MUTLU METE, PHD

PROFESSOR OF COMPUTER SCIENCE

Texas A&M University—Commerce

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EDUCATION

PhD, University of Arkansas at Little Rock, 2008
Applied Science, emphasis of Applied Computing
Dissertation Title: *Delineation of Malignant Areas in Histological Images of Head and Neck Cancer*

BS, Dokuz Eylul University, 2001
Computer Science
Capstone Project Title: *Design and Implementation of an Online Cookbook*

EXPERIENCE

Professor — *2023 — Present*
Department of Computer Science & Information Systems, Texas A&M University—Commerce

Associate Professor — *2015 — 2023*
Department of Computer Science & Information Systems, Texas A&M University—Commerce

Assistant Professor — *2009 — 2015*
Department of Computer Science & Information Systems, Texas A&M University—Commerce

Bioinformatics Specialist — *2008 — 2009*
University of Arkansas for Medical Sciences

Adjunct Faculty — *2009 — 2009*
Department of Applied Science, University of Arkansas at Little Rock

Research Intern — *2007 — 2007*
Department of IT Research, University of Arkansas for Medical Sciences

Research Intern — *2003 — 2003*
Arkansas Cancer Research Center

Research Assistant — *2003 — 2008*
University of Arkansas at Little Rock

TEACHING

Classroom Experience

Texas A&M University-Commerce

COSC 1301 Microcomputer Applications
COSC 1437 Programming Fundamentals II
COSC 2336 Data Structures
CSCI 333 Applied Data Analysis with Python
CSCI 340 Database Systems
CSCI 489 Parallel Computing in Bioinformatics
CSCI 490 Honor Thesis
CSCI 491 Honor Readings
CSCI 497/597 Programming Mobile Devices
CSCI 515 Fundamentals of Programming
CSCI 518 Thesis
CSCI 520 Data Structures
CSCI 526 Database Systems
CSCI 595 Human Computer Interaction Design
CSCI 595 Research Literature & Techniques
CSCI 589 Internship
CSCI 597/560 Neural Networks
BIOINF 497 Introduction to Bioinformatics

Directed Student Research and Learning

1. Master's Thesis Committee Chair, Independent Component Analysis of fMRI of Cocaine Addicted Patients, Anilkrishna Bandapelli, Jan 2012 – August 2013
2. Master's Thesis Committee Chair, An Image Processing Library for Virtual Slides, Krishnakanth Komanduri, November 2011 – December 2012
3. Undergraduate Honors Thesis, Evaluation of Skin Lesions: An Image Application for Android Platform, Judah Meek, Department of Marketing & Management, March 2011 – September 2012
4. Master's Thesis Committee Member, Competitive Evolution Using Liquid Computation, Anunay Pandey, January 2011 – June 2011
5. Master's Thesis Committee Member, Active contour on the Exact solution of the active convex Hull Model Working with noise, Surendra Chakrader Nara, August 2010 - August 2011
6. Master's Thesis Committee Chair, GPU-based Independent Component Analysis, Salih Turk, November 2011 – December 2012
7. Master's Thesis Committee Member, Huge numbers multiplication: a comparison of Single processor and multiple processor Implementation, Song Huang, November 2011 – December 2012
8. Master's Thesis Committee Member, Object tracking in video sequence using shrinking active contour as a measuring tool, Pravinkumar G. Kandhare, May 2012 – May 2013
9. Master's Thesis Committee Chair, A compact implementation of ICA algorithm using GPUs in Java, Harish Ankam June 2013 – May 2014
10. Master's Thesis Committee Chair, Software Toolbox for Multivariate Pattern Analysis of Different Brain States from Functional Magnetic Resonance Imaging Data, Kushal Bohra, November 2013 – August 2014
11. Master's Thesis Committee Chair, DynaConn: A Software for Analyzing Brain's Dynamic Functional Connectivity from fMRI Data, Johnny Esquivel, November 2013 – August 2014
12. Undergraduate Honors Thesis, An Android App: A Tool for Texas A&M University-Commerce Students, Department of Industrial Engineering, Trey Harris, March 2014 – July 2014
13. Master's Thesis Committee Member, Tracking Objects with Full Occlusion in Video Sequence Using Modified Kalman Filter With S-Aces as A Measuring Tool, Swathi Munagala, Feb 2015 – Nov 2015
14. Master's Thesis Committee Member, A novel multivariate analysis method for classification of electroencephalography (EEG) data, Seetarama Jampana, Feb 2015 – Nov 2015
15. Master's Thesis Committee Member, Regular expression and structure matching in preprocessed text, Fatma Abu Hawas, Jan 2015 – Nov 2015
16. Master's Thesis Committee Member, Object tracking in a video using SIFT and Active Contour, Chetana Divakar Nimmakayala, Feb 2015 – Nov 2015
17. Master's Thesis Committee Chair, A platform independent and graphical processing unit supported active contour implementation, Abdulmutalip Dirik, Jan 2016 – July 2016
18. Master's Thesis Committee Member, Visual Analytics for Behavior Modeling, Vishnu Sagar Sudarsanam, Jan 2016 – Nov 2016
19. Master's Thesis Committee Member, Deep Learning Techniques to Improve Autonomous Driving on Single Camera Test Bed, Rohith Kukkala, Dec 2016 – Oct 2017
20. Master's Thesis Committee Chair, Controlling Quadcopters Using Hand Gestures, Kathiravan Natarajan, May 2017 – June 2018

21. Master's Thesis Committee Chair, Graphical Processing Unit Supported Substring Search in Large Dataset of Ribonucleic Acid, Fazila A Nakhuda, Oct 2018 – Present
22. Master's Thesis Committee Chair, An Infrared Hand Image Collection and Annotation App, Mohammadshehzad Jamal, Oct 2018 – June 2019
23. Master's Thesis Committee Member, Image Description with Artificial Neural Network for Danger Detection, Shachar Elisha, Oct 2018 - June 2019
24. Master's Thesis Committee Member, Unsupervised Data Augmentation for Improving Machine Learning Models, Mohammad Al Olaimat, Oct 2018 – June 2019
25. Master's Thesis Committee Member, RNA Secondary Structure Drawing Tool with Constraints and Useful Features, Anand Sri Ram Rayudu, Oct 2018 – June 2019
26. Master's Thesis Committee Chair, A Deep Learning Approach for Improving Activity Detection On Portable Smart Devices, Huseyin Demirhan, Aug 2020 – May 2021
27. Master's Thesis Committee Co-Chair, Graphical Processing Unit Accelerated RNA Substructure Comparison and Search Engine, Anjali Kumari, Aug 2020 – May 2021
28. Master's Thesis Committee Member, Radar Returns with Artificial Neural Networks, Chris Hill, Aug 2020 – May 2021
29. Master's Thesis Committee Member, Mutation Testing Using Predictive Methods, Stephanie Duckworth, Aug 2020 – May 2021
30. Master's Thesis Committee Chair, Automated Hotspot Detection in Forest Wildfires, Venkat Oruganti, Sep 2022 – May 2023
31. PhD dissertation committee member, Omer Toycu, Motivation in Second Language Learning of Elementary Bilingual ESL Students, Department of Education, TAMU-Commerce

Awards and Honors

Teaching Excellence at Texas A&M Commerce, TAMU System, November 2011

RESEARCH

1001, GOOGLE SCHOLAR CITATIONS

Awards and Book Chapters

1. S. Kockara, M. Mete, and S. Suer, Color and Spatial Features Integrated Normalized Distance for Density Based Border Detection in Dermoscopy Images, in Color Medical Image Analysis, ed: Springer, Dordrecht, 2013, pp. 41-61.
2. M. Mete, F. Tang, X. Xu, and N. Yuruk, Finding Functional Modules, in Systems Biology for Signaling Networks, ed: Springer, New York, NY, 2010, pp. 253-273.
3. M. Mete, N. Yuruk, X. Xu, and D. Berleant, Knowledge Discovery in Textual Databases: A Concept-Association Mining Approach, in Data Engineering, ed: Springer, Boston, MA, 2009, pp. 225-243.

Refereed Journal Papers

4. Luis F Calimano-Ramirez, Mayur K Virarkar, Mauricio Hernandez, Savas Ozdemir, Mutlu Mete Kazim Gumus, MRI-based nomograms and radiomics in presurgical prediction of extraprostatic extension in prostate cancer: a systematic review, Abdominal Radiology, 1-22, 2023, Springer
5. G. Raman, B. Ashraf, Y. K. Demir, C. Kershaw, S. Cheruku, M. Atis, A. Atis, M. Atar, W. Chen, I. Ibrahim, T. Bat, M. Mete (Corresponding Author). Machine Learning Prediction for COVID-19 Disease Severity at Hospital Admission, 23, 2023/12, BMC Medical Informatics and Decision Making, 2023

6. M Akar, N Sirakov, M. Mete. Clifford algebra multivectors and kernels for melanoma classification, Mathematical Methods in the Applied Sciences, 2022, 45(7): 4056– 4068, https://doi.org/10.1002/mma.8034

7. M. Mete (Corresponding Author), M. Ayvaci V. Ariyamuthu, et al, Predicting Post-Heart Transplant Composite Renal Outcome Risk in Adults: A Machine Learning Decision Tool, Kidney International Reports, v 7, is 6, 1410-1415, 2022, Elsevier, https://doi.org/10.1016/j.ekir.2022.04.004

8. AA Amin, FG Araj, VK Ariyamuthu, MH Drazner, MUS Ayvaci, M Mete, et al, Impact of induction immunosuppression on patient survival in heart transplant recipients treated with tacrolimus and mycophenolic acid in the current allocation era, Clinical transplantation 33 (8), e13651, 2019

9. U Sakoglu, M Mete (Corresponding Author)., J Esquivel, K Rubia, R Briggs, B Adinoff, Classification of cocaine-dependent participants with dynamic functional connectivity from functional magnetic resonance imaging data, Journal of Neuroscience Research, 2019, 00: 1–14.

10. M Bayraktar, S Kockara, T Halic, M Mete, HK Wong, K Iqbal, Local edge-enhanced active contour for accurate skin lesion border detection, BMC Bioinformatics, 2018, 20 (2), 91

11. V. K. Ariyamuthu, A. A. Amin, M. H. Drazner, F. Araj, P. P. Mammen, M. Ayvaci, M. Mete, et al., Induction regimen and survival in simultaneous heart-kidney transplant recipients, The Journal of Heart and Lung Transplantation, vol. 37, pp. 587-595, 2018.

12. B. Tanriover, M. P. MacConmara, J. Parekh, C. Arce, S. Zhang, A. Gao, M. Mete, et al., Simultaneous liver-kidney transplantation in liver transplant candidates with renal dysfunction: importance of creatinine levels, dialysis, and organ quality in survival, Kidney international reports, vol. 1, pp. 221-229, 2016.

13. M. Mete (Corresponding Author), U. Sakoglu, J. S. Spence, M. D. Devous, T. S. Harris, and B. Adinoff, Successful classification of cocaine dependence using brain imaging: a generalizable machine learning approach, in BMC Bioinformatics, 2016, p. 357.

14. S. Kaya, M. Bayraktar, S. Kockara, M. Mete, T. Halic, H. E. Field, et al., Abrupt skin lesion border cutoff measurement for malignancy detection in dermoscopy images, in BMC Bioinformatics, 2016, p. 367.

15. B. Tanriover, S. Zhang, M. MacConmara, A. Gao, B. Sandikci, M. U. Ayvaci, M. Mete, et al., Induction therapies in live donor kidney transplantation on tacrolimus and mycophenolate with or without steroid maintenance, Clinical Journal of the American Society of Nephrology, p. CJN. 08710814, 2015.

16. N. M. Sirakov, Y.-L. Ou, and M. Mete (Corresponding Author) , Skin lesion feature vectors classification in models of a Riemannian manifold, Annals of Mathematics and Artificial Intelligence, vol. 75, pp. 217-229, 2015.

17. J. Lemon, S. Kockara, T. Halic, and M. Mete, Density-based parallel skin lesion border detection with webCL, BMC Bioinformatics 2015, 16 (Suppl 13):S5 doi:10.1186/1471-2105-16-S13-S5, vol. 16, 2015.

18. D. Akgün, Ü. Sakoğlu, J. Esquivel, B. Adinoff, and M. Mete (Corresponding Author), GPU accelerated dynamic functional connectivity analysis for functional MRI data, Computerized Medical Imaging and Graphics, vol. 43, pp. 53-63, 2015.

19. M. Mete (Corresponding Author), and N. M. Sirakov, Dermoscopic diagnosis of melanoma in a 4D space constructed by active contour extracted features, Computerized Medical Imaging and Graphics, vol. 36, pp. 572-579, 2012.

20. S. Suer, S. Kockara, and M. Mete, An improved border detection in dermoscopy images for density based clustering, in BMC bioinformatics, 2011, p. S12.

21. M. K. Nuthakki, M. Mete, C. Varol, and S. C. Suh, UXSOM: UML generated XML to software metrics, ACM SIGSOFT Software Engineering Notes, vol. 36, pp. 1-6, 2011.

22. M. Mete (Corresponding Author), S. Kockara, and K. Aydin, Fast density-based lesion detection in dermoscopy images, Computerized Medical Imaging and Graphics, vol. 35, pp. 128-136, 2011.

23. M. Mete (Corresponding Author) and N. M. Sirakov, Lesion detection in demoscopy images with novel density-based and active contour approaches, in BMC bioinformatics, 2010, p. S23.

24. S. Kockara, M. Mete, V. Yip, B. Lee, and K. Aydin, A soft kinetic data structure for lesion border detection, Bioinformatics, vol. 26, pp. i21-i28, 2010.

25. S. Kockara, M. Mete, B. Chen, and K. Aydin, Analysis of density based and fuzzy c-means clustering methods on lesion border extraction in dermoscopy images, in BMC bioinformatics, 2010, p. S26.

26. M. Mete (Corresponding Author), L. Hennings, H. J. Spencer, and U. Topaloglu, Automatic identification of angiogenesis in double stained images of liver tissue, in BMC Bioinformatics, 2009, p. S13.

27. M. Mete (Corresponding Author), F. Tang, X. Xu, and N. Yuruk, A structural approach for finding functional modules from large biological networks, in BMC Bioinformatics, 2008, p. S19.

28. M. Mete (Corresponding Author), X. Xu, C.-Y. Fan, and G. Shafirstein, Automatic delineation of malignancy in histopathological head and neck slides, in BMC Bioinformatics, 2007, p. S17.

Refereed Conference Papers

29. AN Arslan, M Mete, A Kumari,RNA Secondary Structure Database, Analysis Tool-Set, and Case-Study Results on SARS-CoV-2, 2021 IEEE International Conference on Bioinformatics and Biomedicine, 2471-2478

30. M Mete, N Sirakov, L Dickson, J Frieder, J Griffin, G A Hosler, A Menter, A Quaternary Classifier for the Clinical Evaluation of Pigmented Skin Lesions, 2020 IEEE 20th International Conference on Bioinformatics and Bioengineering (BIBE), 734-739, 2020, IEEE

31. M Mete, A Arslan, Graphical Processing Unit-Supported RNA Secondary Structure Comparison, Proceedings of the 12th International Conference of on Bioinformatics and Computational Biology 70, 109-118, 2020

32. K. Natarajan, T.-H. D. Nguyen, and M. Mete, Hand Gesture Controlled Drones: An Open Source Library, in Data Intelligence and Security (ICDIS), 2018 IEEE 1st International Conference on, 2018, pp. 168-175.

33. M. Mete, N. M. Sirakov, J. Griffin, and A. Menter, A novel classification system for dysplastic nevus and malignant melanoma, in Image Processing (ICIP), 2016 IEEE International Conference on, 2016, pp. 3414-3418.

34. N. M. Sirakov, M. Mete, R. Selvaggi, and M. Luong, New Accurate Automated Melanoma Diagnosing Systems, in IEEE International Conference on Healthcare Informatics 2015 (ICHI 2015), 2015.

35. S. Kockara, M. Mete, T. Halic, N. Yuruk, M. Ercan, and A. Lawrence, Fractals for Malignancy Detection in Dermoscopy Images, in IEEE International Conference on Healthcare Informatics 2015 (ICHI 2015), 2015.

36. F. Sen, R. T. Wigand, N. Agarwal, M. Mete, and R. Kasprzyk, Focal Structure Analysis in Large Biological Networks, in 6th International Conference on Bioinformatics and Biomedical Technology, 2014.

37. M. Mete and N. M. Sirakov, Optimal set of features for accurate skin cancer diagnosis, in Image Processing (ICIP), 2014 IEEE International Conference on, 2014, pp. 2256-2260.

38. D. Akgün, Ü. Sakoğlu, M. Mete, J. Esquivel, and B. Adinoff, GPU-Accelerated Dynamic Functional Connectivity Analysis for Functional MRI Data Using OpenCL, in in

Electro/Information Technology (EIT), 2014 IEEE International Conference on, 2014, pp. 255-260.

39. E. Yenialp, H. Kalkan, and M. Mete, Improving density based clustering with multi-scale analysis, in International Conference on Computer Vision and Graphics, 2012, pp. 694-701.

40. Q. Wen, W. Qu, J. Chen, and M. Mete, A novel method for counting subcellular structures labeled by green fluorescent protein, in Computational Problem-Solving (ICCP), 2012 International Conference on, 2012, pp. 500-503.

41. M. Mete, Y.-L. Ou, and N. M. Sirakov, Skin lesion feature vector space with a metric to model geometric structures of malignancy for classification, in International Workshop on Combinatorial Image Analysis, 2012, pp. 285-297.

42. M. Mete, J. Chen, Q. Wen, and X.-W. Liu, Color region annotation for microvessel density estimation, in Wavelet Active Media Technology and Information Processing (ICWAMTIP), 2012 International Conference on, 2012, pp. 145-148.

43. J. Chen, Q. Wen, C. Zhuo, and M. Mete, Extraction of color entropy sequence for micro-vessel detection in virtual slide, in Image and Signal Processing (CISP), 2012 5th International Congress on, 2012, pp. 871-875.

44. J. Chen, Q. Wen, C. Zhuo, and M. Mete, Automatic head detection for passenger flow analysis in bus surveillance videos, in Image and Signal Processing (CISP), 2012 5th International Congress on, 2012, pp. 143-147.

45. J. Chen, Q. Wen, C. Zhuo, and M. Mete, A novel approach towards head detection of giant pandas in the free-range environment, in Image and Signal Processing (CISP), 2012 5th International Congress on, 2012, pp. 814-818.

46. J. Chen, Q. Wen, C. Zhuo, and M. Mete, Pose recognition of giant pandas based on gradient shapes, in Computational Problem-Solving (ICCP), 2012 International Conference on, 2012, pp. 358-362.

47. J. Chen, Q. Wen, W. Qu, and M. Mete, Panda facial region detection based on topology modelling, in Image and Signal Processing (CISP), 2012 5th International Congress on, 2012, pp. 911-915.

48. J. Chen, Q. Wen, Z. Pang, and M. Mete, An effective approach towards color image segmentation for micro-vessel detection, in Computational Problem-Solving (ICCP), 2012 International Conference on, 2012, pp. 59-63.

49. N. M. Sirakov, M. Mete, and N. S. Chakrader, Automatic boundary detection and symmetry calculation in dermoscopy images of skin lesions, in Image Processing (ICIP), 2011 18th IEEE International Conference on, 2011, pp. 1605-1608.

50. B. Chen, B. Nordin, S. Bobba, D. Singireddy, B. Taylor, S. Kockara, M. Mete, et al., Clustering on Protein Sequence Motifs using SCAN and Positional Association Rule Algorithms, in International Conference on Bioinformatics & Computational Biology, 2011, pp. 85-90.

51. V. Yip, M. Mete, U. Topaloglu, and S. Kockara, Concept discovery for pathology reports using an N-gram model, Summit on Translational Bioinformatics, vol. 2010, p. 43, 2010.

52. X. Xu, M. Mete, H. Bisgin, K. Aydin, N. Agarwal, and T. Schweiger, Finding Community Leaders in Social Networks, in The fourth ACM Workshop on Social Network Mining and Analysis (SNAKDD) held in conjunction with the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2010). July 25, 2010, Washington DC, USA., 2010.

53. N. Yuruk, M. Mete, X. Xu, and T. A. Schweiger, AHSCAN: Agglomerative hierarchical structural clustering algorithm for networks, in Social Network Analysis and Mining, 2009. ASONAM'09. International Conference on Advances in, 2009, pp. 72-77.

54. M. Mete and U. Topaloglu, Statistical comparison of color model-classifier pairs in hematoxylin and eosin stained histological images, in Computational Intelligence in Bioinformatics and Computational Biology, 2009. CIBCB'09. IEEE Symposium on, 2009, pp. 284-291.

55. S. Kockara, V. Yip, and M. Mete, Balls hierarchy: Image segmentation by graph spanner, in Biomedical Imaging: From Nano to Macro, 2009. ISBI'09. IEEE International Symposium on, 2009, pp. 514-517.

56. N. Yuruk, M. Mete, X. Xu, and T. A. Schweiger, Finding Hierarchical Clusters in Networks, in The Seventh Annual Conference on Applied Research in Information Technology, 2008, p. 20.

57. N. Yuruk, M. Mete, X. Xu, and T. A. Schweiger, A divisive hierarchical structural clustering algorithm for networks, in Data Mining Workshops, 2007. ICDM Workshops 2007. Seventh IEEE International Conference on, 2007, pp. 441-448.

58. M. Mete, X. Xu, C.-Y. Fan, and G. Shafirstein, A machine learning approach for identification of head and neck squamous cell carcinoma, in Bioinformatics and Biomedicine, 2007. BIBM 2007. IEEE International Conference on, 2007, pp. 29-34.

59. M. Mete, X. Xu, C.-Y. Fan, and G. Shafirstein, Head and neck cancer detection in histopathological slides, in Data Mining Workshops, 2006. ICDM Workshops 2006. Sixth IEEE International Conference on, 2006, pp. 223-230.

60. X. Xu, M. Mete, and N. Yuruk, Mining concept associations for knowledge discovery in large textual databases, in Proceedings of the 2005 ACM symposium on Applied computing, 2005, pp. 549-550.

Research Activities

61. L. Dickson, J. Frieder, J. Griffin, G. Hosler, M. Mete, N. Sirakov, et al., A novel automated dermoscopy-based image analyzer for the clinical evaluation of pigmented lesions and early detection of melanoma, ed, 2017.

62. S. Ramesh, M. Mete, N. Yuruk, and A. Arslan, Density Based Visualization of Big Data With Graphical Processing Units, in Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2015.

63. J. E. Esquivel, M. Mete, and Ü. Sakoğlu, DynaConn: A Software for Analyzing Brain's Dynamic Functional Connectivity from fMRI Data, in 11th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

64. K. Bohra, Ü. Sakoğlu, and M. Mete, Software Toolbox for Multivariate Pattern Analysis of Different Brain States from Functional Magnetic Resonance Imaging Data, in Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

65. H. Ankam, M. Mete, and Ü. Sakoğlu, A Compact Independent Component Analysis Implementation with GPU, in 11th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

66. D. Akgun, J. E. Esquivel, and M. Mete, Sakoğlu, Ünal, OpenMP-Accelerated Dynamic Functional Connectivity Analysis on Multicore Computer, in 11th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

67. M. Mete, H. Ankam, and Ü. Sakoğlu, A Graphical Processing Unit Supported Neuroimaging Software in JAVA, in 10th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2013.

68. J. E. Esquivel, M. Mete, and Ü. Sakoğlu, Software for Analyzing Brain's Dynamic Functional Connectivity from fMRI, in Proceedings of the IEEE EMBS Annual Medical Device Symposium, 2013.

69. M. M. Mete Devous, J. Spence, and B. Adinoff, A Support Vector Machines Model To Classify Cocaine Patients, Alcoholism: Clinical & Experimental Research, vol. 36, p. 396A, 2012.

70. R. F. Murphy, A. Bateman, U. Hinxton, T. Lengauer, Y. Moreau, D. Durand, M. Mete, et al., ISMB 2010 ORGANIZATION, 2010.

71. R. K. Komanduri and M. Mete, High Performance Processing of Virtual Slide on GPUs, in 9th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2012.

72. M. Mete, B. Adinoff, M. Devous, and J. Spence, A machine learning approach for patient classification in cocaine addiction via SPECT images, in College on Problems of Drug Dependence, 2011.

73. B. Chen, M. Mete, and S. Kockara, Parameter-Free Multi-Level Fuzzy C-Means Clustering for Unsupervised Structure Detection In Histological Images, in SDPS 2010 Transformative Systems Conference, 2010.

74. M. Mete, Delineation of malignant areas in histological images of head-neck cancer, PhD Dissertation, University of Arkansas at Little Rock, 2008.

Patents

75. G. Shafirstein, X. Xu, and M. Mete, Image processing apparatus and method for histological analysis, ed: US Patent 7,853,089, 2010.

Presentations Given

1. Academic Internship: How, When, Where. February 25, 2022, Rice University, STEM Club

2. Participated and presented in IEEE 20th International Conference on Bioinformatics and Bioengineering (BIBE) conference, Oct 22, 2020

3. M. Mete, TAMU-Commerce Graduate School Leo Talks, Biomedical Applications of Machine Learning, April 2019

4. M. Mete, Successful classification of cocaine dependence using brain imaging: a generalizable machine learning approach, Department of Computer Science Colloquium, September 2018

5. Lauren Dickson, Jillian Frieder, John Griffin, Gregory Hosler, Mutlu Mete, Nikolay Sirakov, Alan Menter, A novel automated dermoscopy-based image analyzer for the clinical evaluation of pigmented lesions and early detection of melanoma, Texas Dermatological Society, 2017 Annual Meeting, Bastrop, TX, Sep 29-30, 2017, (Won 2nd place)

6. S. Ramesh, M. Mete, N. Yuruk, and A. Arslan, Density Based Visualization of Big Data With Graphical Processing Units, in Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2015.

7. J. E. Esquivel, M. Mete, and Ü. Sakoğlu, DynaConn: A Software for Analyzing Brain's Dynamic Functional Connectivity from fMRI Data, in 11th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

8. K. Bohra, Ü. Sakoğlu, and M. Mete, Software Toolbox for Multivariate Pattern Analysis of Different Brain States from Functional Magnetic Resonance Imaging Data, in Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

9. H. Ankam, M. Mete, and Ü. Sakoğlu, A Compact Independent Component Analysis Implementation with GPU, in 11th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

10. D. Akgun, J. E. Esquivel, and M. Mete, Sakoğlu, Ünal, OpenMP-Accelerated Dynamic Functional Connectivity Analysis on Multicore Computer, in 11th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2014.

11. M. Mete, H. Ankam, and Ü. Sakoğlu, A Graphical Processing Unit Supported Neuroimaging Software in JAVA, in 10th Midsouth Computational Biology and Bioinformatics Society Conference (MCBIOS), 2013.

12. J. E. Esquivel, M. Mete, and Ü. Sakoğlu, Software for Analyzing Brain's Dynamic Functional Connectivity from fMRI, in Proceedings of the IEEE EMBS Annual Medical Device Symposium, 2013.

13. M. Mete (Author Only), UT Dallas Neuroscience Conference, UT Dallas, Dallas. (April 13, 2012).

14. M. Mete (Presenter & Author), NeuroImaging Reseach at NIH, A computation method for classification of addicted patients, NIH - NIDA NeuroImaging Reseach, Baltimore. (March 2012).
15. M. Mete (Presenter & Author), Texas Research Society on Alcoholism, A Support Vector Machines Model to Classify Cocaine Addicted Patients, College Station, TX. (February 24, 2012).
16. M. Mete (Presenter & Author), Department of Mathematics Colloquium, Automatic delineation of malignancy in histopathological head and neck slides, Dept. of Mathematics, BIN. (November 2, 2011).
17. M. Mete (Presenter & Author), Department of Physics Colloquium, Complex Networks, Dept. of Physics, Science Building, (January 2013).
18. M. Mete (Presenter & Author), Department of Computer Science - ETU, Automatic delineation of malignancy in histopathological head and neck slides, Economy and Technology University - Turkey. (May 11, 2009).

Contracts, Grants and Sponsored Research

1. Synchronizing Activities of Breast Cancer and the Environment Research Centers, Submitted National Institute of Health, December 2009, Co-PI, $716,669. Not funded.
2. Applications of Contemporary Mathematics to Scientific and Engineering Research, Submitted to National Science Foundation, September 27, 2009, Co-PI, $1,862,137. Not funded.
3. REU SITE: Research Experiences for Undergraduates in Medical Image Analysis, Submitted to National Science Foundation, August 2014, Co-PI, $327,348. Not funded.
4. Center for Patterns and Abstractions Discovery in Image Collections, Interdisciplinary Research Incentive Competition, Submitted to National Science Foundation, September 2009, Co-PI. Not funded.
5. Identification of Region-of-interests in High Dimensional Histological Slides, Submitted to Norman Hackerman Advanced Research Program, September 12009, PI, $92,000. Not funded.
6. Parallel Image-guided Interventions to Assist Pathologists in Identification of Melanocytic Skin Lesions, Submitted Twice to National Institute of Health, June 2012, $290,000. Not funded.
7. Fast Microvessel Detection in Virtual Slides of Solid Tumors, Sponsored by National Natural Science Foundation of China (Grant#: 61150110482), Co-PI, January 2012 - January 2013. $30,000. **Funded**.
8. Fast Quantification of Angiogenesis in Virtual Slides, Sponsored by Texas A&M University-Commerce, Co-PI, September 2011 - October 30, 2012, $12,963. **Funded**.
9. Independent Component Analysis Based Support Vector Machine Classification Method, Sponsored by National Institute of Health / NIDA, PI, September 2011 - September 2013, $132,934. **Funded**.
10. Delineation of Skin Cancer and Lesions by Filters Supported Active Contour, Sponsored by Texas A&M University-Commerce, Co-PI, September 2010 - October 2011, $14,533. **Funded**.
11. Skin Cancer Identification Using Active Contours' Extracted Features and Geometry of Manifolds, Submitted Twice to National Institute of Health, Co-PI, October 25, 2010, $279,000. Not funded.
12. Skin Cancer Identification Using Active Contours' Extracted Features and Geometry of Manifolds, Submitted to by National Institute of Health, Co-PI, March 2011, $309,000.00. Not funded.
13. Automated Classification of Cocaine Addicted Patients via fMRI Brain Images with Independent Component Analysis Supported Features, Sponsored by The Scientific & Technological Research Council of Turkey, Co-PI, May 2012-May 2013. $24,000. **Funded**.

14. Using MapReduce for Medical Big-data Computing, Submitted to Texas A&M University-Commerce, Co-PI, Co-PI, $11,000. Not funded.
15. Closing the Gap between Neuroimaging and Machine Learning, Sponsored by Texas A&M University-Commerce, PI, September 2012 - October 2013, $13,733. **Funded**.
16. A Fast Independent Component Analysis in GPU, Summer Research Scholarship for a Master Student, Sponsored by Texas A&M University-Commerce, Scholarship Advisor, June 2011, $4,000. **Funded**.
17. DynaConn: A Software for Dynamic Functional Connectivity Analysis of fMRI, Summer Research Scholarship for a Master Student, Sponsored by Texas A&M University-Commerce, Scholarship Advisor, June 2011, $4,000. **Funded**.
18. Density Based Visualization of Big Data With Graphical Processing Units, Summer Research Scholarship for a Master Student, Sponsored by Texas A&M University-Commerce, Scholarship Advisor, June 2011, $4,000. **Funded**.
19. Building Infrastructure Leading to Diversity, Submitted to National Institute of Health, March 2014, Co-PI, $2,000,000. Not funded.
20. Summer School on Biomedical Image Analysis, Sponsored by The Scientific & Technological Research Council of Turkey, PI, 2013, $2,500. **Funded**.
21. Open-source Dynamic Functional Connectivity Analysis Toolbox for fMRI, Submitted Twice to National Institute of Health, June 2014, Co-PI, $337,000. Not funded.
22. Validation of New Skin Cancer Identification Rules, Submitted Twice to National Institute of Health, 2015 and 2016, Co-PI, $132,000. Not funded.
23. Novel System for Dysplastic Nevi and Melanoma Diagnosing and Prediction, NIH-National Cancer Institute, March 2017, Co-PI, $137,000. Not funded.
24. A Smart Logger and Telemedicine App for Prevention of Foot Amputations, National Institute of Health, 2017, PI, $256,000. Not funded.
25. III:Small:RUI: New and improved RNA structure analysis tools for the RNASSAC website, National Science Foundation, 2017, Co-PI, $286,000. Not funded.
26. FOOTAPP: An mHealth framework to prevent diabetic foot amputations, National Institute of Health, 2018, PI, $529,000. Not funded.
27. III:Small:RUI: Graphics Processing Unit (GPU) based Algorithms for RNA Substructure Search and Comparison on a Large Database of Predicted Structures, National Science Foundation, 2018, Co-PI, $286,000. Not funded.
28. Automated Quaternary Melanoma Prediction and Diagnosing Clinical Rule Design, Melanoma Research Foundation, 2018, Co-PI, $114,000. Not funded.
29. FOOTAPP: FOOTAPP: A smart telehealth tool to prevent fatal diabetic foot amputations, submitted to NIH, PI. Total Amount $464,404. Not Funded
30. DARPA MTO Request for Information (RFI): DARPA-SN-22-04 Machine Learning Applied to Radiofrequency Signals, 2021, Co-PI, Not funded
31. Expanding RNA Dataset for Fast Secondary Structure Comparisons, TAMU-C Presidential GAR Award, 2021, $15,000, **Funded**
32. Winner of NIST UAS 3.0 First Responder UAS Triple Challenge: Step-1, Speed, Resilience, Security. Co-PI. 2021, $7000, **Funded**
33. DARPA MTO Request for Information (RFI): DARPA-SN-22-04 Machine Learning Applied to Radiofrequency Signals, Co-PI, Not Funded
34. Semi-autonomous UAV applications, TAMU-C Presidential GAR Award, TAMU-C Presidential GAR Award, May 2022, $15,000. **Funded**

35. REU Site: Summer Research Program for Community College Students in AI-enabled Autonomous Ground and Aerial Vehicle Applications at Texas A&M University-Commerce, submitted to NSF in September 2022 as PI. Total Amount $295,500. Pending
36. NIH R01, MRI-Based Radiomics and Deep Learning Models to Predict Clinically Significant Prostate Cancer, $959,000, pending (PI)
37. NSF REU, REU Site: Summer Research Program for Community College Students in AI-enabled Autonomous Ground and Aerial Vehicle Applications at Texas A&M University – Commerce, $275,000, pending (PI)
38. Texas Division of Emergency Management, Computer Vision for 'Reburn' Detection in 'Smoldering Fire' Areas and Fire Suppression System with UASs Equipped with Balloons, $20,000, pending (CoPI)

SERVICE

Editorial and Review Activities

- Austrian Science Fund (FWF), Proposal Review Panelist, April 2019
- NSF Panelist, 2019, 2020
- Associate Editor, International Journal of Biometrics and Bioinformatics (IJBB), November 1, 2011 – May 2014
- Ad Hoc Reviewer, Papers, PLOS Computational Biology, Public Library of Science, November 26, 2011- Present
- Ad Hoc Reviewer, Papers, Multi Conference on Computer Science and Information Systems, September 25, 2011 - Present
- Ad Hoc Reviewer, Papers, BMC Research Notes, BioMed Central, Research Notes, September 21, 2011 - Present
- PS Member, Computational Bioimaging, International Symposium on Visual Computing, July 8, 2011 - Present
- Ad Hoc Reviewer, Papers, Journal of Current Bioinformatics, July 1, 2011 - Present
- Ad Hoc Reviewer, Papers, Journal of Real Time Imaging, July 1, 2013 - Present
- Ad Hoc Reviewer, Papers, BMC System Biology, April 1, 2013 - Present
- Ad Hoc Reviewer, Papers, International Journal of Pattern Recognition and Artificial Intelligence, July, 2012 - Present
- Program Committee, Papers, Advances in Low-Level Color Image Processing, 2013
- Program Organizer, Ph.D. Workshop at IEEE International Symposium on Multimedia, February 15, 2012 - 2016.
- Ad Hoc reviewer, Oxford Bioinformatics
- Ad Hoc reviewer, The Journal of Computerized Medical Imaging and Graphics
- Ad Hoc Reviewer, PLOS Computational Biology, Public Library of Science, November 26, 2011- Present
- Ad Hoc Reviewer, BMC Research Notes, BioMed Central, Research Notes, September 21, 2011 - Present
- Ad Hoc Reviewer, Journal of Current Bioinformatics, July 1, 2011 - Present
- Ad Hoc Reviewer, Journal of BMC Bioinformatics, 2011 - Present

- Ad Hoc Reviewer, IEEE Transactions on Biomedical Engineering, 2010 - Present
- Ad Hoc Reviewer, Journal of Real Time Imaging, July 1, 2013 - Present
- Ad Hoc Reviewer, Journal of Algorithms for Molecular Biology
- Ad Hoc Reviewer, Journal of Forensic Sciences
- Ad Hoc Reviewer, Journal of Expert Systems with Applications
- Ad Hoc Reviewer, Journal of BMC System Biology, April 1, 2013 - Present
- Ad Hoc Reviewer, International Journal of Pattern Recognition and Artificial Intelligence, July, 2012 - Present
- PC Member, Multi Conference on Computer Science and Information Systems, 2011
- PC Member, Computational Bioimaging, International Symposium on Visual Computing, 2011

Service to University, College, Department, and Public

- New Student Orientation, Departmental Representative, 2010 - present
- Committee Member, Committee for Ph.D. in Computational Science, Member, March 1, 2010 – June 2013
- Program Organizer, UIL Programming Competition, April 16, 2011
- Program Organizer, UIL Programming Competition, May 10, 2010
- Library Liaison, Digital Course Context, November 15, 2011 – June 2016
- Undergraduate advisor, August 15, 2012 - Present
- Computer Science Curriculum Development Committee, Co-Chair, March 1, 2011 - Present.
- Master Program Placement Test Regulation Committee, Member, May 2013 – May 2016
- ABET committee, Member, Nov 2012-present
- Chair, College Tenure and Promotion Committee (2021)
- Member of university wide Graduate council 2019-2022
- Faculty advisor for university wide student organization of Cancer Support Group
- Commerce High School Computing Certificate Committee, Member, April 2013-Present
- College IRB committee member, Oct 2013 – Sep 2016
- ABET training in ABET-organized workshop, Irving, TX, Oct 20 2013
- Obtained Quality Matter Certification on “Improve Your Online Course”, 2017
- Leo Talks, presented “Biomedical Applications of Machine Learning”, April 2019
- Present on college-transfer process and how to prepare academic CV at Richland College, Sep 2016, Richland College, Dallas
- Completed Department Head Training, 2021-2022
- Plano ISD Science Fair, Senior Software, Judge