

Mohamed Abdel-Mottaleb

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BIOGRAPHY

Dr. Mohamed Abdel-Mottaleb received his PhD in computer science from the University of Maryland, College Park, in 1993. He joined the University of Miami in 2001. Currently, he chairs the Department of Electrical and Computer Engineering, where he is also a professor. His research focuses on 3-D face and ear recognition, dental biometrics, visual tracking, human-activity recognition and medical image processing. Prior to joining the University, he was with Philips Research in Briarcliff Manor, New York, where he was a principal member of the research staff and a project leader. At Philips Research he led several projects in image processing and content-based multimedia retrieval. He also represented Philips in the standardization activity of ISO for MPEG-7, where some of his work was included in the standard. He holds 21 U.S. patents and more than 30 international patents. Abdel-Mottaleb coauthored the book Human Analysis from Video, with F. Niu, published in 2008. He has published more than 120 journal and conference papers in the areas of image processing, computer vision and content-based retrieval. He is an Institute of Electrical and Electronics Engineers fellow and on the editorial board of the Pattern Recognition journal. As chair of the Department of Electrical and Computer Engineering, Abdel-Mottaleb, along with his colleagues, successfully hired several faculty who received the National Science Foundation Career Award. He works closely with colleagues both within the College and in other academic units to develop innovative coursework and curricula related to electrical and computer engineering.

RESEARCH INTERESTS

Image processing, Computer Vision, Biometric Recognition, Medical Image Processing

HIGHER EDUCATION

- University of Maryland, Maryland, Ph.D. in Computer Science. (1993)
- Alexandria University, Egypt, M.S. in Computer Science and Environmental Studies. (1987)
- Alexandria University, Egypt, B.S. in Computer Engineering. (1983)

EXPERIENCE

- University of Miami, Chair. ECE (2009 - Present)
- University of Miami, Professor. ECE (2008 - Present)
- University of Miami, Interim Chair. ECE (2009)
- University of Miami, Associate Professor. ECE (2001 - 2008)

PUBLICATIONS

Juried or Refereed Journal Articles or Exhibitions

- Roongpoovapatr, V., Elsayy, A., Wen, D., Kanokkantapong, J., Sayed, A., Syed, Z., **Abdel-Mottaleb, M.**, Yoo, S., Abou Shousha, M. F. (2018). Three-Dimensional Bowmans Micro- layer Optical Coherence Tomography for the

Diagnosis of Subclinical Keratoconus. *Investigative Ophthalmology & Visual Science*.

- Elsayy, A., Sayed, A., Wen, D., Roongpoovapatr, V., Ruggeri, M., Manns, F., **Abdel-Mottaleb, M.**, Abou Shousha, M. F. (2018). Validation Study for Corneal Microlayer Tomography Automatic Segmentation Algorithm. *Investigative Ophthalmology & Visual Science*.
- Elsayy, A., Gameiro, G., Ruggeri, M., **Abdel-Mottaleb, M.**, Manns, F., Abou Shousha, M. F. (2017). Optical Coherence Tomography Endothelium/Descemet's Membrane Complex Three Dimensional Thickness Maps in Normal Subjects. *Investigative Ophthalmology & Visual Science*.
- Maity, S., **Abdel-Mottaleb, M.**, Asfour, S. S. (2017). Multimodal biometrics recognition from facial video via deep learning with missing modalities. *Signal & Image Processing : An International Journal (SIPIJ)*, 8.
- Lie, J., You, X., **Abdel-Mottaleb, M.** (2016). Automatic Ear Landmark Localization, Segmentation, and Pose Classification in Range Images. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 46, 165-176.
- Haghghat, M., **Abdel-Mottaleb, M.** (2016). Fully Automatic Face Normalization and Single Sample Face Recognition in Unconstrained Environments. *Expert Systems With Applications*, 47, 23-34.
- Haghghat, M., **Abdel-Mottaleb, M.**, Alhalabi, W. (2016). Discriminant Correlation Analysis: Real-Time Feature Level Fusion for Multimodal Biometric Recognition. *IEEE Transactions on Information Forensics and Security*, 11, 1984-1996.
- ZHANG, Y., ABDEL-MOTTALEB, M., HE, Z., **Abdel-Mottaleb, M.** (2016). Nonlinear Regression of Saliency Guided Proposals for Unsupervised Segmentation of Dynamic Scenes. *IEICE Transactions on Information and Systems*, 467-474.
- Zhang, Y., **Abdel-Mottaleb, M.**, He, Z. (2015). Unsupervised Segmentation of Highly Dynamic Scenes through Global Optimization of Multiscale Cues Pattern Recognition. *Pattern Recognition*.
- Liu, C., Dong, S., Lu, B., **Abdel-Mottaleb, M.** (2015). Multimedia event detection with l2-regularized logistic Gaussian mixture regression. *Neural Computing and Applications*, 26, 14-Jan.
- Haghghat, M., Zonouz, S., **Abdel-Mottaleb, M.** (2015). CloudID: Trustworthy Cloud-based and Cross-Enterprise Biometric Identification. *Expert Systems With Applications*, 42, 7905-7916.
- Maity, S., **Abdel-Mottaleb, M.** (2015). 3D EAR SEGMENTATION AND CLASSIFICATION THROUGH INDEXING. *IEEE Trans. on Information Forensics and Security*, 10, 423-435.
- Khorsandi, R., **Abdel-Mottaleb, M.** (2014). Ear Biometrics And Sparse Representation Based On Smoothed L0 Norm. *International Journal of Pattern Recognition and Artificial Intelligence*.
- Matatyaho-Bullaro, D., Cogate, L., Cadavid, S., **Abdel-Mottaleb, M.**, Mason, Z. (2014). Type of Object Motion Facilitates Word Mapping in Preverbal Infants. *Journal of Experimental Psychology*, 118, 27-40.
- Zhou, J., Cadavid, S., **Abdel-Mottaleb, M.** (2012). An Efficient 3D Ear Recognition System Employing Local and Holistic Features. *IEEE Transactions on Information Forensics and Security (TIFS)*.
- Zhou, J., Cadavid, S., **Abdel-Mottaleb, M.** (2012). An Efficient 3-D Ear Recognition System Employing Local and Holistic Features. *IEEE Transactions on Information Forensics and Security*, 7, 978-991.
- Cadavid, S., **Abdel-Mottaleb, M.**, Helal, A. (2011). Exploiting Visual Quasi-Periodicity for Real-time Chewing Event Detection using Active Appearance Models and Support Vector Machines. *Personal and Ubiquitous Computing Journal, Springer*, 1-11.
- Mahoor, M. H., **Abdel-Mottaleb, M.** (2009). Face Recognition Based on 3D Ridge Images Obtained from Range Data. *Pattern Recognition*, 42, 445-451.
- Cadavid, S., **Abdel-Mottaleb, M.** (2008). 3-D Ear Modeling and Recognition from Video Sequences Using Shape from Shading. *IEEE Trans. on Information Forensics and Security*, 3, 709-718.
- Mahoor, M. H., **Abdel-Mottaleb, M.** (2008). Face Recognition Based on 3D Ridge Images Obtained from Range Data. *Journal of Pattern Recognition*.
- Mahoor, M., **Abdel-Mottaleb, M.** (2008). A Multimodal Approach for 3D Face Modeling and Recognition. *IEEE Trans. on Information Forensics and Security*, 3, 431-440.
- Nomir, O., **Abdel-Mottaleb, M.** (2008). Fusion of Matching Algorithms for Human Identification Using Dental X-Ray Radiographs. *IEEE Trans. on Information Forensics and Security*, 3, 223-233.

- Ansari, A., **Abdel-Mottaleb, M.**, Mahoor, M. H. (2008). A Multimodal Approach for 3D Face Modeling and Recognition Using 3D Deformable Facial Mask. *Machine Vision and Applications*, online, 189-203.
- Nomir, O., **Abdel-Mottaleb, M.** (2008). Hierarchical Contour Matching for Dental X-Ray Radiographs. *Journal of Pattern Recognition*, 41, 130-138.
- Niu, F., **Abdel-Mottaleb, M.** (2007). Continuous Human Activity Recognition Based on Shape and Motion Features. *International Journal of Robotics and Automation*, 22, 235-243.
- Nomir, O., **Abdel-Mottaleb, M.** (2007). Human Identification from Dental X-Ray Images based on the Shape and Appearance of the Teeth. *IEEE Trans. on Information Forensics and Security*, 2, 188-197.
- **Abdel-Mottaleb, M.**, Mahoor, M. H. (2007). Algorithms for Assessing the Quality of Facial Images. *IEEE Computational Intelligence Magazine*, 2, 10-17.
- Mahoor, M. H., **Abdel-Mottaleb, M.**, Ansari, A. (2006). Improved Active Shape Model for Facial Feature Extraction in Color Images. *Journal of Multimedia (JMM)*, 1, 21-28.
- Zhou, J., **Abdel-Mottaleb, M.** (2006). A System for Ear Biometrics from Face Profile Images. *International Journal of Graphics Vision and Image Processing*, 9-16.
- Ansari, A., **Abdel-Mottaleb, M.** (2005). Automatic Facial Feature Extraction and 3D Face Modeling using Two Orthogonal Views with Application to 3D Face Recognition. *Journal of Pattern Recognition*, 38, 2549-2563.
- Zhou, J., **Abdel-Mottaleb, M.** (2005). A Content-based System for Human Identification based on Bitewing Dental X-Ray Images. *Journal of Pattern Recognition*, 38, 2132-2142.
- Fahmy, G., Nassar, D., Haj-Said, E., Chen, H., Nomir, O., Zhou, J., Howell, R., Ammar, H., **Abdel-Mottaleb, M.**, Jain, A. (2005). Towards an Automated Dental Identification System (ADIS). *Journal of Electronic Imaging*, 14.
- Nomir, O., **Abdel-Mottaleb, M.** (2005). A system for Human Identification from X-Ray Dental Radiographs. *Journal of Pattern Recognition*, 38, 1295-1305.
- Lersudwichai, C., **Abdel-Mottaleb, M.**, Ansari, A. (2005). Tracking Multiple People with Recovery from Partial and Total Occlusion. *Pattern Recognition*, 38, 1059-1070.
- Mahoor, M. H., **Abdel-Mottaleb, M.** (2005). Classification and Numbering of Teeth in Bitewing Dental Images. *Journal of Pattern Recognition*, 38, 577-586.
- **Abdel-Mottaleb, M.**, Krishnamachari, S. (2004). Multimedia Descriptions based on MPEG-7: Extraction and Applications. *IEEE Trans. on Multimedia*, 6, 459-468.
- Dagtas, S., **Abdel-Mottaleb, M.** (2004). Generation of Video Highlights using Multimedia Features. *ACM Multimedia Systems Journal*, 9, 586-593.
- Hsu, R., **Abdel-Mottaleb, M.**, Jain, A. K. (2002). Face Detection in Color Images. *IEEE Trans. On Pattern Analysis and Machine Intelligence*, 24, 696-706.
- **Abdel-Mottaleb, M.**, Wu, H., Dimitrova, N. (1996). Aspects of Multimedia Retrieval. *Philips Journal of Research*, 227-251.
- Shneier, M., **Abdel-Mottaleb, M.** (1996). Exploiting the JPEG Compression Scheme for Image Retrieval. *IEEE Pattern Analysis and Machine Intelligence*, 849-853.
- **Abdel-Mottaleb, M.**, Rosenfeld, A. (1992). Inexact Bayesian Estimation. *Pattern Recognition*, 25.
- **Abdel-Mottaleb, M.**, Rosenfeld, A. (1992). Qualitative Bayesian Estimation of Digital Signals and Images. *Pattern Recognition*, 1371-1380.
- Elshishiny, H., **Abdel-Mottaleb, M.**, ElRaey, M. (1989). A Multistage Algorithm for Fast Classification of Patterns. *Pattern Recognition Letters*, 211-215.

Refereed Books

- Niu, F., **Abdel-Mottaleb, M.** (2008). *Human Activity Analysis from Video*. Vdm Verlag Dr. Muller Aktiengesellschaft & Co. Kg. (Germany).

Book Chapters

- Cadavid, S., Mahoor, M. H., **Abdel-Mottaleb, M.**, (2011). Multi-modal Ear and Face Modeling and Recognition. In Bhanu (Ed.), *Multibiometrics for Human Identification* (pp.). Cambridge University Press. (2011). Multi-modal Ear and Face Modeling and Recognition. In Govindaraju (Ed.), *Multibiometrics for Human Identification* (pp.). Cambridge University Press.
- Nomir, O., **Abdel-Mottaleb, M.**, (2011). Automating Human Identification Using Dental X-ray Radiographs. In Daskalaki (Ed.), *Digital Forensics for the Health Sciences: Applications in Practice and Research -- Chapter: 12* (pp. 280-314). Springer.
- Ansari, A., Mahoor, M. H., **Abdel-Mottaleb, M.**, (2009). 3D Face Mesh Modeling for 3D Face Recognition. In Pone (Ed.), *State of the Art in Face Recognition* (pp. 131-150). IN-TECH. (2009). 3D Face Mesh Modeling for 3D Face Recognition. In Karahoca (Ed.), *State of the Art in Face Recognition* (pp. 131-150). IN-TECH.
- **Abdel-Mottaleb, M.**, Mahoor, M. H., (2006). Assessment of Blurring and Facial Expression Effects on Facial Image Recognition. In (Ed.), (pp. 18-Dec). Proceeding of International Conference on Biometrics.
- **Abdel-Mottaleb, M.**, Zhou, J., (2006). Human Ear Recognition from Face Profile Images. In (Ed.), (pp. 786-792). International Conference of Biometrics.
- **Abdel-Mottaleb, M.**, Chen, L., (2005). Content-based Photo Album Management Using Faces. In Furht (Ed.), *Encyclopedia of Multimedia* (pp.). Springer.
- **Abdel-Mottaleb, M.**, Krishnamachari, S., Mankovich, N. J., Bowyer, K., Phillips, P. J.

Conference Proceedings

- ALGhamdi, M., Li, M., **Abdel-Mottaleb, M.**, **Abou Shousha, M. F.** (2019). *Semi-Supervised Transfer Learning for Convolutional Neural Networks for Glaucoma Detection*. Brighton, UK: .
- Elsayy, A., **Abou Shousha, M. F.**, **Abdel-Mottaleb, M.** (2019). *Segmentation of corneal optical coherence tomography images using Graph Search and Radon transform*. San Diego, California: proceedings of SPIE Medical Imaging.
- Elsayy, A., **Abou Shousha, M.**, **Abdel-Mottaleb, M.** (2019). *Segmentation of corneal optical coherence tomography images using randomized Hough transform*. San Diego, California, United States: proceedings of SPIE Medical Imaging.
- Roongpoovapatr, V., Sayed, A., Elsayy, A., Wen, D., **Abdel-Mottaleb, M.**, Yoo, S., **Abou Shousha, M. F.** (2018). *Diagnosis of Corneal Graft Rejection Using 3-Dimensional Endothelial Descemet's Membrane Optical Tomography*. Washington DC: American Society of Cataract and Refractive Surgery (ASCRS) 2018 Annual Meeting.
- Roongpoovapatr, V., Wen, D., Yoo, S., Sayed, A., Elsayy, A., **Abdel-Mottaleb, M.**, **Abou Shousha, M. F.** (2018). *Three-Dimensional CXL Demarcation Band Tomography to Assess the Localized Corneal Flattening Effect of Treatment*. Washington DC: American Society of Cataract and Refractive Surgery (ASCRS) 2018 Annual Meeting.
- , , Sayed, A., Elsayy, A., Roongpoovapatr, V., **Abdel-Mottaleb, M.**, Yoo, S., **Abou Shousha, M. F.** (2018). *Three-Dimensional Endothelial/Descemet Optical Tomography Maps for the Diagnosis of Fuchs Dystrophy: New Technique*. Washington DC: American Society of Cataract and Refractive Surgery (ASCRS) 2018 Annual Meeting.
- Roongpoovapatr, V., Sayed, A., Elsayy, A., Wen, D., **Abdel-Mottaleb, M.**, Yoo, S., **Abou Shousha, M. F.** (2018). *Three-Dimensional Endothelial/Descemet Optical Tomography Maps to Diagnose Fuchs Dystrophy*. Washington DC: American Society of Cataract and Refractive Surgery (ASCRS) 2018 Annual Meeting.
- Elsayy, A., Gameiro, G. R., **Ruggeri, M.**, **Abdel-Mottaleb, M.**, **Manns, F.**, **Abou Shousha, M. F.** (2017). *Optical Coherence Tomography Endothelium/Descemet's membrane Complex Three Dimensional Thickness Maps in Normal Subjects*. Investigative Ophthalmology & Visual Science.
- Haghghat, M., **Abdel-Mottaleb, M.** (2017). *Low Resolution Face Recognition in Surveillance Systems Using Discriminant Correlation Analysis*. Washington DC: The 12th IEEE Conference on Automatic Face and Gesture Recognition, FG 2017 Workshop on Heterogeneous Face Recognition.
- , I. O., Elsayy, A., Irene, C., Gustavo, G. R., Marco, R., Manns, F., **Abdel-Mottaleb, M.**, Shousha, M. A. (2017). *In Vivo Three-Dimensional Microlayer Tomography Thickness Map of Basal Corneal Epithelium Layer In Normal Subjects Obtained Using High-Resolution Optical Coherence Tomography*. Baltimore, MD: Association for Research in Vision and Ophthalmology Annual Meeting Imaging Conference.
- Elsayy, A., Gameiro, G., Ruggeri, M., **Abdel-Mottaleb, M.**, Manns, F., Shousha, M. A. (2017). *Optical Coherence Tomography Endothelium/Descemet's membrane Complex Three Dimensional*

Thickness Maps in Normal Subjects. Baltimore, Maryland: Association for Research in Vision and Ophthalmology.

- Elsayy, A., Choi, I., Sayed-Ahmed, I., Gameiro, G. , M. R., **Ullmann, S. G., Abdel-Mottaleb, M.**, Shousha, M. A. (2017). *Real-time Corneal Microlayer Optical Coherence Tomography Frame Registration and Averaging Methodology*. Baltimore, Maryland: Association for Research in Vision and Ophthalmology.
- Choi, I., Yoo, S. H., Elsayy, A., Gameiro, G. R., Sayed-Ahmed, I., Marco, R., Manns, F., **Abdel-Mottaleb, M.**, Shousha, M. A. (2017). *Three-Dimensional Bowman's Layer Microlayer Optical Coherence Tomography in Normal Subjects Shows Significant Thickening toward the Periphery*. Baltimore, MD: Association for Research in Vision and Ophthalmology Annual Meeting Imaging Conference.
- Maity, S., **Abdel-Mottaleb, M.**, Asfour, S. S. (2017). *Multimodal biometrics recognition from facial video via deep learning*. Second International Conference on Image and Signal Processing (ISPR -2016).
- Haghghat, M., **Abdel-Mottaleb, M.**, Alhalabi, W. (2016). *Discriminant correlation analysis for feature level fusion with application to multimodal biometrics*. Shanghai: IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP).
- Khorsandi, R., Taalimi, A., **Abdel-Mottaleb, M.**, Qi, H. (2015). *Joint Weighted Dictionary Learning and Classifier Training for Robust Biometric Recognition*. Orlando, FL: The IEEE Global Conference on Signal and Information Processing (GlobalSIP).
- Khorsandi, R., **Abdel-Mottaleb, M.** (2015). *Robust Object Tracking via Adaptive Sparse Representation*. Orlando, FL: The IEEE Global Conference on Signal and Information Processing (GlobalSIP).
- Khorsandi, R., **Abdel-Mottaleb, M.** (2015). *CLASSIFICATION BASED ON WEIGHTED SPARSE REPRESENTATION USING SMOOTHED L0 NORM WITH NON-NEGATIVE COEFFICIENTS*. Quebec: International Conference on Image Processing.
- Khorsandi, R., Taalimi, A., **Abdel-Mottaleb, M.** (2015). *Robust Biometrics Recognition using Joint Weighted Dictionary Learning and Smoothed L0 Norm*. Arlington, VA: 7th IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS 2015).
- Maity, S., **Abdel-Mottaleb, M.** (2015). *3D EAR SEGMENTATION AND CLASSIFICATION THROUGH INDEXING*. IEEE Trans. on Information Forensics and Security, Vol 10, no. 2.
- Haghghat, M., **Abdel-Mottaleb, M.** (2014). *Computationally Efficient Statistical Face Model in the Feature Space*. Orlando, FL: IEEE Symposium on Computational Intelligence in Biometrics and Identity Management (CIBIM).
- Lei, J., Zhou, J., **Abdel-Mottaleb, M.** (2013). *A Novel Shape-Based Interest Point Descriptor (SIP) for 3D Ear Recognition*. Melbourne: IEEE International Conference on Image Processing (ICIP).
- Lei, J., Zhou, J., **Abdel-Mottaleb, M.**, You, X. (2013). *Detection, Localization and Pose Classification of Ear in 3D Face Profile Images*. Melbourne: IEEE International Conference on Image Processing (ICIP).
- Khorsandi, R., **Abdel-Mottaleb, M.** (2013). *Gender Classification Using Facial Images and Basis Pursuit*. Your: 15th International Conference on Computer Analysis of Images and Patterns.
- Haghghat, M., **Abdel-Mottaleb, M.**, Zonouz, S. (2013). *Identification Using Encrypted Biometrics*. Your: International Conference on Computer Analysis of Images and Patterns.
- Lei, J., Zhou, J., **Abdel-Mottaleb, M.** (2013). *Gender Classification Using Automatically Detected and Aligned 3D Ear Range Data*. Madrid: The 6th IAPR International Conference on Biometrics.
- Khorsandi, R., **Abdel-Mottaleb, M.** (2013). *Gender Recognition Using 2-D Ear Images and Sparse Representation*. Clearwater, Florida: IEEE Workshop on Applications of Computer Vision.
- Khorsandi, R., Cadavid, S., **Abdel-Mottaleb, M.** (2012). *Ear recognition via sparse representation and Gabor filters*. Crystal City, VA: IEEE Fifth International Conference on Biometrics: Theory, Applications and Systems (BTAS).
- Cadavid, S., Fathy, S., Zhou, J., **Abdel-Mottaleb, M.** (2011). *An Adaptive Resolution Voxelization Framework for 3D Ear Recognition*. Crystal City, VA: International Joint Conference on Biometrics (IJCB).
- Zhou, J., Cadavid, S., **Abdel-Mottaleb, M.** (2011). *Exploiting Color SIFT Features for 2D Ear Recognition*. Brussels: International Conference on Image Processing (ICIP).
- Zhou, J., Cadavid, S., **Abdel-Mottaleb, M.** (2011). *A Computationally Efficient Approach to 3D Ear Recognition Employing Local and Holistic Features*. International Conference on Computer Vision and Pattern Recognition: Biometrics Workshop (CVPR).
- Ansari, A., Mahoor, M., **Abdel-Mottaleb, M.** (2011). *Normalized 3D to 2D Model-Based Facial Image Synthesis for 2D Model-Based Face Recognition*. IEEE GCC Conference and Exhibition.
- Zhou, J., Cadavid, S., **Abdel-Mottaleb, M.** (2010). *Histograms of Categorized Shapes for 3D Ear*

- Detection*. Washington, DC: Proceedings of the Fourth IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS 2010).
- Cadavid, S., **Abdel-Mottaleb, M.** (2010). *Exploiting Visual Quasi-Periodicity for Automated Chewing Event Detection Using Active Appearance Models and Support Vector Machines*. Istanbul: International Conference on Pattern Recognition.
 - Nomir, O., **Abdel-Mottaleb, M.** (2010). *Dental X-Ray Radiographs Enhancement by Combining Morphological Operator and Retinex*. Sharm El-Sheikh: Proceedings of the Sixth IASTED International Conference.
 - Nomir, O., **Abdel-Mottaleb, M.** (2010). *Human Identification Using the Individual's Dental Radiographs Records*. Sharm El-Sheikh: Proceedings of the Sixth IASTED International Conference.
 - Cadavid, S., **Abdel-Mottaleb, M.**, Messinger, D. S., Mahoor, M. H., Bahrack, L. E. (2009). *Detecting local audio-visual synchrony in monologues utilizing vocal pitch and facial landmark trajectories*. British Machine Vision Conference (BMVC).
 - Cadavid, S., Zhou, J., **Abdel-Mottaleb, M.** (2009). *Determining Discriminative Anatomical Point Pairings using AdaBoost for 3D Face Recognition*. Cairo: IEEE International Conference on Image Processing.
 - Cadavid, S., Mahoor, M. H., **Abdel-Mottaleb, M.** (2009). *Multi-modal Biometric Modeling and Recognition of the Human Face and Ear*. International Workshop on Safety, Security, and Rescue Robotics.
 - Mahoor, M. H., Cadavid, S., **Abdel-Mottaleb, M.** (2009). *MULTI-MODAL EAR AND FACE MODELING AND RECOGNITION*. Cairo: IEEE International Conference on Image Processing.
 - Cadavid, S., **Abdel-Mottaleb, M.** (2008). *3D Ear Modeling and Recognition from Video Sequences using Shape from Shading*. Tampa: The 19th International Conference on Pattern Recognition.
 - Mahoor, M., Ansari, A., **Abdel-Mottaleb, M.** (2008). *Multimodal (2-D AND 3-D) Face Modeling and Recognition Using Attributed Relational Graph*. San Diego, CA: International Conference on Image Processing ICIP.
 - Niu, F., Goela, N., Divakaran, A., **Abdel-Mottaleb, M.** (2008). *Audio scene segmentation for video with generic content*. San Jose, CA: Proc. SPIE, Multimedia Content Access: Algorithms and Systems II.
 - Ansari, A., **Abdel-Mottaleb, M.**, Mahoor, M. (2007). *3D Face Mesh Modeling from Range Images for 3D Face Recognition*. San Antonio, TX: International Conference on Image Processing ICIP.
 - Mahoor, M. H., **Abdel-Mottaleb, M.** (2007). *3D Face Recognition Based on 3D Ridge Lines in Range Data*. San Antonio, TX: International Conference on Image Processing ICIP..
 - Nomir, O., **Abdel-Mottaleb, M.** (2007). *Combining Matching Algorithms for Human Identification Using Dental X-Ray Radiographs*. San Antonio, TX: International conference on Image Processing ICIP.
 - Cadavid, S., **Abdel-Mottaleb, M.** (2007). *Human Identification Based on 3D Ear Models*. Washington DC: IEEE First International Conference on Biometrics: Theory, Applications and Systems (BTAS 2007),.
 - Nomir, O., **Abdel-Mottaleb, M.** (2007). *Human Identification Based on Fusing Matching Algorithms Using Dental X-Ray Radiographs*. Alexandria: International Conference on Computer Theory and Applications ICCTA.
 - Ammar, H., **Abdel-Mottaleb, M.**, Jain, A. (2007). *Automated dental identification system (ADIS)*. Philadelphia, PA: DG.O 2007.
 - Ammar, H. H., **Abdel-Mottaleb, M.**, Jain, A. K. (2006). *Automated dental identification system (ADIS)*. DG.O.
 - Mahoor, M. H., **Abdel-Mottaleb, M.** (2006). *Facial Features Extraction in Color Images Using Enhanced Active Shape Model*. London: Proceedings of 7th international conference on Automatic Face and Gesture Recognition.
 - Ansari, A., **Abdel-Mottaleb, M.**, Mahoor, M. (2006). *Disparity-Based 3D Face Modeling for 3D Face Recognition*. Atlanta, GA: International Conference on Image Processing ICIP.
 - Ansari, A., **Abdel-Mottaleb, M.** (2006). *Disparity-Based 3D Face Modeling for 3D Face Recognition*. Atlanta, GA: International Conference on Image Processing ICIP.
 - Nomir, O., **Abdel-Mottaleb, M.** (2006). *Hierarchical Dental X-Ray Radiographs Matching*. Atlanta, GA: International Conference on Image Processing ICIP.
 - Ansari, A., **Abdel-Mottaleb, M.**, Mahoor, M. (2006). *A Multimodal Approach for 3D Face Modeling and Recognition Using Deformable Mesh Model*. Baltimore, Maryland: Biometric Consortium Conference (BCC).
 - Ansari, A., **Abdel-Mottaleb, M.**, Mahoor, M. (2006). *Disparity-Based 3D Face Modeling Using 3D Deformable Mask for 3D Face Recognition*. Ontario: International Conference on Multimedia & Expo. ICME.

- Fahmy, G., El-Sherbeeney, A., Mandalal, S., **Abdel-Mottaleb, M.**, Ammar, H. (2006). *The Effect of Lighting Direction/Condition on the Performance of Face Recognition Algorithms*. Orlando, FL: Biometric Technology for Human Identification III, the SPIE Defense and Security Symposium.
- **Abdel-Mottaleb, M.**, Zhou, J. (2005). *A System for ear biometrics from face profile images*. Cairo: ICGST International Conference on Graphics, Vision and Image Processing (GVIP-05).
- Niu, F., **Abdel-Mottaleb, M.** (2005). *HMM-Based Segmentation and Recognition of Human Activities from Video Sequences*. Amsterdam: International Conference on Multimedia & Expo ICME.
- Ammar, H. H., Jain, A. K., **Abdel-Mottaleb, M.** (2005). *Automated Dental Identification System (ADIS)*. Atlanta, Georgia: Proceedings of the 2005 national conference on Digital government research.
- Chen, L., Zhang, L., Mottaleb, M., **Abdel-Mottaleb, M.** (2004). *3D Shape Constraint for Facial Feature Localization Using Probabilistic-like Output*. 6th IEEE International Conference on Automatic Face and Gesture Recognition.
- **Abdel-Mottaleb, M.**, Chen, L. (2004). *Photo Album Management using Faces Arrangement*. International Conference on Multimedia & Expo ICME.
- Fahmy, G., Nassar, D., Haj-Said, E., Chen, H., Nomir, O., Zhou, J., Howell, R., Ammar, H., **Abdel-Mottaleb, M.**, Jain, A. (2004). *Towards an Automated Dental Identification System (ADIS)*. International Conference of Biometric Authenticity, Hong Kong.
- Niu, F., **Abdel-Mottaleb, M.** (2004). *View-Invariant Human Activity Recognition Based on Shape and Motion Features*. IEEE Sixth International Symposium on Multimedia Software Engineering.
- Mahoor, M., **Abdel-Mottaleb, M.** (2004). *Automatic Classification of teeth in bitewing images*. Singapore: Proceedings of the International Conference on Image Processing.
- Ansari, A., **Abdel-Mottaleb, M.** (2004). *Automatic extraction of facial features from frontal and profile views and their 3D computations*. Honolulu, Hawaii: Proc. of The 6th IASTED International Conference on SIGNAL AND IMAGE PROCESSING SIP.
- Zhou, J., **Abdel-Mottaleb, M.** (2004). *Automatic Human identification based on Dental X-ray images*. Orlando, FL: SPIE Technologies for Homeland Security and Law Enforcement conference, the Biometric Technology for Human Identification conference.
- **Abdel-Mottaleb, M.**, Nomir, O., Nassar, D., Fahmy, G., Ammar, H. (2003). *Challenges of developing an Automated Dental Identification System*. Cairo: IEEE mid-west symposium for circuits and systems in.
- **Abdel-Mottaleb, M.**, Ravitz, G. (2003). *Detection of Plays and Breaks in Football Games Using Audiovisual Features and HMM*. Detection of Plays and Breaks in Football Games Using Audiovisual Features and HMM.
- Ansari, A., **Abdel-Mottaleb, M.** (2003). *3D Face Modeling Using Two Orthogonal Views and A Generic Face Model*. Baltimore, MD: International Conference on Multimedia & Expo ICME.
- Ansari, A., **Abdel-Mottaleb, M.** (2003). *3D Face Modeling Using Two Views and a Generic Face Model with Application to 3D Face Recognition*. Miami, FL: IEEE International Conference on Advanced Video and Signal Based Surveillance.
- Lerdsudwichai, C., **Abdel-Mottaleb, M.** (2003). *Algorithm for Multiple Faces Tracking*. Baltimore, MD: International Conference on Multimedia & Expo ICME.
- Dagtas, S., **Abdel-Mottaleb, M.** (2003). *Artificial Intelligence in the Living Room: Automated Summarization of Video Programs*. International Turkish Symposium on Artificial Intelligence and Neural Networks.
- Dagtas, S., **Abdel-Mottaleb, M.** (2001). *Extraction of TV Highlights Using Multimedia Features*. IEEE workshop on Multimedia Signal Processing.
- Hsu, R. L., **Abdel-Mottaleb, M.**, Jain, A. K. (2001). *Face detection in color images*. IEEE Int'l Conf. Image Processing.
- Krishnamachari, S., Yamada, A., **Abdel-Mottaleb, M.**, Kastani, E. (2000). *Multimedia Content Filtering, Browsing, and Matching using MPEG-7 Compact Color Descriptors*. Lyons: Proc. of Visual 2000.
- **Abdel-Mottaleb, M.**, Krishnamachari, S., Vaithilingam, G., Devara, K. (2000). *Multimedia Content Management*. Boston, MA: SPIE Photonics East, Multimedia Systems and Applications III,.
- Dagtas, S., McGee, T., **Abdel-Mottaleb, M.** (2000). *Smart Watch: An automated video event finder*. Los Angeles, California: ACM Multimedia 2000.
- Dagtas, S., McGee, T., **Abdel-Mottaleb, M.** (2000). *Smart Watch: An automated video event finder*. Los Angeles, California: ACM Multimedia 2000.
- Ferman, M., Krishnamachari, S., Tekalp, A. M., **Abdel-Mottaleb, M.**, Mehrotra, R. (2000). *Group-of-Frame/Picture Color Histogram Descriptors for Multimedia Applications*. Vancouver: Proceedings of International Conference on Image Processing.

- **Abdel-Mottaleb, M.** (2000). *Image Retrieval Based on Edge Representation*. Vancouver: seventh international conference on theoretical, experimental and applied image processing.
- Krishnamachari, S., **Abdel-Mottaleb, M.** (2000). *Compact color descriptors for fast image and video segment retrieval*. San Jose, CA: Storage and Retrieval for Media Databases, Symposium on Electronic Imaging: Science & Technology.
- **Abdel-Mottaleb, M.**, Elgammal, A. (1999). *Face Detection in Complex Environments from Color Images*. Kobe: fifth international conference on theoretical, experimental and applied image processing.
- **Abdel-Mottaleb, M.** (1999). *MPEG-7: needs and boundaries*. Kyoto: International workshop on very low bit rate video coding.
- **Abdel-Mottaleb, M.**, Vaithilingam, G., Krishnamachari, S. (1999). *Signature-based Image identification*. Boston, MA: SPIE Photonics East, Multimedia Systems and Applications II.
- **Abdel-Mottaleb, M.**, Dimitrova, N., Agnihotri, L., Dagtas, S., Jeannin, S., Krishnamachari, S., McGee, T., Vaithilingam, G. (1999). *MPEG 7: A Content Description Standard Beyond Compression*. Las Cruces, NM: IEEE Midwest symposium on circuits and systems.
- Krishnamachari, S., **Abdel-Mottaleb, M.** (1999). *Image Browsing Using Hierarchical Clustering*. 4th IEEE Symposium on Computers and Communications.
- Krishnamachari, S., **Abdel-Mottaleb, M.** (1999). *Hierarchical Clustering Algorithm for Fast Image Retrieval*. San Jose, CA: Storage and Retrieval for Image and Video Databases VII, SPIE Symposium on Electronic Imaging: Science & Technology.
- Krishnamachari, S., **Abdel-Mottaleb, M.** (1998). *A Scalable Algorithm for Image Retrieval by Color*. Chicago: fifth international conference on theoretical, experimental and applied image processing.
- **Abdel-Mottaleb, M.**, Dimitrova, N., Jeannin, S., Challapali, J. (1998). *MPEG-7: applications and supporting technologies*. Urbana, IL: International workshop on very low bit rate video coding.
- **Abdel-Mottaleb, M.**, Krishnamachari, S., Mankovich, N. (1998). *Performance Evaluation of Clustering Algorithms for Scalable Image Retrieval*. Santa Barbara, CA: IEEE Computer Society Workshop on Empirical Evaluation of Computer Vision Algorithms.
- **Abdel-Mottaleb, M.**, Carman, C., Hill, C., Mankovich, N. (1997). *Mass Detection in Single View Mammograms*. Rochester, MN: Society for Computer Applications in Radiology.
- **Abdel-Mottaleb, M.**, Carman, C., Vafi, S. (1997). *Skinline detection in Digitized Mammograms*. Rochester, MN: Society for Computer Applications in Radiology.
- Dimitrova, N., **Abdel-Mottaleb, M.** (1997). *Content-based Video Retrieval by Example Video Clip*. SPIE Symposium on Electronic Imaging: Science & Technology.
- **Abdel-Mottaleb, M.**, Dimitrova, N., Desai, R., Martino, J. (1996). *CONIVAS: CONTENT-based Image and Video Access System*. Boston: ACM Multimedia96.
- **Abdel-Mottaleb, M.**, Carman, C., Hill, C., Elliot, G., Mankovich, N. (1996). *Detecting Densities in Single View Digitized Mammograms*. Paris: Computer Assisted Radiology.
- **Abdel-Mottaleb, M.**, Carman, C., Vafi, S. (1996). *Locating the Boundary between Breast Skin Edge and the Background in Digitized Mammograms*. Chicago, Illinois: Proceedings of the third international workshop on digital mammography.
- **Abdel-Mottaleb, M.**, Chellappa, R., Rosenfeld, A. (1993). *Binocular Motion Stereo using MAP Estimation*. IEEE Conference on Computer Vision and Pattern Recognition.
- **Abdel-Mottaleb, M.**, Chellappa, R., Rosenfeld, A. (1993). *Binocular Motion Stereo with Independently Moving Objects*. International Conference on Binocular Stereopsis and Optic Flow.
- **Abdel-Mottaleb, M.**, Chellappa, R., Rosenfeld, A. (1993). *Egomotion and Structure from Monocular and Stereo Fusion*. International Conference on Binocular Stereopsis and Optic Flow.
- Smucker, J., **Abdel-Mottaleb, M.**, Pregitzer, K. (1989). *Production-level image processing of plant root systems by parallel digital analysis*. Soil Sciences.

PROFESSIONAL

Funded Research Performed

- Abdel-Mottaleb, M., "Toward FortiVault, FortiDoc and FortiVid," Sponsored by Fortinet. (2017 - 2018)
- Abdel-Mottaleb, M. (Principal Investigator), "Toward FortiVault, FortiDoc and FortiVid, Fortient," Sponsored by . (2014 - 2015)
- Abdel-Mottaleb, M. (Principal Investigator), "2D and 3D Ear Pattern Classification," Sponsored by FBI/WVU. (2011)

- 2013)

- Abdel-Mottaleb, M. (Principal Investigator), "Ear Pattern Classification ," Sponsored by FBI/WVU. (2009 - 2010)
- Abdel-Mottaleb, M. (Principal Investigator), "SmartHomebased Health Platform for Behavioral Monitoring and Alteration for Diabetic and Obese Individuals," Sponsored by NIH/UF. (2010)
- Abdel-Mottaleb, M. (Principal Investigator), "Automated 3D EAR Acquisition and Identification from Surveillance Video (with West Virginia Univeristy)," Sponsored by . (2006 - 2007)
- Abdel-Mottaleb, M., "Automated Dental Identification System (with West Virginia Univeristy and Michigan State Univeristy)," Sponsored by NSF. (2002 - 2007)
- Abdel-Mottaleb, M., "Facial Image Quality Assessment System," Sponsored by CITeR. (2004 - 2005)
- Abdel-Mottaleb, M., "Automated Dental Identification System (with West Virginia Univeristy and Michigan State Univeristy)," Sponsored by National Institute of Justice (NIJ). (2003 - 2005)
- Abdel-Mottaleb, M., "Automated Synthesis of Stereoscopic Video from Monoscopic Viedo Sequences," Sponsored by Provost Office . (2002 - 2003)

Editorial Responsibilities

Professional and Honorary Organizations

- IEEE, Fellow. (2011 - Present)
- IEEE , Senior Member . (2003 - 2011)
- IEEE, Member . (1993 - 2003)

Honors and Awards

- Certificate and Plaque by Royal Highness Crown Princess loulwa al-faisal al saud, 12th Learning and Technology Conference, LTC 2015. (2015)
- Keynote speaker, "History and Applications of Wearable Technology", LTC. (2015)
- Track Chair for the Computer Vision and Multimedia track, The 10th ACS/IEEE International Conference on Computer Systems and Applications - AICCSA'2013 . (2013)
- Keynote Speaker, Face recognition, International Conference on Computer Science and Engineering . (2012)
- Fellow, IEEE . (2011)
- Johnson A. Edosomwan Outstanding Publication Award, College of Engineering, University of Miami. (2008)
- Eliahu I. Jury Excellence in Research Award, College of Engineering, University of Miami . (2006)
- Promoted to the Senior Member status, IEEE. (2003)
- Graduated With Honors, B.Sc., Department of Computer Science and Automatic Control, Alexandria University, Egypt. (1983)
- Promoted to the status of Principal Member of Research Staff, Philips Research. (1983)
- Several Awards for team work and for the patent productivity, Philips Research. (1983)