
231. G. Pavlovic and A. M. Tekalp, "Maximum Likelihood Parametric Blur Identification Based on a Continuous Spatial Domain Model," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Toronto, Canada, May 1991.
232. A. M. Tekalp, A. T. Erdem and M. M. Chang, "A Composite Model that Simultaneously Realizes Arbitrary Polynomial Bispectra and Rational Power Spectra," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Toronto, Canada, May 1991.

233. A. T. Erdem and A. M. Tekalp, "Matching-Extrapolation of Bicumulants of One-D Signals Using Two-D AR Modeling," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Toronto, Canada, May 1991.
234. J. K. Riek, W. E. Smith, A. M. Tekalp, K. J. Parker, T. Mitsa and J. Szumowski, "Modeling Data Acquisition and the Effects of Patient Motion in Magnetic Resonance Imaging," *Proc. SPIE Medical Imaging V*, San Jose, California, Feb. 1991.
235. J. K. Riek, A. M. Tekalp, W. E. Smith and K. J. Parker, "Correction of Image-Phase Aberrations in MRI with Applications," *Proc. SPIE Med. Imag. V*, San Jose, California, Feb. 1991.
236. M. K. Ozkan, A. M. Tekalp and M. I. Sezan, "Identification of a Class of Space-Variant Image Blurs," *Proc. SPIE Electronic Imaging'91*, San Jose, California, Feb. 1991.
237. J. K. Riek, T. Mitsa, K. J. Parker, W. E. Smith, A. M. Tekalp and J. Szumowski, "Modeling and Suppression of Amplitude Artifacts due to z Motion in MR Imaging," *Proc. SPIE CAN-AM Eastern'90*, Rochester, New York, Oct. 1990.
238. M. I. Sezan and A. M. Tekalp, "A Tutorial Review of Recent Developments in Digital Image Restoration," *Proc. SPIE Visual Comm. and Image Proc.*, Lausanne, Switzerland, Oct. 1990.
239. A. M. Tekalp, S. Koch, R. L. Lagendijk, G. Pavlovic and H. Kaufman, "Considerations in the Identification and Restoration of Photographically Blurred Images," *Proc. V European Signal Processing Conference*, Barcelona, Spain, Sept. 1990.
240. A. T. Erdem and A. M. Tekalp, "Blur Identification Based on Bispectrum," *Proc. V European Signal Processing Conference*, Barcelona, Spain, Sept. 1990.
241. T. Mitsa, K. J. Parker, W. E. Smith, A. M. Tekalp, and J. Szumowski, "Correction of periodic motion artifacts along the slice selection axis in MRI," *32nd AAPM Annual Meeting*, St. Louis, Missouri, July 1990.
242. A. M. Tekalp and G. Pavlovic, "Maximum Likelihood Blur Identification and Restoration of Scanned Photographic Images," *Proc. Bilkent Int. Conf. on New Trends in Comm. Controls and Sign. Proc.*, Ankara, Turkey, July 1990.
243. A. M. Tekalp, M. K. Ozkan and A. T. Erdem, "Image Modeling Using Higher-Order Statistics," *Proc. Bilkent Int. Conf. on New Trends in Comm. Controls and Sign. Proc.*, Ankara, Turkey, July 1990.
244. A. T. Erdem and A. M. Tekalp, "Blur Identification Using Bispectrum," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Albuquerque, New Mexico, April 1990, pp. 1961-1964.
245. G. Pavlovic and A. M. Tekalp, "Restoration in the Presence of Multiplicative Noise with Application to Scanned Photographic Images," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Albuquerque, New Mexico, April 1990, pp. 1913-1916.
246. A. M. Tekalp, M. K. Ozkan and A. T. Erdem, "Image Modeling Using Higher Order Statistics with Application to Predictive Image Coding," *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Albuquerque, New Mexico, April 1990, pp. 1893-1896.
247. G. Wagner, P. Wellstead, H. Kaufman and A. M. Tekalp, "Comparative Analysis of Two Factorization Procedures for Identification of Noncausal Image Blurs," *Proc. 24th Annual Conference on Info. Sciences*, Princeton, New Jersey, March 1990.
248. A. M. Tekalp and G. Pavlovic, "New Results in Image Restoration," *Sixth IEEE Workshop on Multidimensional Digital Signal Processing*, Monterey, California, (summary only), Sep. 1989.

249. A. M. Tekalp and A. T. Erdem, 'Two-Dimensional Higher Order Spectrum Factorization with Application in NonGaussian Image Modeling,' *Proc. Workshop on Higher-Order Spectral Analysis*, Vail, Colorado, June 1989.
250. A. M. Tekalp and A. T. Erdem, 'Higher-Order Spectrum Factorization with Applications in Non-Gaussian Signal Modeling,' *Proc. IEEE Int. Conf. Acoust., Speech and Sign. Proc.*, Glasgow, Scotland, May 1989.
251. A. M. Tekalp and G. Pavlovic, 'Space-variant and Color Image Restoration using Kalman Filtering,' *Proc. IEEE Int. Symp. Circuits and Systems*, Portland, Oregon, May 1989.
252. A. E. Cetin and A. M. Tekalp, 'Robust Identification and Restoration of Images,' *Proc. IEEE Int. Symp. Circuits and Systems*, Portland, Oregon, May 1989.
253. H. Kaufman and A. M. Tekalp, 'Survey of Image Identification and Restoration Procedures,' *Proc. IEEE Int. Conf. Control and Applications*, Jerusalem, Israel, April 1989.
254. A. T. Erdem and A. M. Tekalp, 'Decision-Directed Adaptive Image Restoration using Multiple Image and Blur Models,' *Proc. IEEE Int. Conf. Control and Applications*, Jerusalem, Israel, April 1989.
255. A. M. Tekalp and A. T. Erdem, 'Image-Blur Identification by MA Order Estimation,' in *Sign. Proc. IV* by North Holland, (Proc. European Sign. Proc. Conf.), Grenoble, France, Sept. 1988, pp. 819-822.
256. M. I. Sezan and A. M. Tekalp, 'Adaptive Nonlinear Image Restoration Using the Theory of Convex Projections,' *Proc. IEEE Int. Symp. Circuits and Systems*, Espoo, Finland, June 1988.
257. A. M. Tekalp, H. Kaufman and J. W. Woods, 'Decision-Directed Segmentation for the Restoration of Images Degraded by A Class of Space-Variant Blurs,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, New York, NY, April 1988.
258. A. M. Tekalp and H. J. Trussell, 'Comparative Study of Some Recent Statistical and Set-Theoretic Methods for Image Restoration,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, New York, NY, April 1988.
259. M. I. Sezan and A. M. Tekalp, 'Iterative Image Restoration with Ringing Suppression Using the Method of POCS,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, New York, NY, April 1988.
260. M. I. Sezan, A. M. Tekalp and R. Schaetzing, 'Automatic, Anatomically Selective, Artifact-Free Enhancement of Digital Chest Radiographs,' *Proc. SPIE Medical Imaging II*, Newport Beach, CA, February 1988.
261. H. Kaufman and A. M. Tekalp, 'Image Identification and Restoration, A Survey,' (invited) *Proc. IEEE Conf. Decision and Control*, Los Angeles, CA, Dec. 1987, pp. 1189-1195.
262. M. I. Sezan and A. M. Tekalp, 'Regularized Adaptive Image Restoration Using the Theory of Convex Projections,' *Proc. IEEE Conf. Decision and Control*, Los Angeles, CA, Dec. 1987, pp. 1208-1209.
263. A. M. Tekalp, J. W. Woods and H. Kaufman, 'Two-Dimensional Adaptive Kalman Filtering for Image Restoration,' (invited) *Proc. ASILOMAR Conf.*, Pacific Groove, CA., Nov. 1987.
264. M. I. Sezan, C. L. Yeh, A. M. Tekalp, M. Rabbani and P. Jones, 'Application of Vector Quantization to Progressive Encoding and Transmission of Images,' *Proc. SPIE Visual Communications and Image Processing II*, Boston, Mass., Oct. 1987.

265. A. M. Tekalp, H. Kaufman, and J. W. Woods, "Decision-Directed Restoration of Space-Variant Image-Blurs via 2-D Multiple-Model Kalman Filtering," *Fifth IEEE Workshop on Multidimensional Digital Signal Processing*, Noordwijkerhout, The Netherlands, (summary only), Sept. 1987.
266. M. I. Sezan, A. M. Tekalp and C. T. Chen, 'Restoration of Noisy and Blurred Images Using the Theory of Convex Projections,' (invited) *SPSE's 40th Annual Conference*, Rochester, New York, May, 1987, pp. 37-40.
267. A. M. Tekalp, H. Kaufman and D. Angwin, 'Adaptive Restoration of Color Images,' (invited) *Proc. Fifth Yale Workshop on Applications of Adaptive Systems Theory*, New Haven, Connecticut, May 1987, pp. 161-166.
268. M. I. Sezan, A. M. Tekalp and C. T. Chen, 'Regularized Signal Restoration using the Theory of Convex Projections,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, Dallas, Texas, April 1987, pp. 1565-1568.
269. C. T. Chen, M. I. Sezan and A. M. Tekalp, 'Effects of Initialization, Constraints and Finite-Word Length in Blind Deblurring of Images by Convex Projections,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, Dallas, Texas, April 1987, pp. 1201-1204.
270. A. M. Tekalp and H. Kaufman, 'Statistical Identification of Symmetric, Noncausal, Finite-Extent Impulse Responses,' *Proc. IEEE Int. Conf. Syst., Man and Cyber.*, Atlanta, Georgia, Oct. 1986.
271. A. M. Tekalp, H. Kaufman and J. W. Woods, 'Identification of Image and Blur Parameters for the Restoration of Noncausal Blurs,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, Tampa, Florida, March 1985.
272. J. W. Woods, J. Biemond and A. M. Tekalp, 'Boundary Value Problem in Image Restoration,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, Tampa, Florida, March 1985.
273. A. M. Tekalp and H. Kaufman, 'Maximum Likelihood Identification of Unknown Blurs,' *Proc. 18th Annual Conference on Info. Sciences*, Princeton, New Jersey, March 1984.
274. A. M. Tekalp, J. W. Woods and H. Kaufman, 'A Multiple Model Algorithm for the Adaptive Restoration of Images,' *Proc. IEEE Int. Conf. Acoust., Speech Sign. Proc.*, Boston, Mass., April 1983.
275. R. Mediavilla, H. Kaufman, A. M. Tekalp and J. W. Woods, 'Multiple Models for Nonstationary Image Estimation,' *Proc. 6th IFAC Symp. Iden. and Sys. Param. Estimation*, Washington, D.C., June 1982.

Book Reviews

Image Recovery: Theory and Application, Edited by H. Stark, Academic Press, 1987, in *IEEE ASSP Magazine*, July 1988; *IEEE Trans. Acoust., Speech and Sign. Proc.*, vol. ASSP-36, p. 1924, December 1988; also in *SIAM Review*, vol. 31, pp 168-170, March 1989.

PHD GRADUATES

1. Burak Gorkemli, Ph.D., August 2010 (Koç University)
Adaptation Strategies for Scalable Video Streaming
ARGELA, Istanbul, Turkey
2. Ferda Offli, Ph.D., August 2010 (Koç University)
Audiovisual Analysis for Learning and Synthesis of Dance Performances
post-doc at University of California, Berkeley, USA

3. Tanir Ozcelebi, Ph.D., December 2006 (Koç University)
Multiple Objective Optimization for Video Streaming
post-doc at Eindhoven University, Netherlands
4. Oztan Harmanci, Ph.D., July 2006 (University of Rochester)
Video Streaming and Watermarking over Error-Prone Networks
Do-Co-Mo Labs, Palo Alto, California
5. Gulcin Caner, Ph.D., July 2006 (University of Rochester)
Multi-Camera Image Processing for Visual Surveillance
Sharp Labs. of America, Camas, Washington
6. Mehmet Celik, Ph.D., December 2004 (University of Rochester)
Digital Watermarking Methods for Authentication, Tamper Localization and Lossless Recovery
Philips Research, Eindhoven, The Netherlands
7. Ahmet Ekin, Ph.D., August 2003 (University of Rochester)
Sports Video Processing for Description, Summarization, and Search
Philips Research, Eindhoven, The Netherlands
8. Yaowu Xu, Ph.D., August 2003 (University of Rochester)
Object Segmentation and Image Labeling by Learning from Examples
On2 Inc., Clifton Park, New York
9. Erhan Eren, Ph.D., August 2002 (University of Rochester)
Object-Based Digital Video Analysis and Manipulation for Multimedia Applications
Motorola Labs., Schaumburg, Illinois
10. Mufit Ferman, Ph.D., April 2001 (University of Rochester)
Clustering Methods for Content-Based Video Analysis
Sharp Labs. of America, Camas, Washington
11. Zhaohui Sun, Ph.D., August 2000 (University of Rochester)
Object-Based Video Processing with Depth
GE Corporate Research, Schenectady, New York
12. Candemir Toklu, Ph.D., August 1998 (University of Rochester)
Object-Based Digital Video Processing using 2-D Meshes
Siemens Corporate Research, Princeton, New Jersey
13. Yucel Altunbasak, Ph.D., October 1996 (University of Rochester)
Object-Scalable, Content-Based Video Representation
and Motion Tracking for Visual Communications and Multimedia
Georgia Inst. of Technology, Atlanta, Georgia
14. Eli Saber, Ph.D., March 1996 (University of Rochester)
Automatic Image Annotation And Query-By-Example
Using Color, Shape And Texture Information
Rochester Institute of Technology, Rochester, New York
15. Michael Chang, Ph.D., December 1995 (University of Rochester)
Bayesian Analysis and Segmentation of Multichannel Image Sequences
Peerless Systems Corp., California (1997)

16. Andrew J. Patti, Ph.D., December 1995 (University of Rochester)
Digital Video Filtering for Standards Conversion and Resolution Enhancement
Hewlett Packard Company, moved to Network Computer Inc. (1998)
17. Jonathan K. Riek, Ph.D., December 1993 (University of Rochester)
Modeling, Detection and Suppression of Motion Artifacts
in Magnetic Resonance Imaging
Eastman Kodak Company, moved to Virtual Scopics, Rochester, New York
18. Mehmet K. Ozkan, Ph.D., June 1992 (University of Rochester)
Multiframe Filtering Techniques for Video Signal Processing
Thomson Consumer Electronics, moved to Momentum Inc.-Istanbul (1998)
19. Gordana Pavlović, Ph.D., July 1991 (University of Rochester)
Identification and Restoration of Images
Based on Overall Modeling of the Imaging Process
Lucent Bell Laboratories
20. A. Tanju Erdem, Ph.D., July 1990 (University of Rochester)
Modeling Higher-Order Spectra
with Applications in Signal and Image Processing
Eastman Kodak Company, moved to Momentum Inc.-Istanbul (1998)

PRESENT PHD STUDENTS

- Goktug Gurler, (Koç University)
- Tolga Bagci, (Koç University)

MS GRADUATES

- Tolga Bagci, 2012 (Koç University)
- Hilmi Egilmez, 2012 (Koç University)
- Damla Kilicarslan 2012 (Koç University)
- Sedef Savas, 2011 (Koç University)
- Nuray Dindar, 2011 (Koç University)
- Ozgun Genc, 2010 (Koç University)
- Gorkem Saygili, 2010 (Koç University)
- Goktug Gurler, 2009 (Koç University)
- Yasemin Demir, 2009 (Koç University)
- Berkin Abanoz, 2008 (Koç University)
- Erhan Bas, 2007 (Koç University)
- Emre Sargin, 2006 (Koç University)

- Engin Kurutepe, 2006 (Koç University)
- Ertan Cetingul, 2005 (Koç University)
- Emrah Akyol, 2005 (Koç University)
- Alper Kanak, 2003 (Koç University)
- Shiloh Dockstader, 2001 (University of Rochester)
- Yue Fu, 1999 (University of Rochester)
- Minghui Xia, 1998 (University of Rochester)
- Ning Zhuang, 1998 (University of Rochester)
- Françoise Aurtenechea, 1994 (University of Rochester)
- Bruce H. Pillman, 1992 (University of Rochester)

PRESENT MS STUDENTS

- Ahmet Yesil (Koç University)
- Selin Yilmaz (Koç University)