B. PRABHAKARAN

Associate Vice President for
Research Centers & Institutes,
Professor
Department of Computer Science,
Richardson, TX 75080

Email: bprabhakaran@utdallas.edu
URL: http://www.utdallas.edu/~praba
Phone (Work) +1-2142986161
The University of Texas at Dallas

EDUCATION

1. **Post-Doctoral**: Department of Computer Science, University of Maryland, College Park, MD 20742, USA, September 1995 - September 1997. (Post-doc Advisor: Prof. V.S. Subrahmanian).
2. **Doctor of Philosophy**, Department of Computer Science & Engineering, Indian Institute of Technology, Madras @ Chennai, - 600 036, India, July 1995.
   Dissertation Title: *Formal Models and Protocols For Distributed Orchestrated Presentation.*
3. **Master of Science**, Department of Computer Science & Engineering, Indian Institute of Technology, Chennai, (formerly, Madras) - 600 036, India, July 1990.
4. **Bachelor of Engineering**, Electronics & Communication, Madurai-Kamaraj University, India, August 1986.

PROFESSIONAL EXPERIENCE

1. Associate Vice President for Research Centers and Institutes, Office of Research and Innovation (ORI), UT Dallas. From January 16, 2023 – till present.
2. Program Director, Human-Centered Computing, Information and Intelligent Systems Division, National Science Foundation. (On IPA (Intergovernmental Personnel Act)). From February 4, 2019 – till February 3, 2023.
3. Professor, Department of Computer Science, the University of Texas at Dallas, Richardson, TX, 75080, USA. From September 2010 – till present.
4. Associate Professor, Department of Computer Science, the University of Texas at Dallas, Richardson, TX 75083-0688, USA. From September 2004 – August 2010.
5. Assistant Professor, Department of Computer Science, the University of Texas at Dallas, Richardson, TX 75083-0688, USA. January 2001 - August 2004.
6. Assistant Professor, School of Computing, National University of Singapore, Singapore 117543. Period: September 1997 - June 2001.
7. Research Associate, Department of Computer Science, University of Maryland, College Park, MD 20742, USA, September 1995 - September 1997. (Post-doc Advisor: Prof. V.S. Subrahmanian).
8. Scientific Officer, Department of Computer Science & Engineering, Indian Institute of Technology, Madras - 600 036, INDIA, December 1989 - September 1996.
9. Project Officer, Project ERNET, Department of Computer Science & Engineering, Indian Institute of Technology, Madras - 600 036, INDIA, March 1987 - December 1989.
10. Quality Assurance Engineer, Indchem Electronics Ltd., Chennai, India. August 1986 – March 1987.

ADMINISTRATIVE EXPERIENCE

- Associate Vice President for Research Centers and Institutes, Office of Research and Innovation (ORI), UT Dallas. From January 16, 2023 – till present.
  - Supporting the annual evaluation of Centers and Institutes receiving support from the Office of Research and Innovation (ORI),
  - Identifying and cultivating new synergistic opportunities for Centers and Institutes at the University,
  - Facilitating research collaborations with institutions within and outside of Texas where Center and Institute synergies may emerge,
  - Working with Center and Institute leadership to cultivate federal and non-federal funding opportunities,
  - Participating in goal and vision setting for ORI as a member of the leadership team,
  - Provide mentoring to faculty for the pursuit of federal funding.
- Program Director, Human-Centered Computing (HCC), Information and Intelligent Systems (IIS) Division, National Science Foundation. (On IPA (Intergovernmental Personnel Act)). From February 2019. Apart from HCC, involved in other programs: (i) National AI (Artificial Intelligence) Institutes; (ii) Science and Technology Center (STC); (iii) Future of Work at the Human-Technology Frontier: Core Research (FW-HTF): involves multiple Directorates such as CISE (Computer Science), ENG (Engineering), EHR (Education & Human Resources), and SBE (Social, Behavioral and Economic Sciences); (iv) Secure and Trustworthy Cyberspace (SaTC): involves CISE, SBE, MPS (Mathematical & Physical Sciences), ENG, and EHR; (v) Fairness in Artificial Intelligence in Collaboration with Amazon (FAI); (vi) Machine Learning for Wireless Networking Systems (MLWiNS): involves CISE and ENG, in partnership with Intel; (vii) Multimodal Sensor Systems for Precision Health Enabled by Data Harnessing, Artificial Intelligence, and Learning (SenSE): involves CISE, ENG, and MPS; (viii) Smart and Connected Health (SCH) in partnership with NIH (National Institute of Health); (ix) Research Experience for Undergraduates (REU) Sites; (x) US-India Collaborative Research.

With approximate funding of $150 to 200 million per year, the above programs involve a fine balance of consensus-based and independent, leadership-based administration. With multiple Directorates in NSF involved, it required administrative and managerial interactions with large groups of NSF program directors as well as NSF Staff.

- *Administrative leadership positions* in very large, NSF-wide initiatives that include partnerships with multiple industries and federal agencies:
  a. Theme Lead for National AI Institute on Human-AI Interaction and Collaboration
  b. Co-Chair for FW-HTF Program, one of the NSF's Big Ideas program.
  c. Co-Lead, Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science (SCH).
  d. Member, Digital Health Research & Development (DHRD) Interagency Working Group (IWG) (formerly known as, Health Information Technology Research & Development (HITRD) IWG) https://www.nitrd.gov/coordination-areas/dhrd/).

These leadership activities include working with other federal agencies such as the National Institute of Health (NIH), the Department of Homeland Security, and industries such as Google

and Amazon. DHRD IWG comprises several NIH institutes, NSF, FDA, AHRQ, and other federal agencies dealing with health-related national-level policies and research programs.

- NSF Program Manager for the AI Institute through Cooperative Agreement at Georgia-Tech, AI-CARING, addressing the needs of people with mild cognitive impairments (MCI).

With a funding of $20 million over 5 years, this role requires periodic and fine-grained managerial coordination of the functioning of the AI Institute. The coordination includes among other things governance and governance structure of the institute as well as the deliverables agreement.

- Director, Ph.D. Studies, Department of Computer Science, the University of Texas at Dallas, 2010 – 2018.

The quality of the Ph.D. students reflects the quality of the University, in general. Managed around 150 to 200 Ph.D. students per year, with responsibilities including recruitment, funding (scholarship/ assistantships selection), curriculum, qualifying examination, and mentoring.

- Member of various Department, School of Engineering & Computer Science, and University level administrative committees.

PROFESSIONAL EXPERIENCE: Joint & Visiting Appointments

1. Dallas Veterans Affairs Medical Center, WOC (Work Without Compensation) appointment, 2010 – 2020.
2. Consultant, Texas International Education Consortium, Austin (Review Curriculum - for Prince Mohammad Bin Fahd University, Saudi Arabia; Short-term course on Smart Cities) January 2018 – January 2019.
3. Consultant, Research Competitiveness Program (RCP), American Association for the Advancement of Science (AAAS) – providing reviewer services for the King Abdulaziz City for Science and Technology (KACST) which is the national science agency of Saudi Arabia. On multiple occasions from 2010 - to 2018.
4. Consultant, Google Inc., January 2014 – June 2014.
5. Consultant, Vultinus LLC, 2014.
6. Consultant, The Ware Inc., 2011-2012.
7. Consultant, Infosys Research Labs, Bangaluru, India, 2012 – 2013.
8. International Visiting Faculty: University of Lille (France), Amrita University (India), Anna University (India).
9. Consultant, Interphase Inc., 2010 – 2011.
10. Affiliate Faculty, Department of Bioengineering, the University of Texas at Dallas, 2011 – present.
11. Faculty, Computer Engineering Program, School of Engineering & Computer Science, the University of Texas at Dallas, 2002 - present.
12. Faculty, Telecom Engineering Program, School of Engineering & Computer Science, the University of Texas at Dallas, 2002 - present.
13. Faculty, Institute for Interactive Arts & Engineering, the University of Texas at Dallas, 2002 -2010.
14. Consultant, NEC USA C&C Research Labs, San Jose, CA, July – December 2001.
15. Visiting Assistant Professor, Department of Computer Science, the University of Texas at Dallas, USA, August - December 2000.

16. United Nations Fellow, Department of Electrical Engineering & Computer Science (EECS), University of California, Berkeley, USA, Fall 1989.

PROFESSIONAL RECOGNITION & HONORS

1. Edito-in-Chief, IEEE MultiMedia, 2023-2025.
2. Invited Exhibitor, Arc of Science: From Research to Results, NSF – Capitol Hill Event (invited demonstrations to Congressmen and Senators), February 2017. https://www.nsf.gov/news/news_summ.jsp?cntn_id=191047
3. Best Associate Editor 2015, Springer's Multimedia Systems Journal.
4. ACM Distinguished Scientist, 2011.
5. Member of the Executive Council of the ACM Special Interest Group on Multimedia (SIGMM), 2008-till present.
6. Member, Steering Committee, IEEE International Conference on Health Informatics (ICHI), 2015 – till present.
7. Co-Chair of IEEE Technical Committee on Multimedia Computing (TCMC) Special Interest Group on Video Analytics (SIGVA), 2010-till present.
8. Member, Steering Committee, ACM Information Hiding & Multimedia and Security (IH & MMSec), 2012 – till present.
9. US National Science Foundation (NSF) CAREER Award, 2003. Funding: $400,000 from September 1, 2003 - August 31, 2010.
10. 2007 School of Engineering Outstanding Service Award for Computer Science Department, 2007: $25,000 grant.
11. Anston Clark Foundation Grant (Jointly awarded to B. Prabhakaran and R.N. Uma), "Scheduling delivery of multimedia information", Grant amount $48,000; 2002.

Press Releases

- "UT Dallas researchers are using virtual reality to help amputees with phantom limb pain", https://www.dallasnews.com/news/public-health/2022/12/04/ut-dallas-researchers-are-using-virtual-reality-to-help-amputees-with-phantom-limb-pain/, December 4, 2022.
- "Using Virtual Reality to Relieve Amputees' Phantom Limb Pain", https://www.nbcdfw.com/news/health/using-virtual-reality-to-relieve-phantom-limb-pain/3138491/, December 1, 2022.
- "ARL extramural research provides novel technique to make advanced driver-assistance systems (ADAS) nearly tamperproof", Press Release from Army Research Laboratory, July 2018.
- "Mixed Reality for Managing Phantom Pain", ARO-in-Review, 2017 (US Army Research Office, Yearly Publication).
- On Veterans' Day of 2015, major news media all over the USA reported on the telerehabilitation platform developed using the multi-modal, 3D immersive platform developed at the University of Texas at Dallas. First reported by the newspaper from Austin, Texas, the following front-page article discussed the salient features of the system and its benefits for veterans.
  https://www.mystatesman.com/news/state--regional-govt--politics/texas-veterans-first-test-new-cyber-rehab-technology/uFWhnw4mfmhfc4BZJLZdzN/
  This AP news was later picked up by major newspapers all over the USA. Radio shows also carried interviews with PIs B. Prabhakaran and Thiru Annaswamy.

NSF widely publicized the interview with the Dallas Veterans Affairs Hospital physician using our telerehabilitation system.
https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=135346&WT.mc_id=USNSF_1

- Internet radio "Rivet" interview with Prabhakaran: http://www.rivetnewsradio.com/share/276467
- John Edwards, "Touching Research: Haptics and Signal Processing [Special Reports]". IEEE Signal Process. Mag. 31(2): 11-14 (2014). This article carries an interview with Prabhakaran on the role of haptic devices in physical medicine and therapy.
- Dallas Morning News, February 13, 2006, carried an article on Prabhakaran's Army Research Office grant on secure usage of 3D data.

Research Activities

I. Product License, Provisional Patent

1. "Opti-Speech", Technology Licensed to Vulintus Inc., by the University of Texas, Dallas, 2011. https://www.vulintus.com/optispeech
   Inventors: B. Prabhakaran, Thomas Campbell, Eric Farrar, William Katz, Robert Rennaker, Jennell Vick, and Jun Wang
   Opti-Speech is an interactive system that integrates tongue, lip, and jaw motion capture from 3D Electromagnetic Articulography (EMA) systems to animate a realistic 3D avatar. Supported by Small-Business Innovation Research (SBIR) grant 2R44DC013467 from the National Institute on Deafness and Other Communication Disorders.
2. Annaswamy, T.M., Prabhakaran, B., and Chung, Y.Y., "High Fidelity Mixed Reality System for Managing Phantom Pain", U.S. Provisional Patent Application No.: 63/325,410, Mar 30, 2022.
3. Annaswamy, T.M., Prabhakaran, B., Desai, K., and Khargoankar, N.A. "VIRTEPEX: Virtual Remote Tele-Physical Examination System", U.S. Provisional Patent Application No.: 63/351,671, June 13, 2022.

II. Research Publications

A. Refereed Journals

J1. "Optimizing Camera Setup for In-Home First-person Rendering Mixed Reality Gaming System"Y.Y. Chung and B. Prabhakaran, IEEE Transactions on Games, DOI: 10.1109/TG.2023.3277399

J2. "Personalized 3D exergames for in-home rehabilitation after stroke: a pilot study", Kevin Desai, B. Prabhakaran, Nneka Ifejika, Thiru M Annaswamy, Disability and Rehabilitation: Assistive Technology, (Taylor & Francis Publishers), 2023 Jul;18(5):704-713. DOI: 10.1080/17483107.2021.1913518. Epub 2021 Apr 24. PMID: 33899662.

J3. "Bias Analysis in Healthcare Time-Series (BAHT) Decision Support Systems from Meta-Data", S. Dakshit, N.Khargonkar and B. Prabhakaran, Journal of Healthcare Informatics, 7, 225–253, 2023, https://doi.org/10.1007/s41666-023-00133-6.

J4. "A Novel Mixed Reality System to Manage Phantom Pain In-home: Results of a Pilot Clinical Trial", D. Annapureddy, T.M. Annaswamy, G. Raval, Y.Y. Chung, and B. Prabhakaran, Frontiers in Pain Research, Volume 4, 2023, https://doi.org/10.3389/fpain.2023.1183954

J5. "Clinical Feasibility and Preliminary Outcomes of a Novel Mixed Reality System to Manage Phantom Pain: A Pilot Study", T.M. Annaswamy; K. Bahirat, G. Raval, Y.Y

Chung, T. Pham, and B. Prabhakaran, Pilot and Feasibility Studies, 8, 232 (2022), Springer. https://doi.org/10.1186/s40814-022-01187-w

J6. "Augmented Reality and Mixed Reality Measurement Under Different Environments: A Survey on Head-Mounted Devices", H-J. Guo, J.Z. Bakdash, L.R. Marusich, and B. Prabhakaran, IEEE Transactions on Instrumentation & Measurement, Vol. 71, 2022. DOI: 10.1109/TIM.2022.3218303

J7. "Comparison of In-Person and Synchronous Remote Musculoskeletal Exam using Augmented Reality and Haptics: A Pilot Study", T. Annaswamy, C. Wolfe, T. Lin, K. Chakka, R. Wu, A. Borresen, and B. Prabhakaran, PM&R: The Journal of Injury, Function and Rehabilitation, American Academy of Physical Medicine and Rehabilitation, August 2022, https://doi.org/10.1002/pmrj.12883.

J8. "An Augmented Virtuality System Facilitating Learning Through Nature Walk", S. Vellingiri, R. P. McMahan, V. Johnson and B. Prabhakaran, Multimedia Tools and Applications, Springer, 2022, https://doi.org/10.1007/s11042-022-13379-w.

J9. "Generating Healthcare Time Series Data for Improving Diagnostic Accuracy of Deep Neural Networks," B. M. Maweu, R. Shamsuddin, S. Dakshit and B. Prabhakaran, IEEE Transactions on Instrumentation and Measurement, vol. 70, pp. 1-15, 2021, Art no. 2508715, https://doi.org/10.1109/TIM.2021.3077049

J10. "CEFEs: A CNN Explainable Framework for ECG Signals", Barbara Maweu, Sagnik Dakshit, R. Shamsuddin, and B. Prabhakaran, Artificial Intelligence in Medicine, Volume 115 (102509), May 2021. https://doi.org/10.1016/j.artmed.2021.102059

J11. "Using Biometric Technology for Telehealth and Telerehabilitation", Thiru M Annaswamy, Gaurav N Pradhan, Keerthana Chakka, Ninad Khargonkar, Aleks Borresen, B. Prabhakaran, Physical Medicine and Rehabilitation Clinics (Elsevier Publications), 32 (2), 437-449, May 2021. https://www.sciencedirect.com/science/article/pii/S104796512030111X.

J12. "A wearable sensor vest for social humanoid robots with GPGPU, IoT, and modular software architecture", Mohsen Jafarzadeh, Stephen Brooks, Shimeng Yu, Balakrishnan Prabhakaran, and Yonas Tadesse, Robotics and Autonomous Systems (Elsevier Publications), Vol. 139, (103536), May 2021. https://doi.org/10.1016/j.robot.2020.103536

J13. "SCeVE: A Component-based Framework to Author Mixed Reality Tours", S. Vellingiri, R.P. McMahan, and B. Prabhakaran, ACM Transactions on Multimedia Computing, Communication, and Application, 16(2): 40:1-40:23 (2020).

J14. "Improving the Security of Visual Challenges", Junia Valente, Kanchan Bahirat, Kelly Venechanos, Alvaro A. Cardenas, B. Prabhakaran, ACM Transactions on Cyberphysical Systems (TCPS) Volume 3, Issue 3, Article 34:1-34:26, October 2019.

J15. "Usability of an Immersive Augmented Reality Based Telerehabilitation System with Haptics (ARTESH) for Synchronous Remote Musculoskeletal Examination", A. Borresen, C. Wolfe, C-K Lin, Y. Tian, S. Raghuraman, K. Nahrstedt, B. Prabhakaran, Thiru Annaswamy, International Journal of Telerehabilitation, Volume 11, Number 1, 2019.

J16. "Designing and Evaluating A Mesh Simplification Algorithm for Virtual Reality", K. Bahirat, C. Lai, Ryan P. McMahan, and B. Prabhakaran, *ACM Transactions on Multimedia Computing Communications and Applications (TOMM)*, Volume 14, Issue 3s, Article 63, August 2018.

J17. "Real-time, Curvature-Sensitive Surface Simplification Using Depth Images", K. Bahirat, S. Raghuraman, and B. Prabhakaran, *IEEE Transactions on Multimedia, 20(6): 1489-1498 (2018)*.

J18. “Association Rule Mining in Multiple, Multidimensional Time Series Medical Data”, G.N. Pradhan and B. Prabhakaran, Journal of Healthcare Informatics Research (Springer), Volume 1, Issue 1, June 2017, pp. 92-118.

J19. “Motion Capture with Ellipsoidal Skeleton using Multiple Depth Cameras”, Liang Shuai, Chao Li, Xiaohu Guo, Balakrishnan Prabhakaran, Jinxiang Chai, IEEE Transactions on Visualization and Computer Graphics, Volume: 23, Issue: 2, Feb. 2017, pp. 1085-1098.

J20. "Predictive modeling of respiratory tumor motion for real-time prediction of baseline shifts", A. Balasubramanian, R. Shamsuddin, B. Prabhakaran, and A. Sawant, Physics in Medicine and Biology, IOP Science, Volume 62, Number 5, February 2017.

J21. “Discovering Multidimensional Motifs in Physiological Signals for Personalized Healthcare”, A. Balasubramanian, J. Wang, and B. Prabhakaran, IEEE Journal of Selected Topics in Signal Processing, Volume 10, Number 5, August 2016, pp. 832-841.

J22. “Scene Based Fingerprinting Method for Traitor Tracing”, S. Mehta, R. Nallusamy, and B. Prabhakaran, Multimedia Systems Journal (Springer Publishers), Volume 22, Issue 2, pp. 197–211, March 2016.

J23. “Stable Haptic Interaction Based on Adaptive Hierarchical Shape Matching”, Yuan Tian, Yin Yang, Xiaohu Guo, Balakrishnan Prabhakaran, Computational Visual Media, Vol. 1, No. 3, pp. 253-265, 2015.

J24. “Loss Aware Sample Packetization Strategy for Improvement of Body Sensor Data Analysis”, Ming Li, Yu Cao, and B. Prabhakaran, Journal of Communications (JCM), Vol. 10, No. 11, November 2015.

J25. "Distributed Haptic Interactions with Physically-Based 3D Deformable Models over Lossy Networks", Z. Tang, Y. Yang, X. Guo, and B. Prabhakaran, IEEE Transactions on Haptics, Vol. 6, No. 3, 2013, pp. 417-428.

J26. "Point-Based Manifold Harmonics," Yang Liu, Balakrishnan Prabhakaran, Xiaohu Guo, in IEEE Transactions on Visualization and Computer Graphics, Vol. 18, No. 10, 2012, pp. 1693-1703.

J27. “Analyzing and Visualizing Jump Performance Using Wireless Body Sensors”, G.N. Pradhan and B. Prabhakaran, *ACM Transactions on Embedded Computing Systems*, Volume 11, Issue S2, Article No. 47, August 2012.

J28. "Spectral Watermarking for Parameterized Surfaces," Yang Liu, Balakrishnan Prabhakaran, Xiaohu Guo, in IEEE Transactions on Information Forensics and Security, Vol. 7, No. 5, 2012, pp. 1459-1471.

J29. “Video Human Motion Recognition Using Knowledge-based Hybrid Method Based On Hidden Markov Model”, M.H. Suk, A. Ramadass, Y. Chin, and B. Prabhakaran, *ACM Transactions on Intelligent Systems and Technology*, Volume 3 Issue 3, Article No. 42, May 2012.

J30. “Database Inference Controller for 3D Motion Capture Database”, R. Natarajan, B. Thuraisingham, B. Prabhakaran, and L. Khan, International Journal of Information Security and Privacy, IGI Global Publishers, 2011.

J31. “Motion Fault Detection and Isolation in Body Sensor Networks, Duk-Jin Kim, B. Prabhakaran, *Pervasive and Mobile Computing*, (Elsevier Publishers), Volume 7, Issue 6, Pages 727-745, December 2011. (Earlier version appeared in Proceedings of 9th IEEE Pervasive Computing and Communication (PerCom) Conference, March 2011).

J32. “Analyzing Motoric and Physiological Data in Describing Upper Extremity Movement in the Aged”, G.N. Pradhan, N. Engineer, M. Nadin, and B. Prabhakaran, *Springer*

International Journal on Universal Access in the Information Society (UAIS), Volume 10, Number 2, Pages 139-150, June 2011.

J33. "Knowledge Discovery from 3D Human Motion Streams through Semantic Dimensional Reduction", Yohan Jin and B. Prabhakaran, *The ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMCCAP)*, Volume 7 Issue 2, Article 9, February 2011.

J34. "Receiver-Based Loss Tolerance Method for 3D Progressive Streaming", Ziying Tang, Xiaohu Guo, Balakrishnan Prabhakaran, *International Journal of Multimedia Tools and Applications*, Vol. 51, No. 2, pp. 779-799, January 2011 (Published Online October 2010).

J35. "Dirichlet Harmonic Shape Compression with Feature Preservation for Parameterized Surfaces", Yang Liu, Balakrishnan Prabhakaran, Xiaohu Guo, *Computer Graphics Forum* (PG'10 special issue), Vol. 29, No. 7, pp. 2039-2048, September 2010.

J36. "On Supporting Reliable QoS in Multi-hop Multi-rate Mobile Ad Hoc Networks", Ming Li, B. Prabhakaran, *ACM/Springer/URSI Wireless Networks (WINET)*, Vol. 16, No. 3, pp. 813-827, April 2010.

J37. "Dynamic Priority Re-allocation Scheme for Quality of Service in IEEE 802.11e Wireless Networks", Ming Li, Hua Zhu, B. Prabhakaran, *ACM/Springer/URSI Wireless Networks* (WINET), Vol. 16, No. 3, pp. 759 - 774, April 2010.

J38. "A Body Sensor Network with Electromyogram and Inertial Sensors: Multi-modal Interpretation of Muscular Activities," H. Ghasemzadeh, R. Jafari, and B. Prabhakaran, IEEE Transactions on Information Technology in Biomedicine, Vol. 14, No. 2, pp. 198-207, March 2010.

J39. "Knowledge-Based Image Annotation Refinement", Yohan Jin, Latifur Khan, B.Prabhakaran, *Journal of Signal Processing Systems*, Springer Publishers, (On-line First, September 2009) Volume 58, Number 3, Pages 387-406, March 2010.

J40. "Blind Robust Watermarking of 3-D Motion Data", P. Agarwal, and B. Prabhakaran, *The ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMCCAP)*, Vol. 6(1), Article 2, 2:1-2:32, Feb. 2010.

J41. "Architecture and Protocol Design for A Pervasive Robot Swarm Communication Networks" Ming Li, John Harris, Min Chen, Shiwen Mao, Yang Xiao, Walter Read, B. Prabhakaran, *Wireless Communications and Mobile Computing*, John Wiley & Sons Publishers, October 2009 (Online First).

J42. "Indexing 3D Human Motion Repositories for Content-based Retrieval", G. N. Pradhan and B. Prabhakaran, *IEEE Transactions on Information Technology in BioMedicine*, Vol.. 13, No. 5, pp. 802-809, September 2009.

J43. "On Supporting High-Quality 3D Geometry Multicasting over IEEE 802.11 Wireless LANs", Hui Li, Ming Li, B. Prabhakaran, *IEEE Transactions on Computers*, Vol. 58, No. 4, pp. 558-571, April 2009.

J44. "Blind Robust Watermarking of Point Sampled Geometry", P. Agarwal, and B. Prabhakaran, *IEEE Transactions on Information Forensics and Security*, Vol 4, No. 1. Pp. 36-48, March 2009.

J45. "Reliable Transmission of Audio Streams in Lossy Channels Using Application Level Data Hiding", Parag Agarwal and B. Prabhakaran, *Journal of Multimedia*, Academy Publisher, Vol. 3, Issue 5, pp. 1-8, Dec. 2008.

J46. "Hand Gesture-based Computing for Hearing and Speech Impaired", Gaurav N. Pradhan, Chuanjun Li, B. Prabhakaran, *IEEE MultiMedia Magazine*, Vol. 15, No. 2, pp. 20-27,

April-June 2008.

J47. "Partial Fuzzy Query Resolution for Animation Authoring", Phani S Kotharu and B. Prabhakaran, *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMCCAP)*, Vol.4, Issue 2, Article 4, January 2008.

J48. "Minimizing Collision Pairs Searched in Interactive Animation Authoring", Parag Agarwal, Srinivas Rajagopalan, and B. Prabhakaran, *The Visual Computer*, Volume 24, Number 5, pp. 347-359, May 2008.

J49. "Motion Stream Segmentation and Recognition by Classification", Chuanjun Li, P. R. Kulkarni, and B. Prabhakaran, *International Journal of Multimedia Tools and Applications (MTAP)*, Springer, Vol.35(1), pp. 55-70, October 2007.

J50. "Segmentation and Recognition of Motion Streams by Similarity Search", Chuanjun Li, S. Q. Zheng and B. Prabhakaran, *ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMCCAP)*, Vol. 3(3), Article 16, August 2007.

J51. "Animation Toolkit Based on Database Approach for Reusing Motions and Models", Akanksha, Z. Huang, B. Prabhakaran, and C.R. Ruiz, *Multimedia Tools and Applications*, Springer, Volume 32, Number 3, pp. 293-327, March 2007.

J52. "Middleware for Streaming 3D Progressive Meshes over Lossy Networks", Hui Li, Ming Li, B. Prabhakaran, *ACM Transactions on Multimedia Computing, Communications, and Applications* (TOMCCAP), Vol. 2, Issue 4, pp. 282 – 317, November 2006.

J53. "Indexing of Motion Capture Data for Efficient and Fast Similarity Search", Chuanjun Li and B. Prabhakaran, *Journal of Computers (JCP)*, Academy Publisher, Vol. 1(3), pp. 35-42, June 2006.

J54. "End-to-end QoS Framework for Heterogeneous Wired-cum-Wireless Networks", Ming Li, Hua Zhu, Imrich Chlamtac, B. Prabhakaran, *ACM/Springer Wireless Networks (WINET)*, Volume 12, Number 4, pp. 439-450, August 2006.

J55. "Real-time Classification of Variable Length Multi-attribute Motion Data", Chuanjun Li, Latifur Khan, and B. Prabhakaran, *Knowledge and Information Systems: An International Journal (KAIS)*, Springer, Vol.10, No. 2, pp. 163-183, August 2006.

J56. "MAC Layer Admission Control and Priority Re-allocation for Handling QoS Guarantees in Non-cooperative Wireless LANs", Ming Li, and B. Prabhakaran, *ACM/Springer Mobile Networks and Applications (MONET)*, Special issue on Non-cooperative Computing in Wireless Networks, Vol. 10, No. 6, pp. 947-959, December 2005.

J57. "Flexible Disk Scheduling Strategies for Multimedia Presentation Servers", S. Emilda, L. Jacob, O. Daescu, and B. Prabhakaran, *Multimedia Tools and Applications, Kluwer Academic Publishers*, Volume 26, Number 1, pp. 81-99, February 2005.

J58. " Survey of Quality of Service in IEEE 802.11 Networks", Hua Zhu, Ming Li, Imrich Chlamtac, and B. Prabhakaran, *IEEE Wireless Communication*, Volume 11, Issue 4, August 2004, pp. 6 - 14.

J59. "Application-layer Protocol for Collaborative Multimedia Presentations", E. Hwang and B. Prabhakaran, *Multimedia Tools and Applications Journal*, Kluwer Academic Publishers, Volume 21, Issue 2, pp. 103-123, November 2003.

J60. "Unified Read Requests", E. Hwang and B. Prabhakaran, *Multimedia Tools and Applications Journal*, Kluwer Academic Publishers, Volume 20, Number 3, pp. 203-224, August 2003.

J61. "Experiences With an Object-level Scalable Web Framework", B. Prabhakaran, Yuguang Tu, and Yin Wu, *Journal of Network and Computer Applications*, Academic Press, Vol.

26, Issue 2, pp. 163-196, April 2003.

J62. "Visualizing Animation Databases", Akanksha, Huang Z., Prabhakaran B. and Ruiz, Jr. C. R., *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 13, No. 1, pp. 1-25, February 2003.

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2. Edited Book: *Mobile Computing Environments for Multimedia Systems*, Kluwer Academic Publishers. Editors: B. Prabhakaran and M. Kavehrad.

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3. Author of a chapter on *Multimedia Synchronization* in *Design and Applications of Multimedia Systems*, Kluwer Academic Publishers. Editor : Prof Borko Furht.
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5. Author of a chapter on *Temporal Models and Their Applications in Multimedia Information Retrieval* in the edited book *Design and Management of Multimedia Information Systems: Opportunities and Challenges*, Idea Group Publishing, Hershey, USA, 2001.
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81. “PicoLife: An Engine on Mobile Phones for Video-based Gesture Recognition and 3D Gaming”, M. Mariappan, X. Guo, and B. Prabhakaran, 2011 IEEE International Symposium on Multimedia (ISM 2011), Dec. 2011.
82. "Analysis of human motions with arm constraint," Duk-Jin Kim; B. Prabhakaran, Engineering in Medicine and Biology Society, EMBC, 2011 Annual International Conference of the IEEE, vol., no., pp.6047-6050, Aug. 30 - Sept. 3, 2011
83. “Motion Fault Detection and Isolation in Body Sensor Networks”, Duk-Jin Kim and B. Prabhakaran, Proceedings of 9th IEEE Pervasive Computing and Communication (PerCom) Conference, March 2011, Seattle, USA. (Announced acceptance rate: 11%; Invited for Special Issue of the Elsevier’s Journal of Pervasive and Mobile Computing (PMC)).
84. "Video Human Motion Recognition Using Knowledge-Based Hybrid Method," Myunghoon Suk, Ashok Ramadass, Yohan Jin, B. Prabhakaran, 2010 IEEE International Symposium on Multimedia (ISM 2010), pp.65-72, 13-15 Dec. 2010
85. "Virtual Rehabilitation System," Ziying Tang, Xiaohu Guo, Balakrishnan Prabhakaran, Proceedings of ACM International Health Informatics Symposium (IHI 2010), pp. 833 - 836, Arlington, VA, November 2010.
86. “Clustering of Human Motions Based on Feature-level Fusion of Multiple Body Sensor Data”, G.N. Pradhan and B. Prabhakaran, Proceedings of ACM International Health

Informatics Symposium (IHI 2010), pp. 66-75, Arlington, VA, November 2010.

87. "A Multimodal Virtual Environment for Interacting with 3D Deformable Models," Ziying Tang, Anant Patel, Xiaohu Guo, Balakrishnan Prabhakaran, Proceedings of ACM Multimedia Conference (MM 2010), pp. 1303 - 1306, Firenze, Italy, October 2010.
88. "On Supporting Collaborative Haptic Interaction with Physically-Based 3D Deformations," Ziying Tang, Yin Yang, Xiaohu Guo, Balakrishnan Prabhakaran, Proceedings of IEEE International Symposium on Haptic Audio-Visual Environments and Games (HAVE 2010), pp. 19 - 24, Phoenix, Arizona, October 2010.
89. "Blind Invisible Watermarking for 3D Meshes with Textures", Yang Liu, Balakrishnan Prabhakaran, Xiaohu Guo, Proceedings of IEEE International Conference on Image Processing (ICIP), pp. 3689-3692, Hong Kong, September 2010.
90. "Predicting Poor Language Scores At Age 6 From Combinations Of Scores At Ages 3 And 4", A. Balasubramanian, C. Dollaghan, T. Campbell, and B. Prabhakaran, Symposium on Research in Child Language Disorders, Madison, USA, June 2010. (Poster presentation).
91. "Multi-modal Sensing of Human Interaction", B. Prabhakaran, Information Systems and Computing Technology Network (ISaCTN) Raytheon Symposium, April 2010.
92. "Multimodal Analysis of Body Sensor Network Data Streams for Real-Time Healthcare", Manoj K. Garg, D.-J. Kim, D. Turaga, B. Prabhakaran, Proceedings of 11th ACM SIGMM International Conference on Multimedia Information Retrieval, pp. 469-478, March 29-31, 2010.
93. "Feature Extraction Method For Video-Based Human Action Recognitions: Extended Optical Flow Algorithm", Ashok Ramadass, Myunghoon Suk, and B. Prabhakaran, Proceedings of 2010 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2010), March 2010, Dallas, Texas.
94. "Streaming 3D Shape Deformations in Collaborative Virtual Environment"., Ziying Tang, Guodong Rong, Xiaohu Guo, Balakrishnan Prabhakaran, Proceedings of IEEE Virtual Reality Conference (VR 2010), Waltham, Massachusetts, March 2010.
95. "A Comprehensive Approach for Streaming 3D Progressive Meshes", Ziying Tang, Xiaohu Guo, Balakrishnan Prabhakaran, in Proceedings of IEEE International Symposium on Multimedia (ISM 2009), pp. 263-268, ISBN 978-0-7695-3890-7, San Diego, California, December 2009.
96. "Multimedia Aspects in Pervasive Healthcare", Duk-Jin Kim and B. Prabhakaran, Proceeding of the 17th ACM International Conference on Multimedia (Vancouver, British Columbia, Canada, October 2009). MM '09. ACM, New York, NY, pp. 921-922 (Tutorial Presentation).
97. "Association Rule Mining in Multiple, Multidimensional Time Series Data", Gaurav N. Pradhan, B. Prabhakaran, In Proceedings of the 2009 IEEE International Conference on Multimedia and Expo (New York, NY, USA, July 2009), pp. 1716-1719, IEEE Press, Piscataway, NJ.
98. "Evaluating the Effect of Local Variations in Visually-Similar Motions on the Clustering of Body Sensor Features", G.N. Pradhan and B. Prabhakaran, Body Sensor Networks 2009 (BSN 2009), Berkeley, CA, June 2009.
99. "Analyzing Coordination of Upper and Lower Extremities in Human Gait," D. Kim, G. Pradhan, and B. Prabhakaran, Proceedings of the 4th International Conference on Body Area Networks (BodyNets2009), LA, CA, April 2009.
100. "Storage, retrieval, and communication of body sensor network data," G.N. Pradhan and

B. Prabhakaran Proceeding of the 16th ACM International Conference on Multimedia (Vancouver, British Columbia, Canada, October 26 - 31, 2008). MM '08. ACM, New York, NY, pp. 1161-1162 (Tutorial Presentation).

101. "Tamper Proofing Mechanisms for Motion Capture Data", Parag Agarwal, and B.Prabhakaran, Proceedings of the 10th ACM Workshop on Multimedia and Security (Oxford, United Kingdom), pp. 91-100, September 2008.
102. "A Robust Spectral Approach for Blind Watermarking of Manifold Surfaces", Yang Liu, B. Prabhakaran, Xiaohu Guo, Proceedings of the 10th ACM Workshop on Multimedia and Security (Oxford, United Kingdom), pp. 43-52, September 2008.
103. "Fault Detection Framework for Video Surveillance Systems", J. Zhou, S. Ntafos, and B. Prabhakaran, Proceedings of IEEE Fifth International Conference on Advanced Video and Signal Based Surveillance, September 2008. pp. 219-226, AVSS '08.
104. "Analyzing motoric and physiological data in describing upper extremity movement in the aged", Gaurav N. Pradhan, Navzer Engineer, Mihai Nadin, B. Prabhakaran, International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2008), vol. 282. ACM, July 16-19, 2008, Athens, Greece. **(Among Top Papers Selected for a Journal Special Issue).**
105. "The Randomized. Approximating Graph Algorithm for Image Annotation Refinement Problem," Yohan Jin, Kibum Jin, Latifur Khan, B. Prabhakaran, IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops, (CVPRW '08) July 2008. **(Best Paper Award).**
106. "Loss Tolerance Scheme for 3D Progressive Meshes Streaming over Networks," Hui Li, Ziying Tang, Xiaohu Guo, B. Prabhakaran, Proceedings of IEEE International Conference on Multimedia & Expo (ICME 2008), pp. 501 - 504, Hannover, Germany, June 2008.
107. "Context Assistance in Media Interpretations", Yohan Jin, Balakrishnan Prabhakaran, Invited Position Statement, Dagstuhl Seminar on Contextual and Social Media Understanding and Usage, Dagstuhl Castle, Germany, June 16-21, 2008.
108. "Body Sensor Networks to Evaluate Standing Balance: Interpreting Muscular Activities Based on Inertial Sensors", R. Ramachandran, L. Ramanna, H. Ghasemzadeh, G.N. Pradhan, R. Jafari, B. Prabhakaran, The 2nd International Workshop on Systems and Networking Support for Healthcare and Assisted Living Environments (HealthNet), June 2008, Breckenridge, CO.
109. "QOAR: Adaptive QoS Scheme in Multi-rate Wireless LANs", Ming Li, Yang Xiao, Hua Zhu, Imrich Chlamtac, B. Prabhakaran, Proceedings of IEEE ICC 2008, Beijing, China, pp. 2900-2904, May 19-23, 2008.
110. "Adaptive Frame Concatenation Mechanism for QoS in Multi-rate Wireless Ad Hoc Networks", Ming Li, Hua Zhu, Yang Xiao, Imrich Chlamtac, B. Prabhakaran, Proceedings of IEEE INFOCOM 2008, pp.1112-1120, Phoenix, Arizona, April 2008.
111. "Analysis of human performance using physiological data streams", G. N. Pradhan, B. Prabhakaran, Third International Conference on Body Area Networks 2008, pp. 1-4, March 13-15, 2008, Tempe, Arizona.
112. "Semantic Quantization of 3D Human Motion Capture Data Through Spatial-Temporal Feature Extraction", Yohan Jin and B.Prabhakaran, In Proc. Of International Multimedia Modeling Conference (MMM08'), pp 318-328. Kyoto, Japan Jan. 9-11, 2008.
113. "Content-Based Querying and Searching for 3D Human Motions", Manoj Pawar, Gaurav N. Pradhan, Kang Zhang, B. Prabhakaran, Proceedings of ACM Multimedia Modeling

Conference (MMM) 2008, pp. 446-455, Kyoto, Japan, January 9-11, 2008.

114. "An Integrated Mobile Wireless System for Capturing Physiological Data Streams during a Cognitive-motor Task: Applications for Aging", G. N. Pradhan, N. Engineer, M. Nadin, B. Prabhakaran, 2007 IEEE Dallas Engineering in Medicine and Biology Workshop, pp. 67-70, November 2007.
115. "Design and Development of A Secure Real-time Monitoring, Control, and Coordination Systems for Intelligent Robot Swarms", Ming Li, Anthony Alvarez, Francesco De Pellegrini, Imrich Chlamtac, B. Prabhakaran, ACM/IEEE ROBOCOMM 2007, October 2007.
116. "Robust blind Watermarking Mechanism for Point Sampled Geometry", P. Agarwal, B. Prabhakaran, Proceedings of ACM Multimedia and Security Workshop 2007 (MM&Sec 2007), pp. 175-186, September 2007, Dallas, TX, USA.
117. "Progressive Compression Invariant Semi-fragile Watermarks for 3D Meshes", Puneet Maheshwari, Parag Agarwal, B. Prabhakaran, Proceedings of ACM Multimedia and Security Workshop 2007 (MM&Sec 2007), pp. 245-250, September 2007, Dallas, TX, USA.
118. "On Supporting High-Quality 3D Geometry Multicasting over IEEE 802.11 Wireless LANs", Hui Li, Ming Li, B. Prabhakaran, IEEE BROADNETS, September 2007.
119. "Integration of Motion Capture and EMG data for Classifying the Human Motions", Gaurav N. Pradhan, Navzer Engineer, Mihai Nadin, Balakrishnan Prabhakaran, Proceedings of International Workshop on Ambient Intelligence, Media, and Sensing (AIMS) 2007, (held along with International Conference on Data Engineering (ICDE), April 20, 2007, Istanbul, Turkey.
120. "Data Hiding based Compression Mechanism for 3D Models", Hui Li, Parag Agarwal, Balakrishnan Prabhakaran, IEEE Data Compression Conference 2007 (DCC 2007).
121. "Shear Invariant 3D Model Retrieval", Sagar Naik and B. Prabhakaran Proceedings of International Workshop on Vision Geometry XV, edited by Longin Jan Latecki, David M. Mount, Angela Y. Wu, Proceedings of SPIE-IS&T Electronic Imaging, SPIE Vol. 6499, 64990A, January 2007.
122. "Hierarchical Indexing Structure for 3D Human Motions", Gaurav N. Pradhan, Chuanjun Li, Balakrishnan Prabhakaran, Proceedings of International Conference on Multimedia Modeling Conference (MMM) 2007, pg. 386-396, January 9-12, Singapore.
123. "Tamper Proofing of 3D motion Data Streams", Parag Agarwal, Balakrishnan Prabhakaran, Proceedings of 13th International Multimedia Modelling Conference 2007 (MMM 2007), Singapore, LNCS 4351 (Part 1) pp. 731-740, January 2007.
124. "Robust Blind Watermarking Mechanism for Motion Data Streams", Parag Agarwal, Ketaki Adi, Balakrishnan Prabhakaran, Proceedings of ACM Multimedia and Security Workshop, Geneva, Switzerland, September 26-27, 2006, pp. 230 - 235.
125. "SVD-Based Tamper Proofing Of Multi-Attribute Motion Data", Parag Agarwal, Ketaki Adi, Balakrishnan Prabhakaran, Proc. of The 12th International Conference on Distributed Multimedia Systems (DMS), Grand Canyon, August 2006, pp. 46-52.
126. "Uncertainty: An Extra Layer of Security for Unauthorized Traffic based Web Services", Parag Agarwal, Balakrishnan Prabhakaran, Bhavani Thuraisingham, Proc. of The 12th International Conference on Distributed Multimedia Systems (DMS), Grand Canyon, August 2006, pp. 52 - 58
127. "Motion Stream Segmentation and Recognition by Classification", Chuanjun Li, P. R.

Kulkarni, and B. Prabhakaran, *Proceedings of the 31st IEEE International Conference on Acoustics, Speech, and Signal Processing* (ICASSP 2006), pp. V-537- V-540, May 2006.

128. "A Novel Indexing Approach for Efficient and Fast Similarity Search of Captured Motions", Chuanjun Li and B. Prabhakaran, *Proceedings of the 10th Pacific-Asia Conference on Knowledge Discovery and Data Mining* (PAKDD 2006), pp. 689-698, April 2006.
129. "On Supporting Reliable QoS in Multi-hop Multi-rate Mobile Ad Hoc Networks", Ming Li, B. Prabhakaran, *Proceedings of the First IEEE International Workshop on Next Generation Wireless Networks* (WoNGeN'05), Goa, India, Dec. 18-21, 2005. (**Best Student Paper Award)**
130. "A Similarity Measure for Motion Stream Segmentation and Recognition", Chuanjun Li and B. Prabhakaran, *Proceedings of the Sixth International Workshop on Multimedia Data Mining* (MDM/KDD), Chicago, IL USA, pp. 89-94, August 2005.
131. "Similarity Measure for Multi-Attribute Data", Chuanjun Li, B. Prabhakaran, and S.Q. Zheng, *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2005)*, Philadelphia, PA USA, pp. 1149 - 1152, March 2005.
132. "Indexing of Variable Length Multi-Attribute Motion Data", Chuanjun Li, Gaurav Pradhan, S.Q. Zheng and B. Prabhakaran, *Proceedings of the Second ACM International Workshop on Multimedia Databases (ACM -MMDB 2004)*, Washington D.C., USA, pp. 75-84, November 8-13, 2004.
133. "Accessing Documents via Audio: An Extensible Transcoder for HTML to VoiceXML Conversion", Narayan Annamalai, Gopal Gupta, and B. Prabhakaran, Proceedings of 9th International Conference on Computers Helping People with Special Needs (ICCHP 2004), (Also in Lecture Notes in Computer Science LNCS 3118), pp. 339–346, 2004.
134. "Segmentation and Recognition of Multi-Attribute Motion Sequences", Chuanjun Li, Peng Zhai, S. Q. Zheng and B. Prabhakaran, *Proceedings of the ACM Multimedia Conference (ACM Multimedia 2004)*, New York, NY USA, pp. 836-843, October 10-16, 2004.
135. "End-to-end Framework for QoS Guarantee in Heterogeneous Wired-cum-Wireless Networks", Ming Li, H. Zhu, S. Sathyamurthy, I. Chlamtac, and B. Prabhakaran, *Proceedings of the First International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine'04)*, pp. 140-147, Dallas, Oct. 18-20, 2004.
136. "Smart Decision Module for Streaming 3D Meshes Over Lossy Networks", H. Li and B. Prabhakaran, *Proceedings of the Tenth International Conference on Distributed Multimedia Systems (DMS 2004)*, San Jose, pp. 275-278, September 2004.
137. "Real-time Classification of Multivariate Motion Data Using Support Vector Machines (SVM)", Chuanjun Li, Punit R. Kulkarni, Li Liu, B. Prabhakaran and Latifur Khan, *Proceedings of the Fifth International Workshop on Multimedia Data Mining (MDM/KDD 2004)*, Seattle, WA, USA, pp. 1-7, August 24-30, 2004.
138. "*A Dynamic Priority Re-allocation scheme for Quality of Service in* IEEE 802.11e WLANs", Ming Li and B. Prabhakaran, Proceedings of Multimedia Computing and Networking (MMCN 2004), Santa Clara, January 2004.
139. "*Mobile Tracking and Resource Reservation Scheme for Cellular Networks*" Subbiah Shenbagaraman, S. Venkatesan, B. Prabhakaran, IEEE Semiannual Vehicular Technology Conference, Orlando, FL, October 2003. (CD-ROM Proceedings, no page numbers).
140. "*On Flow Reservation and Admission Control for Distributed Scheduling Strategies in IEEE802.11 Wireless LAN*", Ming Li, B. Prabhakaran, and S. Satyamurthy, Proceedings

of the Sixth ACM International Workshop on Modeling Analysis and Simulation of Wireless and Mobile Systems (MSWiM 2003), held along with ACM MobiComm'03, pp. 108-115, San Diego, CA, September 2003.

141. "*Interactive Visual Method for Motion and Model Reuse*", Akanksha, Z. Huang, B. Prabhakaran, and Ruiz, Jr. C. R., Proceedings of Graphite 2003, David Arnold and Geoff Wyvill (eds.), A Publication of ACM SIGGRAPH, pp. 29-36, color plates, 293. Melbourne, Australia, 2003.
142. "*A Framework For Reuse From Animation Multi-Databases*", N. Chokkareddy, Z. Huang, B. Prabhakaran, and M. Vattikuti, Proceedings of Multimedia Modeling Conference (MMM 2003), Chin-Hui Lee and Timothy K. Shih (eds), Tamkang University, Taiwan, January 2003, pp. 343-364.
143. "*Programmable Web Environment for Multimedia Applications*", J. Jakilinki and B. Prabhakaran, Proceedings of IEEE Workshop on Multimedia Signal Processing (MMSP'02), US Virgin Islands, December 2002.
144. "*Flexible Strategies for Disk Scheduling in Multimedia Presentation* Servers", S. Emilda, L. Jacob, O. Daescu, and B. Prabhakaran, Proceedings of IEEE Workshop on Multimedia Signal Processing (MMSP'02), US Virgin Islands, December 2002.
145. "*MAC Protocol Enhancements and A Distributed Scheduler for QoS* Guarantees over the IEEE 802.11 Wireless LANs", L. Jacob, Q. Qiu, R. R. Pillai, and B. Prabhakaran, Proceedings of the 56th IEEE Vehicular Technology Conference (VTC'2002), Vancouver, Canada, pp 2410 -2413, September 2002.
146. "*Mobile Tracking Using Forward Link in Cellular Networks*", S. Shenbagaraman, S. Venkatesan, and B. Prabhakaran, Proceedings of Emerging Telecommunications Technologies Symposium, Richardson, September 2002. Also available as Technical Report UTD-CS-09-02, Department of Computer Science, the University of Texas at Dallas, Richardson, TX 75083-0688, June 2002.
147. "*Flexible Disk Scheduling for Multimedia Presentation Servers*", S. Emilda, L. Jacob, O. Daescu, and B. Prabhakaran, 10th IEEE International Conference on Networks 2002 (ICON 2002), pp. 151 -155, Singapore, 2002.
148. "*MAC Protocol Enhancements for QoS Guarantee and Fairness over the IEEE 802.11 Wireless LANs*", Q.Qiang, L. Jacob, R. Pillai, and B. Prabhakaran, Proceedings of 11th IEEE International Conference on Computer Communications and Networks (IC3N02), pp. 628-633, Miami, Florida, October 2002.
149. "*A Scalable Web Hosting Framework*", B. Prabhakaran, Yuguang Tu, and Yin Wu, ISCA 14th International Conference on Parallel and Distributed Computing Systems Richardson, Texas, USA, August 8-10, 2001
150. "*Reusing Motions and Models in Animation*", Akanksha, Z Huang, B Prabhakaran, C R Ruiz, Jr., Proceedings of Eurographics MM 2001, Springer-Verlag/Wien, ISBN 3-211-83769-8, pp. 21-32. Also appears in J A Jorge, N M Correia, H Jones, and M B Kamegai (eds.) Multimedia 2001, Springer-Verlag/Wien, ISBN 3-211-83769-8. pp. 21-32, 2002.
151. "*An Online Repository for Embedded Software*", I-Ling Yen, Latifur Khan, B. Prabhakaran, Farokh B. Bastani, and John Linn, the Thirteenth Annual International Conference on Tools with Artificial Intelligence (ICTAI-2001), Richardson, TX, 2001.
152. "*Reusing Animations in Databases for Multimedia Presentations*", B. Prabhakaran, Binjia Jiao, Conrado R. Ruiz, Jr. and Zhiyong Huang, Asian Computing Conference 2000, Malaysia.

153. "*A Forward Error Recovery Technique For Real-time MPEG-2 Video Transport and its Performance over Wireless IEEE 802.11 LAN*", R. Pillai, B. Prabhakaran, and Q. Qiang, Proceedings of IEEE ICCCN 2000, Las Vegas, October 2000.
154. "*Protocols for Collaborative Multimedia Presentations*", E. Hwang and B. Prabhakaran, IEEE International Conference on Multimedia and Expo (ICME 2000), New York, July 2000.
155. "*Scalable Video Delivery on the Web*", B. Prabhakaran, Yuguang Tu, and Yin Wu, Network and Operating System Support for Digital Audio and Video (NOSSDAV 2000), Chapel Hill, USA, June 2000.
156. "*Merging Retrieval Requests for Multimedia Storage Server*", B. Prabhakaran and E. Hwang, First International Workshop on Intelligent Multimedia Computing and Networking (IMMCN' 2000), New Jersey, USA, March 2000.
157. "*Scheduling Multimedia Information Delivery Over Unicast Wireless Channels"*, B. Prabhakaran, Proceedings of 3rd IEEE Symposium on Application-Specific Systems and Software Engineering and Technology (ASSET 2000), Richardson, Texas, March 2000.
158. "*Application-Layer Broker For Scalable Internet Services With Resource Reservation"*, P. Bai, B. Prabhakaran, and A. Srinivasan, Proceedings of ACM Multimedia'99, Orlando, 1999.
159. "*A Forward Error Recovery Technique For MPEG-II Video Transport*", R. Pillai, B. Prabhakaran, and Q. Qiang, Proceedings of ACM Multimedia'99, Orlando, 1999.
160. "*Resource Negotiation for Collaborative Multimedia Presentations*", B. Prabhakaran, IEEE Conference on Multimedia Computing Systems (ICMCS'99), Florence, Italy, June 1999.
161. "*Distributed Video Presentations*", E. Hwang, B. Prabhakaran, and V.S. Subrahmanian, Proceedings of International Conference on Data Engineering (ICDE'98), Orlando, February 1998.
162. "*Scheduling Responses From Video Databases*", E. Hwang, B. Prabhakaran, and V.S. Subrahmanian, Proceedings of Third International Workshop on Multimedia Information Systems, Lake Como, Italy, September 1997.
163. "*CHIMP: A Framework for Supporting Multimedia Document Authoring and* Presentation", K.S. Candan, B. Prabhakaran and V.S. Subrahmanian, Proceedings of ACM Multimedia '96 Conference, Boston, November 1996.
164. "*CHIMP: A Framework For Distributed Multimedia Documents*", K.S. Candan, B. Prabhakaran, and V.S. Subrahmanain, Proceedings of Second International Workshop on Multimedia Information Systems, West Point, New York, USA, September 1996.
165. "Quality of Service Considerations For Distributed, Orchestrated Multimedia Presentation", S.V. Raghavan, B. Prabhakaran, and Satish K. Tripathi, Proceedings of High-Performance Networking 94 (HPN'94), Paris, France, July 1994, pp. 217-238.
166. "*Synchronization Models For Multimedia Presentation With User Participation"*, B. Prabhakaran and S.V. Raghavan, Proceedings of ACM Multimedia'93, Anaheim, California, August 1993, pp. 156-164.
167. "*Formal Specification of Fault Management Systems Using O-ESTELLE"*, B. Prabhakaran and S.V. Raghavan, Proceedings of International Conference on Communication Systems (ICCS), Singapore, November 1992.
168. "*Object-Oriented Extensions to ESTELLE*", B. Prabhakaran and S.V. Raghavan, Proceedings of the Tenth International Conference in Computer Communication, ICCC-

90, pp. 750-757, November 1990.

169. "*Design and Implementation of Distributed Information Management* System in *OSI Environment*", M.K. Suresh, B. Prabhakaran, and S.V.Raghavan, Proceedings of International Conference on Communication Systems (ICCS), Singapore, November 1990.
170. "*EEPP: E-Estelle Pre-Processor"*, B. Prabhakaran and S.V.Raghavan, Proceedings of International Conference on Communication Systems (ICCS), Singapore, November 1990.
171. "*Implementation of Distributed Information Management System over TCP/IP"*, S.V. Raghavan, M.K. Suresh and B. Prabhakaran, Proceedings of Intl. Conference on Management of Data (COMAD'89) held at Hyderabad, November 1989.

III. Invited Talks

1. Invited Speaker, North Texas AI Alliance University Coordination Symposium, September 2023.
2. Invited Panelist, RobotLab, July 2023.
3. Keynote Speaker, ACM Multimedia System, Athlone, Ireland, June 2022.
4. Invited Speaker at multiple events as NSF Program Director, 2019-2023.
5. Invited Speaker, Joint Base San Antonio (JBSA) 5G Consortium Steering Committee Meeting, December 10, 2020.
6. Panelist, Smart Data & Digital Health Services Beyond COVID19, IEEE International Conference on Services/Smart Data Services (Services/SMDS), October 21, 2020 (Online Event).
7. Keynote Speaker, 49th Annual IEEE AIPR 2020: Trusted Computing, Privacy, and Securing Multimedia, Washington, D.C., October 13-15, 2020 (Online Event).
8. Keynote Speaker, Arkansas Bio-Informatics Consortium (AR-BIC), February 11, 2020.
9. "Personalized Care and Intervention: Challenges and Opportunities", Keynote Speaker, IEEE Global SIP (Signal and Information Processing) Symposium on Signal and Information Processing for Person-centered and Citizen-centered Smart Living, November 14, 2019.
10. "Innovative Augmented-Reality Based Customized Gaming Solutions for Home Exercises Following Stroke", Symposium, 96th Annual Conference of American Congress on Rehabilitation Medicine (ACRM), Chicago, November 5-8, 2019.
11. Invited Speaker and Participant, Workshop on ACM SIG Heritage, 20-21, Minneapolis, May 2019.
12. Invited Speaker, US Air Force Science, and Technology 2030 (Vision workshop organized as part of Secretary of the U.S. Air Force initiative), Salt Lake City, July 11, 2018.
13. Invited Participant, The Future VR/AR Network – Towards Virtual Human/Object Teleportation - NSF Vision Workshop on Networked Virtual and Augmented Reality Communications Washington, DC, April 23-24, 2018.
14. Keynote Speaker, "Quantifying the Quality of Immersive Experiences", 2nd ACM International Workshop on Multimedia Alternate Realities (AltMM 2017), Mountain View, CA, October 2017.
15. Invited Exhibitor (invited by the US National Science Foundation (NSF)), Smithsonian's ComicCon/FutureCon at AwesomeCon, Washington DC, June 2017.
16. Invited Participant, NSF Workshop on Multimedia Research Challenges for the Next Ten Years, Arlington, VA, March 2017.
17. Invited Exhibitor, Arc of Science: From Research to Results, NSF – Capitol Hill Event (invited demonstrations to Congressmen and Senators), February 2017.
18. Invited Speaker, "Tele-Rehabilitation: Status of Current Research, Clinical Practice, Medicolegal Issues, and Implications for Future", 2017 Annual Meeting of Association of American Physiatrists, Las Vegas, NV, February 2017.

19. Keynote Speaker, "All Living Things Move – Role of Kinematics in Healthcare and Performance", 3rd Pattern Recognition for Healthcare Analytics workshop at ICPR2016, Cancun, Mexico, December 2016.
20. Panelist, 3rd Pattern Recognition for Healthcare Analytics workshop at ICPR2016, Cancun, Mexico, December 2016.
21. Tutorial Speaker, "Mulsemedia"-based Collaborative Mixed/Virtual Reality Environments", IEEE International Conference on Multimedia and Expo (ICME), Seattle, July 2016.
22. Plenary Speaker, "MulSeMedia–The case of Vanishing Role Differences and Delays between Content Producers and Consumers", 8th Mexican Conference on Pattern Recognition (MCPR), Guanajuato, Mexico, June 22-25, 2016.
23. Tutorial Speaker, "MulSeMedia-based Collaborative Mixed/Virtual Reality Environments", 8th Mexican Conference on Pattern Recognition (MCPR), Guanajuato, Mexico, June 22-25, 2016.
24. Invited Speaker, "Multimedia 2035", IEEE International Conference on Multimedia and Expo (ICME 2015), Torino, Italy, June 29-July 3, 2015.
25. Invited Participant, Retreat on Future of Multimedia, ACM Special Interest Group on Multimedia (SIGMM), Orlando, Florida, November 2014.
26. Invited Speaker, International Conference on Wireless Sensor Networks & Information Security, SASTRA University, December 2013.
27. Colloquium Speaker, "Tele-Rehabilitation", the University of Texas at Arlington, November 2013.
28. Invited Speaker, ACM SIGMM Business Meeting, Barcelona, Spain, October 2013.
29. Invited Speaker, International Conference on Data Mining and Soft Computing Techniques, SASTRA University, India, October 2013.
30. Invited Speaker, Florida AM Radio show on Health, Wealth and Wisdom, March 6, 2013 (3.30 pm)
31. Invited Speaker, ACM SIGMM Business Meeting, Nara Japan, October 2012.
32. Tutorial Speaker, "3D Video Segmentation, Recognition, and Retrieval", ACM International Conference on Multimedia Retrieval (ICMR 2012), Hong Kong, June 2012.
33. Invited Speaker, "Supporting Immersive Tele-Rehabilitation", Computer Science Department, University of California, Berkeley, June 2012.
34. Invited Speaker, International Workshop on Hot Topics in Multimedia Research, New York University in Abu Dhabi (NYUAD), the United Arab Emirates on May 2-3, 2012.
35. Invited Participant, ACM SIG (Special Interest Groups) Governing Board (SGB), Chicago, March 2012.
36. Invited Speaker, "Multimedia Security", Invited Workshop on Future Wireless and Multimedia Systems, Infosys Campus, Bangaluru, India, December 2011.
37. Panelist, Future Internet Research, Invited Workshop on Future Wireless and Multimedia Systems, Infosys Campus, Bangaluru, India, December 2011.
38. Invited Speaker and Participant, ACM SIGMM (Special Interest Group on Multimedia) Business Meeting, November 2011.
39. Invited Speaker, "MOVERS: Mobile Virtual Environment Rehabilitation System", Physical Medicine & Rehabilitation (PM&R) Annual Scientific day, University of Texas Southwestern Medical Center, Dallas, Texas, May 2011.
40. Invited Speaker, "Working with Multiple, Multidimensional Body Sensor Data Streams", Computer Science Department, University of Illinois, Urbana-Champaign, 2011.

41. Invited Speaker, “Analyzing Body Sensor Streams”, Computer Science Department, University of Ottawa, Canada, 2010.
42. Invited Speaker, “Working with Multiple, Multidimensional Body Sensor Data Streams”, IBM TJ Watson Research Center, New York, 2010.
43. Invited Speaker, “Multimodal Sensing of Human Interaction”, IEEE Dallas Computer Society, April 2010.
44. Invited Speaker, Computer Science Department, Southern Methodist University (SMU), Dallas.
45. Tutorial Speaker, “Signal Processing in Body Sensor Networks”, IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), March 15, 2010, Dallas, Texas.
46. Invited Speaker and Participant, ACM SIGMM (Special Interest Group on Multimedia) Business Meeting, October 2010.
47. Keynote Speaker, “Enriching User Experience with Intuitive Interactions and Immersive Environments”, Workshop on Ambient Media Computing, held along with ACM Multimedia 2009, Beijing, October 23, 2009.
48. Invited Speaker and Participant, ACM SIGMM (Special Interest Group on Multimedia) Business Meeting, October 21, 2009.
49. Tutorial Speaker, “Multimedia Aspects in Pervasive Health Care”, ACM Multimedia, October 20, 2009.
50. Keynote Speaker, “Sensing Human Interaction”, IASTED Internet and Multimedia Systems and Applications, August 17-19, 2009, Honolulu, Hawaii.
51. Tutorial Speaker, “Multimedia Aspects in Health Care”, IEEE Conference on Multimedia and Expo (ICME), New York, June - July 2009.
52. Invited Speaker, “Classifying Human Performance”, Defense Academy for Credibility Assessment, Fort Jackson, SC, February 26, 2009.
53. Tutorial Speaker, “Storage, Retrieval, and Communication of Body Sensor Network Data”, ACM Multimedia, October 2008.
54. Invited Speaker (“SIGMM Online”) and Participant, ACM SIGMM Retreat October 26-27, 2008.
55. Invited Speaker (“SIGMM online”) ACM SIGMM Business Meeting, October 2008.
56. Invited Speaker (“Body Sensor Networks”) in Anna University (MEPCO, Sivakasi Campus), SASTRA University, Madurai-Kamaraj University, July 2008.
57. Invited Speaker and Participant, Hot Topics in Multimedia Research, ACM Multimedia Technical Program Committee Workshop, June 21, Darmstadt, Germany.
58. Invited Speaker ("Context Assistance in Media Interpretations"), and Participant, Dagstuhl Seminar on *Contextual and Social Aspects of Multimedia*, Dagstuhl Castle, Germany, June 2008.
59. Invited Speaker, “Portable Biomechanical Monitoring Systems: Science, Technology and Potential Rehabilitation Applications”, Physical Medicine & Rehabilitation Grand Rounds, University of Texas Southwestern Medical Center, June 6, 2008.
60. Invited Speaker, “Analyzing Human Performance Data Streams”, UTD-Keimyung University, South Korea Conference, Dallas, TX, June 12, 2008.
61. Invited Speaker, “Working with Multiple, Multidimensional Human Performance Data Streams”, First BigD* Regional Symposium on Data and Information Management, the University of Texas at Arlington, April 19, 2008.
11. Invited Speaker, “Streaming 3D Databases and Authentication”, Navigation Technologies (NavTeq), February 11, 2008.
12. Speaker, School of Engineering and Computer Science Scholars Day, the University of Texas at Dallas, March 17, 2007.

13. Speaker, AVID Program, Frankford Middle School, Plano ISD, March 30, 2007.
14. Invited Speaker, Department of Computer Science, the University of Texas at Arlington.
15. Panel Member, US Army Research Office (ARO) Proposals Review.
16. Panel Member, NSF CISE Panel.
17. Panelist & Speaker, Pravasi Bharatiya Divas 2008, January 7-9, 2008, New Delhi.
18. Invited speaker ("Research in 3D Motion Capture Data"), Gaming Conference, UT Dallas, January 19, 2007.
19. Invited participant and speaker, Dagstuhl Seminar on *Future* Directions in Multimedia Research, Dagstuhl Castle, Germany, March 2005.
20. Tutorial speaker in ACM Multimedia Conferences:
    (a) ACM International Conference on Multimedia Retrieval (ICMR 2012), Hong Kong, June 2012, *3D Video Segmentation, Recognition, and Retrieval*.
    (b) ACM Multimedia, October 2008, Vancouver, Canada: *Storage, Retrieval, and Communication of Body Sensor Network Data*
    (c) ACM Multimedia 2001 Conference, Ottawa, Canada: *Scalable Multimedia servers*.
    (d) ACM Multimedia 2000 Conference, Los Angeles, November 2000: *Scalable Multimedia Servers*.
    (e) ACM Multimedia'99 Conference, Orlando, November 1999: *Adaptive Multimedia Presentations*.
    (f) ACM Multimedia'98 Conference, Bristol, UK, September 1998: *Managing Resources For Multimedia Presentations*.
21. Tutorial speaker, International Conference on Distributed Multimedia Systems (IDMS 2000), Enschede, Netherlands.
22. Invited participant and speaker, Dagstuhl Seminar on *Network Resource Management and Multimedia Synchronization*, Dagstuhl Castle, Germany, July 1997.

IV. External Funding

1. "Collaborative Adaptive Augmented Reality Environment (CAARE)", US Army Research Laboratory (ARL), PI: B. Prabhakaran, $256,000, June 2021- June 2023.
2. "Robustness Studies in 3D Camera Data", US Army Research Office (ARO), PI: B. Prabhakaran, $360,000, June 2017 – December 2021.
3. "MRI: Development of a Cloud-Based Instrument for Heterogeneous Biomedical Body Sensor Systems", National Science Foundation (NSF), UTD PI: B. Prabhakaran, California State University at Fresno PI: Ming Li, $400,000 (UTD Share: $80,000), October 1, 2016 – September 30, 2019.
4. "Feasibility and Functional Outcomes of a Novel Home-Based Rehabilitation Coach System for Patients with Mobility Impairment Post-Stroke", $80,000 (UTD Share: $32,150), Mobility Foundation and Dallas Veterans Affairs Research Corporation (DVARC), UTD PI: B. Prabhakaran (Dallas Veterans Affairs PIs: Dr. Thiru Annaswamy and Dr. Una Makris), August 2016.
5. "Robust 3D Surveillance", US Army Research Office (ARO) STIR (Short Term Innovative Research), PI: B. Prabhakaran, $50,000, May 1, 2016 – January 31, 2017.
6. "Situation-Aware Collaborative Tele-Immersion and Gaming Environment and Resources (SAC-TIGER) Framework for Scalable Tele-Rehabilitation", US IGNITE (administered by National Science Foundation), $298,893 (2014-2017)
7. "I/UCRC Phase I: iPerform - I/UCRC for Assistive Technologies to Enhance Human

Performance", National Science Foundation (NSF), Co-PI: B. Prabhakaran, G. Gupta, and D. Bhatia. PI: O. Daescu. $325,000

8. "Investigations on Multimedia Transport Protocol", $8000, TIN Consulting (2014).
9. "Investigations on Recognition of Aircraft Registration Numbers", $3000, Airside Logix (2014).
10. "NetSE:Large:Collaborative: Exploiting Multi-modality for 3D Tele-immersion", National Science Foundation (NSF), (PI: B. Prabhakaran), 2010-2019, Total budget: $2.4 million; UTD Budget: $1.58 million. UTD Co-PIs: Xiaohu Guo, Roozbeh Jafari, and Mark Spong. (Other Collaborators: University of Illinois, Urbana-Champaign, Dallas Veterans Affairs (VA), and the University of California, Berkeley).
11. "Emotion Based Content Recommendation System", Funded Research with Alcatel-Lucent (Plano, Texas) and UTD Mobile Lab (ATEC: Prof Dean Terry), Supports 2 Graduate RAs of B. Prabhakaran for 1 year (2011-2012).
12. "Pico Life: Augmented, Multi-player 3D Mobile Gaming World", PI: X. Guo; Co-PI: B. Prabhakaran, Texas Instruments, $50,000, 2010-2011.
13. "Haptic Guidance for Breast Biopsy Systems**",** Medical Technology Consortium (Texas Health – Texas Instruments – UT Arlington – UT Dallas) Grant, $100,000, 2010. (PI: Venkat Devarajan; Co-PI: B. Prabhakaran; UTD Part: $50,000).
14. "Visible Speech", (PI: B. Prabhakaran), Neural Technology Center, the University of Texas at Dallas, $20,000, 2010.
15. Funded Research with Alcatel-Lucent (Plano, Texas) and UTD Mobile Lab (ATEC: Prof Dean Terry), Supports 2 Graduate RAs of B. Prabhakaran for 1 year (2010-2011).
16. Funded Research with QuEST Forum, Supports 1 Graduate RA of B. Prabhakaran for 2 years (2010-2011).
17. Funded Research with Callier Center, UTD. Supports 1 RA per year, PI: B. Prabhakaran, 2008-2011.
18. "Interactive Video System", Texas RCIC Funding Through 2cimple Interactive Inc., PI: B. Prabhakaran, $30,000, 2009.
19. "Assessment and Scoring of the Test of Strategic Learning (TOSL)", Center for Brain Health, UTD, $25,000, PI: B. Prabhakaran, 2009.
20. "Secure Semantic Grids for Network Centric Operations. Sub-topic: Analyzing Terror Networks" Air Force Office of Scientific Research (AFOSR) Congressional Funding, Co-PI: B. Prabhakaran, PI: Bhavani Thuaraisingham, $100,000, 2008-2011, (Other Co-PIs at UTD for other sub-topics: M. Kantarcioglu, L. Khan, I.L. Yen).
21. "GPS in-building penetration and Inertial Navigation Sensors", Texas Instruments, $30,000, PI: B. Prabhakaran, 2008.
22. "ACM Special Interest Group on Multimedia (SIGMM) Online Multimedia Community", Association of Computing Machinery (ACM), $56,616, PI: B. Prabhakaran., 2008-2011.
23. "MobileLab: Ericsson Project", Ericsson, Co-PI: B. Prabhakaran, PI: Dean Terry, $100,000, 2008-2010.
24. "Mobile Video Portal", PI: B. Prabhakaran, Consortium of 3 Industry Partners - Alliance Systems, Bay Talkitek, and Dialogic; $104,115.
25. "MobileLab TI Project", Texas Instruments, Co-PI: B. Prabhakaran, PI: Dean Terry, $130,000.

26. “Culture and Motion Capture - an HTS Application (CMICHA)”, BAE Systems/ US Army Space and Missile Defense Command (USASMDC), PI: Thomas E. Linehan, Co-PIs: A. Blanchard & B. Prabhakaran, $323,965, 1/5/2007 – 9/30/2007.
27. “Storage, Retrieval, and Delivery of 3D Models and Multi-attribute Motion Data”, PI: B. Prabhakaran, Army Research Office (ARO). Program: Discrete Mathematics and Computer Graphics, Mathematics Division. $240, 000, September 2005 - August 2008.
28. “3D Watermarking”, PI: B. Prabhakaran, AT&T Foundation, $33,333, December 2004 - June 2006.
29. PI, “*CAREER: Animation Databases*”, US National Science Foundation(NSF) CAREER Grant, IIS-0237954, $440,500, 2003-2008.
30. International Collaboration Partner, " Study on the Platform for QoS guaranteed Traffic Engineering and Multimedia Service under Next Generation Wired/Wireless Integrated Network Environment", Korea IT Industry Promotion Agency, 2003/8/1 - 2007/7/31, $5.5 million (a multi-party project with several universities).
31. Co-PI, “TL 9000 Registration Repository System (RRS) for QuEST Forum”, Quality Excellence for Suppliers of Telecommunications (QuEST) Forum, (approximately) $1 million, 2002-2008. PI: D. Harris.
32. Investigator, Clark Foundation grant for Scheduling delivery of multimedia information. Investigators: B. Prabhakaran and R.N. Uma. Grant amount $48,000, 2002.
33. Funded research with Texas Instruments, through the Embedded Software Center: Software component repository, 2001-2002.
34. Funded research with Alcatel USA; funded through the Embedded Software Center: Web-server load balancing. Supported a Research Assistant for 1 year, 2002.

UT Dallas Internal Seed Grants:

1. "In-home Rehabilitation", $35,000, Seed Funding from Dean, Erik Jonsson School of Engineering and Computer Science, UT Dallas, 2016.
2. “School of Engineering Service Award for Computer Science Department”, B. Prabhakaran, $25,000, 2007-2008.
3. “Haptics and Virtual Reality Laboratory”, B. Prabhakaran, K. Zhang, X. Guo, and D.T Huynh, Project Emmit Grant, $500,000, November 2007.
4. “ACM Multimedia and Security 2007 Workshop Seed Grant”, B. Prabhakaran, Project Emmit Grant, $4000, September 2007.
5. “Archiving 3D Motions”, PI: B. Prabhakaran, Project Emmit grant, $30,000, December 2006.
6. “NeTS-ProWIN: Interference Aware Adhoc Networks”, PI: B. Prabhakaran, Project Emmit grant, $75,000, March 2005 - August 2006.
7. “Supplemental Funding for MoCap Lab”, PI: B. Prabhakaran, Co-PI: Mihai Nadin, Project Emmit grant, $22,000, July 2005.
8. “Motion Capture and Virtual Reality Laboratory”, PI: B. Prabhakaran, Co-PI: Thomas E. Linehan, Project Emmit grant, $300,000, August 2004.

Grants in Other Appointments:

9. PI, Academic Research Grant RP 3981669, on Multimedia documents-on-demand servers, National University of Singapore, S$122,000, July 1998-2000.
10. PI-in-charge for the Project on Education and Research in Computer Networking (ERNET),

for brief periods. Sponsors: Department of Electronics (DoE, Govt. of India) and the United Nations Development Program (UNDP).

11. PI-in-charge for research-based consultancy on distributed databases for the Department of Telecommunications (DoT, Govt. of India), for brief periods.

Teaching

I. Students Supervised

A. Graduated Ph.D. Students: (with last known jobs)

1. Sagnik Dakshit, "Framework for Deep Learning on Healthcare Time Series Data", June 2023 (University of Texas at Tyler).
2. Barbara Mukami Maweu, "Validation and Interpretable Model Explanations for Synthesized Data in Healthcare", June 2021.
3. Shanthi Vellingiri, "Assessment Of QoE And Learning Effectiveness In Collaborative Mixed Reality Environments", March 2020 (Co-Supervised with Ryan McMahan) (Engineer, Apple Inc.).
4. Rittika Shamsuddin, "Analyzing and Synthesizing Healthcare Time Series Data For Decision-Support", May 2019 (Oklahoma State Univerity).
5. Kevin Parag Desai, "Quantifying Experience and Task Performance in 3D Serious Games", May 2019 (the University of Texas at San Antonio).
6. Kanchan A. Bahirat, "On 3D Content Manipulation: Simplification, Modification, and Authentication", December 2018 (Research Scientist, Vicarius – AI for Robots).
7. Myunghoon Suk, "Study of Real-Time Facial Expression Recognition in Noisy Images and Videos", August 2018 (Research Engineer, Topazlabs).
8. Yuan Tian, "Haptic Rendering in 3D Immersive Virtual Environment", 2017. (Jointly supervised with Dr. Xiaohu Guo) (Research Scientist, Midea Robotics).
9. Arvind Balasubramanian, "Mining Patterns in Sensor Data For Personalized Healthcare", 2017 (Data Scientist, Expedia Inc).
10. Suraj Raghuraman, "i3DTI: Interactive 3D Tele-Immersion", 2017. (Founder: MobiWeb)
11. Ranran Feng, "Sum of Facial Parts Tells More Than The Face? Study of Impacts of Fashion Alterations On Facial Identity", 2014. **(Best Teaching Assistant for the Year 2013).** (Currently with the University of Texas at Dallas).
12. Duk-Jin Kim: *Faulty and Missing Sensor Data Analysis*, 2012, Data Scientist, Institute for Data Analytics, the University of Texas at Dallas.
13. Ziying Tang: *Real-time Streaming for Collaborative Interactions* (Jointly supervised with Dr. Xiaohu Guo) – tenure-track faculty, Towson University, Maryland - 2010.
14. Yang Liu: *Spectral Analysis on Manifold and Applications* (Jointly supervised with Dr. Xiaohu Guo) – Engineer, nVidia Graphics - 2010.
15. Gaurav N. Pradhan, ("On Analyzing Multiple, Physiological Sensor Databases", 2008. (Associate Professor, Mayo Clinic College of Medicine, Phoenix, AZ)
16. Yohan Chin ("Knowledge Analysis & Application to Multimedia Content Recognition Problems" – Data mining Research, MySpace.com, FoxTV), 2008.
17. Junqiang Zhou ("Guarding Algorithm and Robust Video Surveillance" – Software Design Engineer, ASML Inc.,). Jointly supervised with Prof Simeon Ntafos, 2007.
18. Agarwal, Parag ("3D Content Protection" - FairWarning, Inc. – a start-up on medical security software), 2007.

19. Li, Chuanjun ("Efficient 3D Motion Pattern Retrieval in Large Motion Capture Databases"). **Best Ph.D. Dissertation Award for the Year 2006**. (Jointly supervised with Prof SQ Zheng). Currently: Post-doc at Brown University, Supervisor: Prof Andy van Dam.
20. Li, Hui ("Streaming 3D Progressive Meshes over Lossy Networks"). Currently: Research Engineer at Ask.com.
21. Li, Ming ("Interference Aware QoS Strategies In IEEE 802.11 Wireless Networks"). **Best Teaching Assistant Award for the Year 2006**. Currently: Assistant Professor, California State University, Fresno.

B. Current Doctoral Advisement:

1. Somayeh Mohammadpour
2. Sagnik Dakshit
3. Yu-Yen Chung
4. Hung-Jui Guo
5. Hiranya Gharba Kumar
6. Ninad Arun Khargonkar
7. Omeed Eshaghi Ashtiani

D. Completed MS Dissertations

1. Nalawade, Rahul Shankarrao, "AI-Based Orthodontics", May 2019.
2. Kumar Hiranya Garbha, "Finger-Tip Recognition for 3D Mixed Reality Applications", 2018.
3. Lakshmi Sharma, "Learn DNA: An interactive VR application for learning DNA structure", 2018.
4. Sudhir Ramalingam, "Importance of Interaction in Interactive 3D Tele-Immersion", 2016.
5. Cameron H. Watkins, "Sensor Driven Realtime Animation for Feedback During Physical Therapy", 2015.
6. Ganesh Salvi, "Storage and Retrieval of Multimodal 3D Tele-Immersion Data", 2014.
7. Satwant Singh, "Targeted Facial Feature Detection and Matching Using HAAR and SIFT", 2012.
8. Ramprasad Srinivasan, "Enhanced Active Shape Model Using Texture Information In Profile Model", 2011.
9. Anantkumar Patel, "Haptic Guided Biopsy Framework", 2011.
10. Sancho Sebastine, "Semantic Web for Content-Based Video Retrieval", 2010.
11. Ashok Ramdas, "Feature Extraction Method for video-based human action recognitions: Extended optical flow Algorithm", 2010.
12. Manoj Garg, "*Network-Aware Energy-Efficient Communication (NAEEC) Protocol for Heterogeneous Wireless Sensor Networks*", 2009.
13. Amruthraj Belaldavar, "*American Sign Language Generator*", 2008.
14. Pawar, Manoj, "*Content-Based Querying and Searching for 3D Human Motions*", 2007.
15. Park, Gyetae, "*Novel Multi-channel Assignment of Wireless Mesh Networks*", 2007.
16. Agrawal, Sameer, "*Error Concealment Scheme for Loss Tolerant 3D Progressive Meshes*", 2006.
17. Naik, Sagar S., "*3D Shape Retrieval*", 2006.
18. Prakash, Arun, "*Visualization of Animation Databases*", 2006.

19. Ramaswamy, Vivek Shankar, "*Demand-Driven Retrieval Schedules for Progressive Transmission of 3D Animations*", 2006.
20. Jain, Anshuman, "*Adaptive Packet Bursting Scheme for Handling QoS in Multi-rate Multi-hop AdHoc networks*", 2005.
21. Kulkarni, Punit R., "*An Efficient Pattern Isolation and Recognition System for Multi-Attribute Streaming Data*", 2005.
22. Lalwani, Ashok J., "*Interference-aware Routing in Wireless Ad Hoc Networks"*, 2005.
23. Pradhan, Gaurav N., "*Indexing and Compression of Multi-Attribute Variable Length Multi-Dimensional Motion Data*", 2005.
24. Rajagopalan, Srinivas, "*Reduction of Search Space for Collision Detection in Animation Authoring Environments*", 2005.
25. Ramesh, Shwetha, "*Interference-Aware Topology Control in Wireless Ad- Hoc Networks*"
26. Shah, Parinkumar D., "*View-Dependent Partition Based 3D Model Streaming*", 2005.
27. Shankar, Venkatesh, "*Providing QoS Support in Multi-Hop Ad Hoc Networks*", 2005.
28. Zhai, Peng, "*Animation Data Translation Based on Schema Matching*", 2005.
29. Krishna Rangarajan, "*3D Modeling*", 2004.
30. Phani S Kotharu, "*Partial Fuzzy Query Resolution for Animation Authoring*", 2004.
31. Sukumar Ramraj, "*Combinatorial Scheduling Algorithms To Sequence Information Delivery*", 2003.
32. Satish Sathyamurthy, "*End-to-End QoS Guarantee in Heterogeneous Wired-Cum-Wireless Networks*", 2003.
33. Nutan Chokka Reddy, "*3D Model Matching*", 2003.
34. Mythreyi Vattikuti, "*XML-Based Toolkit for Reusing Multi-format* Animations", 2003.
35. Deepa S. Shankar, " *Development of Collaborative Framework Enabling* Content Adaptation on Internet Data", 2003.
36. Veerdhawal Pande: "*Dynamic Content Generation Using Collaborative* Caching", 2003.
37. Deeptichand Parvathaveni (Jointly supervised with Dr. R.N. Uma), "Placement of Replicated Continuous Media Objects", 2003.
38. Narayanan Annamalai, (Jointly supervised with Dr. Gopal Gupta), "*An* Extensible Transcoder for HTML to VoiceXML Conversion", 2002.
39. J. Jagannatha Rao, *"Configurable Framework for Collaborative* Applications Management", 2002.
40. Subbiah Shenbagaraman (Jointly supervised with Dr. S. Venkatesan), "*Tracking Mobile Devices in Cellular Networks using Forward Link*", 2002.
41. Tu Yuguang (National University of Singapore): *"Object-level Scalable* Web Servers", 2000.

II. CLASSROOM TEACHING

In the past 25 years of my academic career (after my Ph.D.), I have taught 12 different courses at graduate and undergraduate levels. After joining UT Dallas, I have introduced 5 new courses. At the graduate level, I introduced courses such as Multimedia Systems, Video Analytics, and Mixed and Augmented Reality Systems. At the undergraduate level, I introduced courses such as Health-data Analytics & Tele-medicine (along with Prof. Lakshman Tamil) and Computer Gaming (along with Professors Ovidiu Daescu & Xiaohu Guo). I also taught existing courses such as Advanced Operating Systems (Graduate course) and Undergraduate courses: Programming in Java, Discrete Structures, and Computer Animation.

I have also contributed to the creation of 2 new tracks at the graduate level: (a) Data Science (Video Analytics is one of the core courses); (b) Interactive Computing (Multimedia Systems is one of the core courses.

1. 2019 & 2020: On IPA (Inter-Governmental Personnel Act) to the US National Science Foundation (NSF).
2. 2018 Fall, Mixed and Augmented Reality Systems
3. 2018 Spring, Video Analytics
4. 2017 Fall, Multimedia Systems
5. 2017 Spring, Video Analytics
6. 2016 Fall, Multimedia Systems
7. 2016 Spring, Video Analytics
8. 2015 Fall, Multimedia Systems
9. 2015 Spring, Video Analytics
10. 2014 Fall, Multimedia Systems
11. 2014 Spring, Video Analytics
12. 2014 Spring, Tele-medicine and Health-care Data Analytics
13. 2013 Spring, Video Analytics
14. 2013 Spring, Tele-medicine and Health-care Data Analytics
15. 2012 Fall, Multimedia Systems
16. Sabbatical in Spring 2012
17. Sabbatical in 2011 Fall
18. 2011 Spring, Multimedia Systems
19. 2010 Fall, Advanced Operating Systems
20. 2010 Spring, Multimedia Systems
21. 2010 Spring, Computer Animation
22. 2009 Fall, Advanced Operating Systems
23. 2009 Spring, Multimedia Systems
24. 2009 Spring, Computer Animation
25. 2008 Fall, Advanced Operating Systems
26. 2008 Spring, Multimedia Systems
27. 2008 Spring, Game Programming
28. 2007 Fall, Advanced Operating Systems
29. 2007 Spring Computer Animation
30. 2007 Spring Advanced Operating Systems
31. 2006 Fall, Multimedia Database Management Systems
32. 2006 Spring, Advanced Operating Systems
33. 2006 Spring, Discrete Mathematics II
34. 2005 Fall, Recent Advances in Multimedia Database Management Systems
35. 2005 Spring, Advanced Operating Systems
36. 2005 Spring, Discrete Mathematics II
37. 2004 Fall, Advanced Operating Systems
38. 2004 Spring, Advanced Operating Systems
39. 2003, Spring, Advanced Operating Systems
40. 2002, Fall, Advanced Operating Systems
41. 2002, Spring, Advanced Operating Systems

42. 2001, Fall, Advanced Operating Systems
43. 2001, Spring, Programming in Java

Teaching at Other Universities

1. 1998, Fall - 2000 Spring: Computer Networks, National University of Singapore.
2. 1998, Spring, Hypermedia Information Systems, National University of Singapore.
3. 1997, Spring, Telecommunication Protocol Design, University of Maryland, College Park, USA.
4. 1994, Spring-Fall, Computer Networks, Indian Institute of Technology, Chennai (formerly, Madras), India.
5. 1993, Fall, Programming & Data Structures, Indian Institute of Technology, Chennai, India.

Services

Summary of Professional Community Services:

1. *Selected Editorial Board Memberships*: Associate Editor-in-Chief, IEEE MultiMedia, 2022; Associate Editor, IEEE Multimedia Magazine (2020 – till present); Associate Editor, IEEE Transactions on Multimedia (2015-2020); Associate Editor, Multimedia Systems Journal, Springer Publishers, USA; Associate Editor, Journal of Health Informatics Research (JHIR), Springer; Editor, Artificial Intelligence in Medicine (AIIM), Elsevier; Editor, International Journal of Multimedia Tools and Applications, Springer (earlier, Kluwer Academic) Publishers, Boston, MA, USA; Editor-in-chief, ACM SIGMM Online Magazine; Journal of Multimedia, Academy Publishers; Guest-editor, special issue on *Multimedia Semantics*, Journal of Signal Processing Systems, Springer, 2010.

2. *General Co-Chair* of ACM Multimedia 2024 (Melbourne), IEEE ICHI (International Conference on Health Informatics) 2015; IEEE HAVE (Haptic, Audio-Visual Environments, and Games) 2014; ACM ICMR (International Conference on Multimedia Retrieval) 2013; ACM Multimedia 2011; ACM Multimedia and Security Workshop (MMSec) 2007.

3. *Technical Program Chair* of ACM Multimedia 2021, IEEE International Conference on Multimedia and Expo (ICME) 2017; IEEE ICHI (International Conference on Health Informatics) 2014; IEEE WoWMoM (World of Wireless and Multimedia) 2012; IEEE ISM (International Symposium on Multimedia) 2010.

4. *Steering/Executive Committee Membership*: Executive Committee Member of ACM SIGMM (Special Interest Group on Multimedia); Steering Committee Member of the International Conference on Multimedia Retrieval (ICMR); Steering Committee Member of ACM IH & MMSec (Information Hiding and Multimedia Security).

I. Professional Services

A. Journal Related Services:

1. Edito-in-Chief, IEEE MultiMedia, 2023-2025.
2. Associate Editor-in-Chief, IEEE MultiMedia, 2022.
3. Associate Editor, IEEE MultiMedia (2020 – till present).
4. Associate Editor, IEEE Transactions on Multimedia, 2015 – 2020.
5. Editor-in-chief, ACM SIGMM Online Magazine, 2007 – 2020.
6. Member, Editorial Board, Artificial Intelligence in Medicine, Elsevier Publishers, 2016 –

present.

7. Member, Editorial Board, Journal of Health Informatics Research, Springer Publishers, 2016 – present.
8. Member, Editorial Board, Multimedia Systems Journal, Springer, 2008 – till present.
9. Member, Editorial Board, Journal of Multimedia, Academy Publishers, 2006 – 2015.
10. Member, Editorial Board, International Journal of Multimedia Data Engineering and Management, Information Resources Management Association (IRMA), 2010 – till present.
11. Member of the Editorial Board of the Encyclopedia of Multimedia, Springer.
12. Member of the editorial board for the Journal of Multimedia Tools and Applications, Springer Publishers, Boston, MA, USA, 1995 - present.
13. Member, Editorial Board, Advances in Multimedia, Hindawi Publishers, 2007 – 2019.
14. Guest-editor, special issue on Video Analytics: Challenges, Algorithms, and Applications, IEEE Transactions on Multimedia, May 2018. (Guested edited with Prof. Y.-G. Jiang, Prof. S.-F. Chang, and Prof H. Kalva)
15. Guest-editor, special issue on *Multimedia Semantics*, Journal of Signal Processing Systems, Springer, 2010.
16. Guest-editor, special issue on *Multimedia* Authoring *& Presentation Techniques*, for ACM Multimedia Systems Journal, May 2000.
17. Guest-editor, special issue on *Techniques for Multimedia Presentation*, for the Journal of Multimedia Tools and Applications, November 2000.
18. Guest-editor, special issue on *Mobile Computing Environments for Multimedia Systems*, Journal of Multimedia Tools and Applications, July 1999.
19. Reviewer, National Research Foundation, Singapore, 2008.
20. Reviewer, ACM Transactions on Management Information Systems.
21. Reviewer, Graphical Models, Elsevier Publishers
22. Reviewer, IEEE Transactions on Visualization and Computer Graphics (TVCG), 2009.
23. Reviewer, ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP), 2008.
24. Reviewer, Journal of Systems Software, 2008.
25. Reviewer, IEEE Transactions on Digital Forensics and Security, 2008.
26. Reviewer, IEEE Transactions on Multimedia, 2008.
27. Reviewer, Knowledge and Information Systems, 2008.
28. Reviewer, International Journal on Computer Vision, 2008.
29. Reviewer, Journal of Information and Software Technology, 2008.
30. Reviewer, Journal of Electronic Imaging (JEI), 2008.
31. Reviewer, Journal of Visual Languages & Computing, 2008.
32. Reviewer, ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP), 2007.
33. Reviewer, IEEE Transactions on Digital Forensics and Security, 2007.
34. Reviewer, IEEE Transactions on Multimedia, 2007.
35. Reviewer, IEEE Journal on Selected Areas in Communication, 2007
36. Reviewer, Machine Vision and Applications Journal, 2007.
37. Reviewer, IEEE MultiMedia, 2007.
38. Reviewer, International Journal of Network Management, 2007.
39. Reviewer, IEEE Transactions on Computers, 2007

40. Reviewer, Computer & Graphics Journal, 2007.
41. Reviewer, IEEE Transactions on Digital Forensics and Security. 2006
42. Reviewer, IEEE Journal on Selected Areas in Communication, 2006
43. Reviewer, Machine Vision and Applications Journal, 2006
44. Reviewer, IEEE MultiMedia, 2006
45. Reviewer, International Journal of Network Management, 2006
46. Reviewer, IEEE Transactions on Computers, 2006
47. Reviewer, Very Large Databases (VLDB) Journal, 2005.
48. Reviewer, ACM Transactions on Multimedia Computing, Communications, and Applications, 2005.
49. Reviewer, ACM/Springer-Verlag Multimedia Systems, 2004.

B. Review, Panel, and Other Committee Services:

1. Panelist, National Science Foundation (NSF), 2017.
2. Panelist, National Science Foundation (NSF), 2015.
3. Co-Chair, IEEE Technical Committee on Multimedia Computing (TCMC) Special Interest Group on Video Analytics (SIGVA).
4. External Reviewer, Full Professor Promotion Review, City University of Hong Kong, 2014.
5. External Reviewer, Full Professor Promotion Review, University of Texas Southwestern Medical Center, Dallas, Texas, 2014.
6. External Reviewer for Ph.D. Dissertation, National University of Singapore, Singapore, 2014.
7. External Examiner for Ph.D. Dissertation, Bharathi Dasan University, India, 2014.
8. External Reviewer, Tenure Review, Nanyang Technological University, Singapore.
9. Panel Member, NSF CISE Panel, 2011.
10. External examiner for Ph.D. Dissertation, University of Ottawa, Canada, 2010.
11. External examiner for Ph.D. Dissertation, National Institute of Technology, Calicut, India, 2010.
12. Panel Member, American Association for the Advancement of Science, 2010.
13. Panel Member, NSF CISE Panel, 2009.
14. Panel Member, NSF CISE Panel, 2008
15. External Reviewer, Tenure Review, the University of Alabama in Huntsville.
16. External Reviewer, Tenure Review, National University of Singapore, Singapore.
17. Panel Member, US Army Research Office (ARO) proposal review.
18. Panel Member, NSF CISE Panel, 2007.
19. Panelist & Speaker, Pravasi Bharatiya Divas 2008, January 7-9, 2008, New Delhi.
20. Reviewer, US Army Research Office (ARO) Proposals.
21. Member, NSF Review Panel, Information & Data Management (IDM) 2004.
22. Member, NSF Review Panel, March 2003.
23. Member, NSF Review Panel, February 2003.
24. Member, National Science Panel (NSF) Review Panel, December 2002.

C. Conference Related Services:

1. General Co-Chair, ACM Multimedia 2024, Melbourne, Australia.
2. Technical Program Co-Chair of ACM Multimedia 2021, Chengdu, China

3. Member, Technical Program Committee, ACM International Conference on Multimedia Retrieval (ICMR), 2020.
4. Member, Technical Program Committee, IEEE International Conference on Health Informatics (ICHI), 2020.
5. Member, Technical Program Committee, International Conference on Pattern Recognition (ICPR), 2020.
6. History Preservations Chair, ACM Multimedia 2019, Seattle, USA.
7. Member, Steering Committee, ACM International Conference on Multimedia Retrieval (ICMR).
8. Member, Steering Committee, ACM International Conference on Health Informatics (ICHI).
9. Co-Chair, Open Source Software Competition, ACM Multimedia, Seoul, Korea, 2018.
10. Area Chair, IEEE International Conference on Multimedia and Expo (ICME), San Diego, CA, July 2018.
11. General Chair, 3rd International Workshop on Interactive and Spatial Computing (IWISC), Dallas, TX, April 2018.
12. Demonstrations Chair, ACM Multimedia, Mountain View, CA, October 2017.
13. Member, Program Committee, IEEE International Conference on Image Processing (ICIP), Beijing, China, September 2017.
14. Technical Program Committee (TPC) Co-Chair, IEEE International Conference on Multimedia and Expo (ICME), Hong Kong, July 2017.
15. Member, Program Committee, ACM Multimedia Systems (MMSys), 2016, 2017.
16. Area Chair, IEEE International Conference on Pattern Recognition (ICPR) 2016, 2017.
17. Plenary Speaker, Mexican Conference on Pattern Recognition (MCPR) 2016
18. Publicity Chair, ACM International Conference on Multimedia Retrieval (ICMR) 2016
19. Proceedings Chair ACM Multimedia (MM) 2016
20. General Co-Chair, IEEE International Conference on Health Informatics (ICHI) 2015
21. Area Chair, IEEE International Symposium on Multimedia (ISM) 2015
22. General Co-Chair, IEEE International Conference on Health Informatics (ICHI 2015), October 2015, Dallas, Texas.
23. Co-Chair, High Risk, High Reward papers, ACM Multimedia 2014.
24. General Chair, IEEE 2014 International Symposium on Haptic Audio-Visual Environments and Games (HAVE 2014).
25. TPC (Technical Program Committee) Co-Chair, Systems Track, IEEE International Conference on Health Informatics (ICHI) 2014, September 2014, Italy.
26. Workshop Co-Chair, IEEE International Symposium on Multimedia (ISM) 2014.
27. Member, Program Committee, IEEE ICASSP (International Conference on Acoustics, Speech, and Signal Processing) 2014 and 2015.
28. General Co-Chair, ACM International Conference on Multimedia Retrieval (ICMR), Dallas, TX 2013.
29. Publicity Co-Chair, IEEE International Symposium on Multimedia (ISM) 2013.
30. Member, Program Committee, 14th IEEE Symposium on World of Wireless, Mobile and Multimedia Networks (WoWMoM 2013).
31. Member, Steering Committee, ACM Information Hiding & Multimedia and Security (IH & MMMSec).
32. Member, Program Committee, 14th IEEE Symposium on World of Wireless, Mobile and

Multimedia Networks (WoWMoM 2013).

33. Member, Program Committee, IEEE International Conference on Semantic Computing (ICSC), 2013.
34. Member, Program Committee, IEEE 2012 International Symposium on Haptic Audio-Visual Environments and Games (HAVE 2012).
35. Member, Program Committee, IEEE International Conference on Healthcare Informatics 2013 (ICHI 2013), Philadelphia, USA.
36. Area Chair of Multimedia Communication and Computing, ISPAN 2012 - International Symposium on Pervasive Systems, Algorithms, and Networks (ISPAN), December 2012.
37. Member, Program Committee, Eighth IEEE International Workshop on Multimedia Information Processing and Retrieval (MIPR-2012), December 2012.
38. Demo Co-Chair, IEEE International Symposium on Multimedia (ISM) 2012.
39. Technical Program Co-Chair, 13th IEEE Symposium onÂ a World of Wireless, Mobile and Multimedia Networks (WoWMoM 2012).
40. Member, Program Committee, ACM Information Hiding & Multimedia and Security 2013, ACM Multimedia and Security (ACM MM&Sec) 2012, ACM MM&Sec 2011, and ACM MM&Sec 2010
41. Co-Chair, Best Paper Award Committee, IEEE International Symposium on Multimedia (ISM'11).
42. General Co-Chair, ACM Multimedia 2011, Phoenix, AZ, USA.
43. Member, Technical Program Committee, Wireless Health 2011.
44. Member, Technical Program Committee, IEEE International Workshop on Semantic Multimedia (ICSC-SMM'11) in conjunction with the Fifth IEEE International Conference on Semantic Computing.
45. Program Co-Chair, IEEE International Symposium on Multimedia (ISM) 2010, December 2010, Taiwan.
46. Member, Program Committee, 1st ACM International Conference on Health Informatics (IHI'10) and IHI 2011.
47. Member, Program Committee, ACM Multimedia 2010, October 2010, Florence, Italy.
48. Member, Program Committee, IEEE International Symposium on Haptic Audio-Visual Environments and Games (HAVE 2010),
49. Workshop Co-Chair, Fourth IEEE International Conference on Semantic Computing (ICSC'10), September 2010, Pittsburgh, PA.
50. Track co-Chair, *Multimedia and Peer-to-Peer Networking (MP2P),* the 19th IEEE International Conference on Computer Communications and Networks (ICCCN 2010), Zurich, Switzerland in August 2010.
51. Member, Program Committee, 3rd International Conference on PErvasive Technologies Related to Assistive Environments (PETRA), 2009, 2010 and 2011.
52. General Chair, IEEE Workshop on Multimedia and Semantic Technologies (MUST 2010), Busan, Korea, May 2010.
53. Special Session Co-Chair, *Processing Data Streams from Body Sensor Networks*, ACM International Conference on Multimedia Information Retrieval (MIR), Philadelphia, March 2010.
54. General Chair, IEEE-DSMSA 2009 Workshop (The IEEE International Workshop on Data Semantics for Multimedia Systems and Applications), hosted along with IEEE International Symposium on Multimedia (ISM) 2009.

55. Member, Program Committee, The Fifth IEEE International Workshop on Multimedia Information Processing and Retrieval (MIPR-2009), San Diego, California, USA, December 14-16, 2009
56. General Co-Chair, Workshop on Next Generation Networks, WonGen'08, Bangalore, India.
57. General Co-Chair, Workshop on Multimedia Aspects in Pervasive Healthcare (MMPH'09), in conjunction with IEEE International Conference on Multimedia and Expo (ICME), 2009.
58. General Co-Chair, Workshop on Pervasive Computing Systems and Infrastructures (PCSI), April 2009.
59. Session Chair, ISM2009 (IEEE International Symposium on Multimedia), San Diego, CA.
60. Session Chair, International Conference on Semantic Computing (ICSC) 2009, Berkeley, CA.
61. Panel Co-Chair, International Conference on Semantic Computing (ICSC) 2009, Berkeley, CA.
62. Member, Program Committee, ACM Multimedia 2009.
63. Member, Program Committee, ACM Multimedia and Security (ACM MM&Sec) 2009.
64. Member, Program Committee, The First International Conference on Advances in Multimedia, IARIA, Colmar, France, July 2009.
65. Proceedings Chair, ACM Multimedia 2008, Vancouver, Canada.
66. Workshops Co-Chair for IEEE International Symposium on Multimedia (ISM'08), December 15-17, 2008, Berkeley, CA, USA
67. Publicity Co-Chair, PETRA'08.
68. Track Co-Chair, Multimedia Networking, IEEE International Conference on Computer Communications and Networks (ICCCN) 2008.
69. Member, Program Committee, IEEE International Conference on Computer Communications and Networks (ICCCN) 2008.
70. Session Chair, ACM Multimedia 2008, Vancouver, Canada.
71. Session Chair, ACM Multimedia Modeling Conference (MMM'08), Kyoto, Japan.
72. Member, Program Committee, ACM Multimedia 2008.
73. Member, Program Committee, ACM Multimedia and Security (ACM MM&Sec) 2008.
74. Member, Program Committee, 9th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks 2008 (WoWMoM 08)
75. Member, Program Committee, International Workshop on Ambient Media Delivery and Interactive Television (AMDIT08).
76. Workshops Co-Chair for IEEE International Symposium on Multimedia (ISM'08), December 15-17, 2008, Berkeley, CA, USA.
77. Member, Program Committee, The Fourth IEEE International Workshop on Multimedia Information Processing and Retrieval (MIPR-2008), December 2008, Berkeley, CA, USA.
78. Member, Program Committee, Int conf on Communication, Convergence, and Broadband Networking, during July 15-17, 2008, Bangalore.
79. Member, Program Committee, UBICOMM 2008, the Second International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies, Valencia, Spain, on September 29 - October 4, 2008.
80. Reviewer, ACM BodyNets 2008
81. General Co-chair, ACM Multimedia Security Workshop, Dallas, September 20-21, 2007.
82. PC Member, ACM Multimedia 2007.

83. Program Vice co-chair of Image and Video Processing Track at 2007 IEEE International Symposium on Multimedia (ISM'07) which will be held in Taiwan on December 2007.
84. Special Sessions Organizing Co-Chair, First IEEE International Conference on Semantic Computing (IEEE ICSC2007) September 2007, Irvine, CA.
85. Session Chair, ACM Multimedia 2007, Augsburg, Germany.
86. Session Chair, IEEE Broadnets 2007, Raleigh, NC.
87. Member, Program Committee, ACM Multimedia 2007.
88. Member, Program Committee, UBICOMM 2007, (The First International Conference on Mobile Ubiquitous Computing, Systems, Services, and Technologies).
89. Member, Program Committee, International Conference on Multimedia Systems & Applications (IMSA) 2007.
90. Member, Program Committee, IASTED International Conference on Wireless and Optical Communications (WOC 2007), Montreal, Canada from May 30-June 1, 2007.
91. Member, Program Committee, IEEE BroadNets 2007.
92. Member, Program Committee, International Conference on Multimedia Systems & Applications (IMSA) 2007.
93. Member, Program Committee, IASTED International Conference on Wireless and Optical Communications (WOC 2007), Montreal, Canada from May 30-June 1, 2007.
94. Member, Program Committee, International MultiMedia Modeling Conference (MMM) 2007
95. PC Member, ACM Multimedia 2004 Conference, November 2006.
96. PC Member, International Workshop on Multimedia and Web Design, 13 December 2004, Miami, Florida, USA.
97. PC Member, ACM Multimedia 2004 Conference Short Papers Track, November 2004.
98. PC Member, Symposium on Document Engineering, McLean, VA, November 2004.
99. Associate Chair, ACM Multimedia, Berkeley, CA, November 2003.
100. Co-organizer, Special Session on Multimedia Authoring and Presentation, IEEE International Conference on Multimedia & Expo, ICME 2003, Baltimore, MD, July 2003.
101. Member, Program Committee, ACM SIGWEB Symposium on Document Engineering, (SDE '01), McLean, VA, November 2002.
102. Member, Program Committee, 8th International Workshop on Multimedia Information Systems (MIS 2002).
103. Member, Program Committee, 15th International Conference on Computer Communication (ICCC 2002), August 2002.
104. Member, Program Committee, Internet and Multimedia Systems and Applications (IMSA) conferences, 2000, 2001, & 2002.
105. Member, Program Committee, Multimedia Computing and Networking 2002 (MMCN'02), San Jose, California, from January 21-25, 2002.
106. Member, Program Committee, IEEE International Conference on Computer Communication and Networks (ICCCN 2001), Scottsdale, Arizona, October 2001.
107. Member, Program Committee, ACM SIGWEB Symposium on Document Engineering, (SDE '01), Atlanta, Georgia, November 2001.
108. Associate Chair: ACM Multimedia'99, Orlando, November 1999 and ACM Multimedia 2000, Los Angeles.
109. Member, Program Committee, International Workshop on Multimedia Database Management Systems, August 1999, New York State, USA.

110. Member, Program Committee of the International Conference on Internet and Multimedia Systems, Applications (IMSA), Grand Bahamas, October 1999.
111. Member, Program Committee of the Second IASTED/ISMM International Conference on Distributed Multimedia Systems and Applications, Stanford, CA, USA, August 1995.
112. Member, Program Committee, International Workshop on Multimedia Database Management Systems, August 5-7, 1998, Fairborn, OH, USA.
113. Tutorial Chair, Singapore International Conference on Networking (SICON'98), Singapore, July 1998.

II. Administrative Services

1. Member, Strategic Vision, Computer Engineering Program, Erik Jonsson School of Engineering and Computer Science.
2. Member, Assessment Committee, Computer Engineering Program, Erik Jonsson School of Engineering and Computer Science.
3. Director, University of Texas, Dallas Institute for Spatial and Interactive Computing (UT-DIISC) 2015 – 2018.
4. Director, Ph.D. Studies, the University of Texas at Dallas, 2010-2018.
5. Member, Faculty Search Committee, Computer Engineering Program, the University of Texas at Dallas, 2011.
6. Member, Faculty Search Committee, Computer Science Department, the University of Texas at Dallas, 2011.
7. Vice-chair, Academic Calendar Committee, 2008-2010.
8. Member, Faculty Committee for Computer Engineering Program.
9. Internal Reviewer, School of Arts & Humanities Program Review, Spring 2008
10. Member, School-wide Academic Affairs Committee, 2007-2008.
11. Member, Faculty Senate, the University of Texas at Dallas, 2006.
12. Chair, Graduates Admissions Committee, Department of Computer Science, the University of Texas at Dallas, November 2004 - 2010.
13. Member, Graduates Admissions Committee, Department of Computer Science, the University of Texas at Dallas, November 2001 – till date.
14. Member, Teaching Assistants Committee, Department of Computer Science, the University of Texas at Dallas, December 2003 - present.
15. Member, Under-graduate Program Committee, Telecom Engineering Program, the University of Texas at Dallas.
16. Member, Outreach Committee, Computer Engineering Program, the University of Texas at Dallas.
17. Member, Supervisory Committee of several Ph.D. students.