

Publications

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On-line copies of my publications can be found at:

<http://vorlon.case.edu/~mcc14/research/publications.html>

Names of student co-authors whose research I have supervised, including visiting students, are underlined. The publications included in my application package are marked with an arrow (→) sign.

Journal Publications (*Refereed*)

1. “A Laparoscopic Telesurgical Workstation.” M. C. Cavusoglu, F. Tendick, M. Cohn, and S. S. Sastry. In *IEEE Transactions on Robotics and Automation*, Vol. 15, No. 4, August 1999, pp. 728-739.
2. “A Virtual Environment Testbed for Training Laparoscopic Surgical Skills.” F. Tendick, M. Downes, T. Goktekin, M. C. Cavusoglu, D. Feygin, X. Wu, R. Eyal, M. Hegarty, and L. W. Way. In *Presence*, Vol. 9, No. 3, June 2000, pp. 236-255.
3. “Design of Bilateral Teleoperation Controllers for Haptic Exploration and Telemanipulation of Soft Environments.” M. C. Cavusoglu, A. Sherman, and F. Tendick. In *IEEE Transactions on Robotics and Automation*, Vol. 18, No.4, August 2002, pp. 641-647.
4. “A Critical Study of the Mechanical and Electrical Properties of the Phantom™ Haptic Interface and Improvements for High Performance Control.” M. C. Cavusoglu, D. Feygin, and F. Tendick. In *Presence*, Vol. 11, No. 6, December 2002, pp. 555-568.
5. “Robotics for Telesurgery: Second Generation Berkeley/UCSF Laparoscopic Telesurgical Workstation and Looking towards the Future Applications.” M. C. Cavusoglu, W. Williams, F. Tendick, and S. S. Sastry. In *Industrial Robot*, Special Issue on Medical Robotics, Vol. 30, No.1, January 2003, pp 22-29.
6. “In Touch with Robotics: Neurosurgery for the Future.” N. Nathoo, M. C. Cavusoglu, M. A. Vogelbaum, and G. H. Barnett. In *Neurosurgery*. Vol. 56, No.3, March 2005, pp.421-433.
7. “GiPSi: A Framework for Open Source/Open Architecture Software Development for Organ Level Surgical Simulation.” M. C. Cavusoglu, T. Goktekin, F. Tendick. In *IEEE Transactions on Information Technology in Biomedicine*. Vol. 10, No. 2, April 2006, pp. 312-321.
- 8. “Intelligent Control Algorithms for Robotic-Assisted Beating Heart Surgery.” O. Bebek and M. C. Cavusoglu. In *IEEE Transactions on Robotics*, Vol. 23, No. 3, June 2007, pp. 468-480.
- 9. “Design and Characterization of a Novel Hybrid Actuator Using Shape Memory Alloy and DC Micro-Motor for Minimally Invasive Surgery Applications.” V. R. C. Kode, and M. C. Cavusoglu. In *IEEE/ASME Transactions on Mechatronics*, 2007. (*In Press*).
- 10. “Quantitative Comparison of Bilateral Teleoperation Systems Using μ Synthesis.” K. Kim, M. C. Cavusoglu, and W. K. Chung. In *IEEE Transactions on Robotics*, 2007. (*In Press*).

Under Review

1. “High Fidelity Haptic Rendering of Frictional Contact with Deformable Objects in Virtual Environments Using Multi-Rate Simulation.” P. Jacobs and M. C. Cavusoglu. Submitted to the *IEEE Transactions on Robotics*, 2006. (*Submitted – Under Review – In revision*).

Book Chapters

1. “Telesurgery and Surgical Simulation: Haptic Interfaces to Real and Virtual Surgical Environments.” M. C. Cavusoglu, F. Tendick and S. S. Sastry. In McLaughlin, M. L., Hespanha, J. P., and Sukhatme, G., editors. *Touch in Virtual Environments*. IMSC Series in Multimedia. Prentice-Hall. 2001.

2. "Medical Robotics in Surgery." M. C. Cavusoglu. In M. Akay, editor, *Wiley Encyclopedia of Biomedical Engineering*, John Wiley and Sons, Inc. 2006.

Conference Publications (*Full-Paper Refereed Archival Conferences*)

1. "Human Hand Trajectory Analysis in Point-and-Direct Telerobotics." T. T. Blackmon, M. C. Cavusoglu, F. Lai, and L. W. Stark. In *Proceedings of the 8th International Conference on Advanced Robotics (ICAR'97)*, Monterey, CA, July 7-9, 1997, pp. 927-932.
2. "A Hybrid System Approach to Contact Stability and Force Control in Robotic Manipulators." M. C. Cavusoglu, J. Yan, and S. S. Sastry. In *Proceedings of the 12th IEEE International Symposium on Intelligent Control (ISIC'97)*, Istanbul, Turkey, July 16-18, 1997, pp. 143-148.
3. "Human Machine Interfaces for Minimally Invasive Surgery." F. Tendick and M. C. Cavusoglu. In *Proceedings of the 19th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS'97)*, Chicago, IL, October 30-November 2, 1997, pp. 2771-2776.
4. "Modeling the Dynamics of the Human Thigh for a Realistic Echographic Simulator with Force Feedback." D. d'Aulignac, M. C. Cavusoglu, and C. Laugier. In *Proceedings of the Second International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI'99)*, Cambridge, England, September 19-22, 1999.
5. "Towards a Realistic Echographic Simulator with Force Feedback." D. d'Aulignac, C. Laugier, and M. C. Cavusoglu. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'99)*, Kyongju, Korea, October 17-21, 1999, pp. 727-732.
6. "Multirate Simulation for High Fidelity Haptic Interaction with Deformable Objects in Virtual Environments." M. C. Cavusoglu, F. Tendick. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2000)*, San Francisco, CA, April 24-28, 2000, pp. 2458-2465.
7. "Maximizing the Sensation of Compliance in Teleoperative Surgery." F. Tendick, M.C. Cavusoglu, N. Dhruv, and A. Sherman. In *Proceedings of the Eighth International Symposium on Robotics with Applications, part of the World Automation Congress (WAC 2000)*, Maui, HI, June 11-16, 2000. **Joseph H. Engelberger best paper award.**
8. "Comparison of Teleoperator Control Architectures for Palpation." A. Sherman, M. C. Cavusoglu, F. Tendick. In *Proceedings of the ASME Dynamic Systems and Control Division, part of ASME International Mechanical Engineering Congress and Exposition (IMECE 2000)*, Orlando, Florida, November 5-10, 2000, vol. 2, pp. 1261-1268.
9. "Bilateral Controller Design for Telemanipulation in Soft Environments." M. C. Cavusoglu, A. Sherman, F. Tendick. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2001)*, Seoul, Korea, May 21-26, 2001, pp.1045-1052.
10. "Workspace Analysis of Robotic Manipulators for a Teleoperated Suturing Task." M. C. Cavusoglu, I. Villanueva, and F. Tendick. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2001)*, Maui, HI, October 29-November 3, 2001, pp. 2234-2239.
11. "Kalman Filter Analysis for Quantitative Comparison of Sensory Schemes in Bilateral Teleoperation Systems." M. C. Cavusoglu, and F. Tendick. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2003)*, Taipei, Taiwan, May 12-17, 2003, pp. 2818-2823.
12. "GiPSi: A Draft Open Source/Open Architecture Software Development Framework for Surgical Simulation," T. Goktekin, M.C. Cavusoglu, F. Tendick, and S. S. Sastry. In *Proceedings of the International Symposium on Medical Simulation, (Lecture Notes in Computer Science, Vol. 3078, Springer-Verlag, Berlin Heidelberg)*, Cambridge, MA, June17-18, 2004, pp. 240-248.
13. "Computationally Efficient Cardiac Bioelectricity Models Toward Whole-Heart Simulation" N. A. Wedge, M. S. Branicky, and M. C. Cavusoglu. In *Proceedings of the 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS 2004)*, San Francisco, CA, September 1-5, 2004, pp.3027-3030.

14. "Quantitative Comparison of Bilateral Teleoperation Systems Using H_∞ Framework." K. Kim, M. C. Cavusoglu, and W. K. Chung. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2004)*, Sendai, Japan, September 28 - October 2, 2004, pp. 2229-2234.
15. "Control Algorithms for Active Relative Motion Cancelling for Robotic Assisted Off-Pump Coronary Artery Bypass Graft Surgery." M. C. Cavusoglu, J. Rotella, W. S. Newman, S. Choi, J. Ustin, and S. S. Sastry. In *Proceedings of the 12th International Conference on Advanced Robotics (ICAR 2005)*, Seattle, WA, USA, July 18th-20th, 2005, pp. 431-438. **Finalist for the conference best paper award.**
16. "Design and Characterization of a Novel Hybrid Actuator Using Shape Memory Alloy and DC Motor for Minimally Invasive Surgery Applications." V. R. Kode, M. C. Cavusoglu, and M. Tabib-Azar. In *Proceedings of the IEEE International Conference on Mechatronics and Automation (ICMA 2005)*, Niagara Falls, Ontario, Canada, July 29-August 1, 2005, pp. 416-420.
17. "Predictive Control Algorithms Using Biological Signals for Active Relative Motion Canceling in Robotic Assisted Heart Surgery." O. Bebek, M.C. Cavusoglu. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2006)*, Orlando, FL, May 15-19, 2006, pp. 237-244.
18. "Assessment of Event-Related Desynchronization in Stroke Survivors Performing Shoulder-Elbow Movements." M. Fu, J. Daly, M.C. Cavusoglu. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2006)*, Orlando, FL, May 15-19, 2006, pp. 3158-3164.
19. "Model Based Control Algorithms for Robotic Assisted Beating Heart Surgery." O. Bebek and M. C. Cavusoglu. In *Proceedings of the 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, August 30-September 3, 2006, New York City, USA, pp. 823-828.
20. "A Detection Scheme for Frontalis and Temporalis Muscle EMG Contamination of EEG Data." M. J. Fu, M. C. Cavusoglu, and J. J. Daly. In *Proceedings of the 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, August 30-September 3, 2006, New York City, USA, pp. 4514-4518.
21. "Whisker Sensor Design for Three Dimensional Position Measurement in Robotic Assisted Beating Heart Surgery." O. Bebek and M.C. Cavusoglu. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2007)*, Rome, Italy, April 10-14, 2007, pp. 225-231.
22. "High Fidelity Haptic Rendering of Stick-Slip Frictional Contact with Deformable Objects in Virtual Environments Using Multi-Rate Simulation." P. Jacobs and M.C. Cavusoglu. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2007)*, Rome, Italy, April 10-14, 2007, pp. 117-123.
23. "A Framework for Quantitative Comparison of Bilateral Teleoperation Systems Using μ -Synthesis." K. Kim, M.C. Cavusoglu, and W. K. Chung. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2007)*, Rome, Italy, April 10-14, 2007, pp. 1637-1644.
24. "Ontology Based Design for Integrative Simulation of Human Physiology." E.Z. Erson, M.C. Cavusoglu. In *Proceedings of the International Symposium on Health Informatics and Bioinformatics*, Antalya, Turkey, April 30-May 2, 2007.
25. "Improved Prediction of Heart Motion Using an Adaptive Filter for Robot Assisted Beating Heart Surgery." T.J. Franke, O. Bebek, and M.C. Cavusoglu. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2007)*, San Diego, CA, USA, October 29, November 2, 2007. (*In press*).

Under Review

1. "Design of an Interface Model for Integrative Simulation of Human Physiology." E.Z. Erson, M.C. Cavusoglu. Submitted to the *Pacific Symposium on Biocomputing (PSB 2008)*, Big Island of Hawaii, HI, USA, January 4-8, 2008. (*Under Review*).

2. “Integrative Simulation Framework for Human Physiology.” E.Z. Erson, M.C. Cavusoglu. Submitted to the *IEEE/NIH BISTI 2007 Life Science Systems and Applications Workshop (LISA 2007)*, Bethesda, MD, USA, November 8-9, 2007. (Under Review).

Invited Conference Publications (Archival Conferences)

1. “Robotics for Telesurgery: Second Generation Berkeley/UCSF Laparoscopic Telesurgical Workstation and Looking towards the Future Applications.” M. C. Cavusoglu, W. Williams, F. Tendick, S. S. Sastry. In *Proceedings of the 39th Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 3-5, 2001. (Invited).

Other Conference Publications (Abstract Reviewed)

1. “Laparoscopic Telesurgical Workstation.” M. C. Cavusoglu, M. Cohn, F. Tendick, and S. S. Sastry. In *Proceedings of the SPIE International Symposium on Biological Optics (BIOS'98)*, San Jose, CA, January 24-30, 1998, pp. 296-303.
2. “Development of Virtual Environments for Training Skills and Reducing Errors in Laparoscopic Surgery.” F. Tendick, M. S. Downes, M. C. Cavusoglu, and L. W. Way. In *Proceedings of the SPIE International Symposium on Biological Optics (BIOS'98)*, San Jose, CA, January 24-30, 1998, pp. 36-44.
3. “Virtual Environments for Training Critical Skills in Laparoscopic Surgery.” M. S. Downes, M. C. Cavusoglu, W. Gantert, L. W. Way, and F. Tendick. In *Proceedings of Medicine Meets Virtual Reality VI (MMVR'98)*, San Diego, CA, January 28-31, 1998, pp. 316-322.
4. “Framework for Open Source Software Development for Organ Simulation in the Digital Human.” M. C. Cavusoglu, T. Goktekin, F. Tendick and S. S. Sastry. In *Proceedings of the International Conference on High Performance Computing (HIPC 2002)*, (Lecture Notes in Computer Science, Vol.2552, Springer-Verlag, Berlin), Bangalore, India, December 18-21, 2002, pp. 713-714.
5. “GiPSi: A Draft Open Source/Open Architecture Software Development Framework for Surgical Simulation.” M.C. Cavusoglu, T. Goktekin, F. Tendick and S. S. Sastry. Poster presented at the *Digital Biology: the Emerging Paradigm Symposium*, NIH, Bethesda, MD, November 6-7, 2003.
6. “Virtual Environments for Surgical Simulations over Best-Effort Networks.” M.C. Cavusoglu and V. Liberatore. Poster presented at the *Digital Biology: the Emerging Paradigm Symposium*, NIH, Bethesda, MD, November 6-7, 2003.
7. “GiPSi: A Draft Open Source/Open Architecture Software Development Framework for Surgical Simulation.” M.C. Cavusoglu, T. Goktekin, F. Tendick and S. S. Sastry. In *Proceedings of Medicine Meets Virtual Reality XII (MMVR'04)*, Newport Beach, CA, January 15 – 17, 2004.
8. “Virtual Reality as a Training Tool for Endoscopic Neurosurgical Procedures.” S. Manjila, M. C. Cavusoglu, N. Brown, and A. R. Cohen. The 33rd Annual Meeting of the AANS/CNS Section on *Pediatric Neurological Surgery*, San Francisco, CA, December 8-11, 2004. **Hydrocephalus Award Candidate.**
9. “GiPSiNet: a Middleware for Networked Surgical Simulations.” V. Liberatore, M. C. Cavusoglu, and Q. Cai. In *Proceedings of the IASTED Telehealth 2005*, Banff, Canada, June 19-21, 2005.
10. “Virtual Environment-Based Training Simulator for Endoscopic Third Ventriculostomy.” N. Brown, S. Natsupakpong, S. Johannsen, S. Manjila, Q. Cai, V. Liberatore, A. R. Cohen, and M. C. Cavusoglu. In *Proceedings of Medicine Meets Virtual Reality XIV (MMVR'06)*, Long Beach, CA, January 24 – 27, 2006, pp. 73-75.
11. “Evaluation Methods of a Middleware for Networked Surgical Simulations.” Q. Cai, V. Liberatore, M. C. Cavusoglu, and Y. Yoo. In *Proceedings of Medicine Meets Virtual Reality XIV (MMVR'06)*, Long Beach, CA, January 24 – 27, 2006, pp.76-78.
12. “GiPSiNet: An Open Source/Open Architecture Network Middleware for Surgical Simulations.” Q. Cai, V. Liberatore, and M. C. Cavusoglu,. In *Proceedings of Medicine Meets Virtual Reality XIV (MMVR'06)*, Long Beach, CA, January 24 – 27, 2006, pp. 316-321.

Technical Reports

1. "Closed Loop Position and Force Control of Anthrobot III Robot Hand." M. C. Cavusoglu, G. Avkarogullari, and I.S. Koc. B.S. Project Report, (also report for TUBITAK AEAGE Project No 95-20-100), Department of Electrical and Electronic Engineering, Middle East Technical University, Ankara, Turkey, Spring 1996.
2. "Control of a Telesurgical Workstation." M. C. Cavusoglu. M.S. Project Report. University of California, Berkeley, May 20, 1997. Also UC Berkeley ERL Memo M97/35, May 1997.
3. "Multirate Simulation for High Fidelity Haptic Interaction with Deformable Objects in Virtual Environments." M. C. Cavusoglu, F. Tendick. UC Berkeley ERL Memo M00/5, January 24, 2000.
4. "Telesurgery and Surgical Simulation: Design, Modeling, and Evaluation of Haptic Interfaces to Real and Virtual Surgical Environments." M. C. Cavusoglu. PhD Thesis. University of California, Berkeley, August 23, 2000. Also UC Berkeley ERL Memo M00/43, August 2000.
5. "Kinematics and Dynamics of Phantom^(TM) model 1.5 Haptic Interface." M. C. Cavusoglu, D. Feygin. UC Berkeley ERL Memo M01/15, March 20, 2001.
6. "GiPSi: A Draft Open Source/Open Architecture Software Development Framework for Surgical Simulation," T. Goktekin and M.C. Cavusoglu. Technical Report, Case Western Reserve University, March 2004.
7. "Issues in Development of High Confidence Medical Robotic Systems, Medical Simulations, and Networked Virtual Environments for Surgical Training," M. C. Cavusoglu. Position paper for *High Confidence Medical Device Software and Systems (HCMDSS) Workshop*, Philadelphia, PA, June 2-3, 2005.

Video

- "Laparoscopic Telesurgical Workstation." M. C. Cavusoglu, M. Cohn, F. Tendick, and S. S. Sastry. In *Video Proceedings of the IEEE International Conference on Robotics and Automation (ICRA'99)*, Detroit, MI, May 10-15, 1999.

Software

- GiPSi (General Physical Simulation Interface) open source/open architecture framework for surgical simulation, version 1.0, March 2004. Available at: <http://gipsi.case.edu/>

Invited Talks

1. "Robotic Telesurgical Workstation for Laparoscopy," Cavusoglu, M.C. Presented at Laboratoire d'Automatique De Grenoble, Grenoble, France, June 1998.
2. "Haptic Interfaces for Real and Virtual Surgery," Cavusoglu, M.C. Presented at NASA Ames Research Center, Moffett Field, CA, March 13, 2000.
3. "Telesurgery and Surgical Simulation: Haptic Interfacing to Real and Virtual Surgical Environments," Cavusoglu, M.C.
 - a. Presented at Carnegie Mellon University, Robotics Institute, Pittsburgh, PA, May 17, 2000.
 - b. Presented at Middle East Technical University, Dept. of Electrical and Electronic Eng., Ankara, Turkey, September 2000.
 - c. Presented at INRIA Rhone-Alpes Research Center, Grenoble, France, April 2001.
4. "Millirobotics for Minimally Invasive Telesurgery," Cavusoglu, M.C., Sastry, S.S. Presented at Touch in Virtual Environments: a One Day Conference on Haptics, University of Southern California, Los Angeles, CA, February 23, 2001.
5. "Open Source / Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C. Presented at the DARPA/NSF Joint BioComp PI Meeting, Monterey, CA, November 27-30, 2001.

6. "Surgical Simulation: Virtual Environments Based Surgical Training Simulators to Open Source Simulation Development for the Digital Human," Cavusoglu, M.C. Presented at Case-Western Reserve University, Dept. of Electrical Eng. and Computer Sci., Cleveland, OH, February 2002.
7. "Robotics for Telesurgery: Second Generation Berkeley / UCSF Laparoscopic Telesurgical Workstation and Looking towards the Future," Cavusoglu, M.C.
 - a. Presented at Case-Western Reserve University, Dept. of Electrical Eng. and Computer Sci., Cleveland, OH, February 2002.
 - b. Presented at Carnegie Mellon University, Dept. of Biomedical Engineering and Robotics Institute, Pittsburg, PA, April 2002.
 - c. Presented at University of Maryland, Dept. of Mechanical Engineering, College Park, MD, April 2002.
 - d. Presented at Johns Hopkins University, Dept. of Computer Science and Department of Mechanical Engineering, April 2002.
 - e. Presented at University of British Columbia, Dept. of Electrical and Computer Engineering, Vancouver, BC, May 2002.
8. "Open Source / Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C.
 - a. Presented at the DARPA BioComp PI Meeting, Washington, DC, May, 2002.
 - b. Presented at the Digital Human Project Unified Ontology Planning Meeting, National Institutes of Health, Bethesda, MD, July 2002.
9. "Robotic and Computer Assisted Surgical Systems," Cavusoglu, M.C. Presented at the Turkish Automatic Control Conference, Ankara, Turkey, September, 2002
10. "Applications of Modeling and Simulation in Medicine and Biology," Cavusoglu, M.C. Presented at the Turkish Automatic Control Conference, Ankara, Turkey, September, 2002.
11. "Robotics for Telesurgery," Cavusoglu, M.C. Presented at Koc University, Istanbul, Turkey, December 2002.
12. "Robotics for Telesurgery: Second Generation Berkeley / UCSF Laparoscopic Telesurgical Workstation and Looking towards the Future," Cavusoglu, M.C. Presented at Bilkent University, Ankara, Turkey, January 2003.
13. "GiPSi: A Draft Open Source/Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C., Goktekin, T. Presented at the Digital Human Project Geometry Workshop, at the MMVR Conference, Newport Beach, CA, January 2003.
14. "Robotic Telesurgery and Surgical Simulation," Cavusoglu, M.C. Presented at the Cleveland FES Center, Cleveland, OH, July 2003.
15. "*Tutorial* – Simulation for Medical Training," Liu, A., Cotin, S., Cavusoglu, M.C., Bowyer, M. Presented at the Medical Image Computing and Computer-Assisted Intervention Conference (MICCAI 2003), Montreal, Canada, November 2003.
16. "*Tutorial* – Medical Simulation: The State-of-the-Art and Beyond," Liu, A., Cavusoglu, M.C., Cotin, S., Bowyer, M. Presented at the Medicine Meets Virtual Reality Conference (MMVR 2004), Newport Beach, CA, January 2004.
17. "GiPSi: A Draft Open Source/Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C. Presented at the Interoperability Standards Panel, at the Medicine Meets Virtual Reality Conference (MMVR 2005), Long Beach, CA, January 2005.
18. "Robotic Beating Heart Surgery: Design of Next-Generation Robotic Telesurgical Systems," Cavusoglu, M.C. Presented at the University of California, Berkeley, Berkeley, CA, January 26, 2005.
19. "GiPSi: An Open Source/Open Architecture Software Development Framework for Organ Level Simulation," Cavusoglu, M.C. Presented at the Ohio Aerospace Institute, Brook Park, OH, June 9, 2005.

20. "GiPSi: An Evolving Open Source/Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C. Presented at the Interoperability Standards Panel, at the Medicine Meets Virtual Reality Conference (MMVR 2006), Long Beach, CA, January 2006.
21. "GiPSi: An Evolving Open Source/Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C. Presented at the Center for Integration of Medicine and Innovative Technology, Boston, MA, June 2006.
22. "GiPSi: An Evolving Open Source/Open Architecture Software Development Framework for Surgical Simulation," Cavusoglu, M.C. Presented at the Stanford University Medical Media and Information Technologies (SUMMIT) Center, Palo Alto, CA, August 29, 2006.
23. "Virtual Reality Simulation as a Training Device for Minimally Invasive Neurosurgical Procedures," Cohen, A. and Cavusoglu, M.C. Presented at the Case Western Reserve University Department of Biomedical Engineering Seminar Series, Cleveland, OH, November 2, 2006.
24. "*Tutorial* – Virtual Environment-Based Surgical Training Simulators and Open Source/Open Architecture Surgical Simulation Development," Cavusoglu, M.C. Presented at the International Symposium on Health Informatics and Bioinformatics, Antalya, Turkey, May 1, 2007