CURRICULUM VITAE

MOSTAFA A. BASSIOUNI

EDUCATION

Ph.D. in Computer Science,	Pennsylvania State University,	1982
M.Sc. in Computer Science,	Alexandria University,	1977
B.Sc. in Computer Science,	Alexandria University,	1974

CURRENT AFFILIATION

Professor of Computer Science

Co-Director, Computer Network and Security Lab

Department of Electrical Engineering and Computer Science-Computer Science Division

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EMPLOYMENT HISTORY

1995-present: Professor of Computer Science, University of Central Florida

1987-1995: Associate Professor of Computer Science, University of Central Florida Assistant Professor of Computer Science, University of Central Florida

AWARDS AT THE UNIVERSITY OF CENTRAL FLORIDA

- * Excellence in Undergraduate Teaching Award, College of Engineering & Computer Science, 2013.
- * UCF Teaching Incentive Program (TIP) Award, 2009/2010.
- * UCF Research Incentive Award (RIA), 2004/2005.
- * UCF Teaching Incentive Program (TIP) Award, 2003/2004.
- * Distinguished Research Lecturer Award, College of Engineering & Computer Science, 2003.
- * UCF Teaching Incentive Program (TIP) Award, 1998/1999.
- * Distinguished Researcher Award, College of Arts and Science, 1995.

EDITORSHIPS

- * Associate Editor, The Computer Journal- Oxford University Press, http://comjnl.oxfordjournals.org.
- * Editor-in-Chief, Journal of Telecommunications System & Management, OMICS Publishing Group, http://omicsgroup.org/journals/jtsmhome.php.
- * Founding Editor-in-Chief, Electronics- Peer-reviewed Journal, Digital Publishing Institute (MDPI), Basel, Switzerland, http://www.mdpi.com/journal/electronics.
- * Editorial Board Member, Communications and Networking- International Scholarly Research Network (ISRN) Journal- Hindawi Publishing, http://www.isrn.com/journals/cn/.
- * Editorial Board Member, International Journal on Advances on Networks and Services, Published by the International Academy, Research and Industry Association (IARIA), http://www.iariajournals.org/networks_and_services.
- * Editorial Board Member, Journal on Communication Technology, ICT Academy of Tamil Nadu Publishing, http://www.ictact.in/Pages/journalintro.aspx?JID=2&Name=intro

PUBLICATIONS

Published 195 articles in various computer science journals (55), refereed book chapters (7), Editorials (3) and conference proceedings (130).

RECENT PUBLICATIONS

- * Amerah Alabrah and Mostafa Bassiouni "Efficient user and broadcast authentication scheme for WSNs" to appear in Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC'14), Istanbul, Turkey, April 6-9, 2014.
- * Amerah Alabrah, Jeffrey Cashion and Mostafa Bassiouni "Enhancing security of cookie-based sessions in mobile networks using sparse caching" International Journal of Information Security- Springer Publishing, online version published December 2013, DOI: 10.1007/s10207-013-0223-8.
- * Wei Dai and Mostafa Bassiouni "An improved task assignment scheme for Hadoop running in the clouds" Journal of Cloud Computing, Springer Publishing, Vol. 2:23, December 2013, pp. 1-16.

- * Amerah Alabrah and Mostafa Bassiouni "Robust and Fast Authentication of Session Cookies in Collaborative and Social Media Using Position Indexed Hashing" Proceedings of IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (COLLABORATECOM 2013) Austin, Texas, October 20–23, 2013.
- * M. Akbas, R. Avula, M. Bassiouni, and D. Turgut, "Social Network Generation and Friend Ranking Based on Mobile Phone Data" accepted for publication in *Proceedings of the IEEE International Communications Conference Ad-hoc and Sensor Networking Symposium* (ICC'13-AHSN), Budapest, Hungary, June 9-13, 2013.
- * S. Tariq, M. Bassiouni, G. Li "Improving Fairness of OBS Routing Protocols in Multimode Fiber Networks" *Proceedings of IEEE International Conference on Computing, Networking and Communications* (ICNC 2013), San Diego, CA, USA, January 28-31, 2013, pp. 1146-1150.
- * S. Tariq and M. Bassiouni "Hop-Count Fairness-Aware Protocols for Improved Bandwidth Utilization in WDM Burst-Switched Networks" *Journal of Photonic Network Communications*, Springer Publishing, Vol. 25, No. 1, 2013, pp. 35-46.
- * A. Alabrah and M. Bassiouni "A Hierarchical Two-Tier One-way Hash Chain Protocol for Secure Internet Transactions", *Proceedings of the IEEE GLOBECOM 2012 Conference- Communication and Information System Security Symposium*, Anaheim, CA, December 3-7, 2012, pp. 868-873.
- * B. Zhou and M. Bassiouni, "Threshold-based preemption scheme for improving throughput in OBS networks" *Journal of Photonic Network Communications*, Springer Publishing, Volume 24, No. 1, June 2012, pp. 12-21.
- * J. Cashion and M. Bassiouni, "Robust and Low-Cost Solution for Preventing Sidejacking Attacks in Wireless Networks using a Rolling Code", *Proceedings of the 7th ACM symposium on QoS and security for wireless and mobile networks* (Q2SWinet'11), Miami, FL, November 1-4, 2011, pp. 21-26.
- * J. Cashion and M. Bassiouni, "Protocol for Mitigating the Risk of Hijacking Social Networking Sites', *Proceedings of the 7th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing* (CollaborateCom'11), Orlando, FL, October 15-18, 2011, pp. 324-331.
- * M. Bassiouni and R. Guha, "Enhancing Network Security Education with Research and Development Content", *Proceedings of the 12th ACM Conference on Information Technology Education* (SIGITE'11), West Point, New York, October 20–22, 2011, pp. 293-298.

* B. Zhou, X. Gao, and M. Bassiouni, "Implications of the Wavelength Conversion Cascading Constraint on Two Optical Routing Algorithms", *Proceedings of the IEEE International Conference on Computational Intelligence and Communication Networks* (CICN2011), Gwalior, India, October 7-9, 2011, pp. 439-443.

JOURNAL PUBLICATIONS

- * X. Gao, M. Bassiouni, and G. Li "Effective preemptive scheduling scheme for optical burst-switched networks with cascaded wavelength conversion consideration" Journal of Optical Engineering, Vol. 49, No. 3, 2010, pp. 035004.1-035004.10.
- * X. Gao and M. Bassiouni "Improving Fairness With Novel Adaptive Routing in Optical Burst-Switched Networks" IEEE Journal of Lightwave Technology, Vol. 27, No. 20, October 2009, pp. 4480–4492.
- * A. Bag and M. Bassiouni "Biocomm a cross-layer Medium Access Control (MAC) and routing protocol co-design for biomedical sensor networks" International Journal of Parallel, Emergent and Distributed Systems, Taylor & Francis Publishing, Volume 24, Issue 1, 2009, pp. 85–103.
- * X. Gao, M. Bassiouni and G. Li "Addressing Conversion Cascading Constraint in OBS Networks through Proactive Routing" Journal of Photonic Network Communications, Springer Publishing, Vol. 18, No. 1, August 2009, pp. 90-104.
- * K. Anna and M. Bassiouni "A New Framework for QoS Provisioning in WLANS using P-Persistent 802.11 MAC" Journal of Computer Communications, Elsevier Publishing, Vol. 31, No. 17, November 2008, pp. 4035-4048.
- * Anirban Bag and Mostafa Bassiouni, "Hotspot Preventing Routing Algorithm for Delaysensitive Applications of In-vivo Biomedical Sensor Networks", Journal of Information Fusion, Special Issue on Distributed Sensor Networks, Elsevier Publishing, Volume 9, No. 3, July 2008, pp. 389-398.
- * Bin Zhou and Mostafa A. Bassiouni "Concurrent enhancement of network throughput and fairness in optical burst switching environments" Journal of Photonic Network Communications, Springer Publishing, Vol. 14, No. 2, July 2007, pp. 199-207.
- * B. Zhou, M. Bassiouni and G. Li "Using Constrained Preemption to Improve Dropping Fairness in Optical Burst Switching Networks" Journal of *Telecommunication Systems*, Springer Publishing, Volume 34, No. 3, April 2007, pp. 181-194.
- * X. Gao, M. Bassiouni and G. Li "Conversion Cascading Constraint-Aware Adaptive Routing for WDM Optical Networks" Journal of Optical Networking, Optical Society of America, Vol. 6, No. 3, March 2007, pp. 278-294.
- * M. El Houmaidi, M. Bassiouni, G. Li "Contention Resolution and QoS Provisioning Using Sparse Fiber Delay Lines in WDM Networks" Journal of Photonic Network Communications, Springer Publishing, Volume 13, Number 1, January 2007, pp. 111-122.

- * M. El Houmaidi and M. Bassiouni, "Dependency Based Analytical Model for Computing Connection Blocking Rates and its Application in the Sparse Placement of Optical Converters" IEEE Transactions on Communications, Vol. 54, No. 1, 2006, pp. 159-168.
- * B. Zhou and M. Bassiouni "Supporting Differentiated Quality of Service in Optical Burst Switched Networks" Journal of Optical Engineering, SPIE Publishing, Vol. 45, No. 1, 2006, pp. 015003.1-015003.12.
- * B. Zhou, M. Bassiouni and G. Li, "Routing and Wavelength Assignment in Optical Networks Using Logical Link Representation and Efficient Bitwise Computation" Journal of Photonic Network Communications, Springer Publishing, Vol. 10, No. 3, November 2005, pp. 333-346.
- * M. El Houmaidi, M. Bassiouni and G. Li ""Alarm based Routing and Path Protection in Survivable Wavelength Routed All-Optical Mesh Networks" Journal of Optical Networking, Optical Society of America, Vol. 4, March 2005, pp. 176-190.
- * B. Zhou, M. Bassiouni and G. Li "Improving Fairness in Optical Burst Switching Networks" Journal of Optical Networking, Optical Society of America, Vol. 3, No. 4, April 2004, pp. 214-228.
- * M. El Houmaidi, M. Bassiouni and G. Li "Architecture and Sparse Placement of Limited Wavelength Converters for Optical Networks" Journal of Optical Engineering, International Society for Optical Engineering- SPIE Publishing, Vol. 43, No.1, January 2004, pp. 137-147.
- * M. El Houmaidi, M. Bassiouni and G. Li "Dominating set algorithms for sparse placement of full and limited wavelength converters in WDM optical networks", Journal of Optical Networking, Optical Society of America, Vol. 2, No. 6, June 2003, pp. 162-177.
- * W. Cui and M. Bassiouni "Virtual Private Network Bandwidth Management with Traffic Prediction" Journal of Computer Networks, Elsevier Science Publishing, Vol. 42, No. 6, August 2003, pp. 765-778.
- * H. El-Aarag and M. Bassiouni "A Reliable Congestion Control Mechanism for Geocasting in Mobile Wireless Networks" International Journal of Network Management, John Wiley & Sons Publishing, Vol. 13, No. 5, September 2003, pp. 375-387.
- * H. El-Aarag and M. Bassiouni "An Internet Friendly Transport Protocol for Continuous Media Over Best Effort Networks" Int. Journal of Communication Systems, John Wiley & Sons Publishing, Vol. 15, December 2002, pp. 881-898.
- * W. Cui and M. Bassiouni "Analysis of Hierarchical Cellular Networks with Mobile Base Stations" Journal of Wireless Communications and Mobile Computing, John Wiley & Sons Publishing, Volume 2, March 2002, pp. 131-149.
- * H. El-Aarag and M. Bassiouni "Performance Evaluation of TCP Connections in Ideal and Non-Ideal Network Environments" Journal of Computer Communications, Elsevier Publishing, Vol. 24, No. 18, December 2001, pp. 1769-1779.

- * M. Bassiouni and C. Fang "Dynamic Channel Allocation for Real-time Connections in Highway Macrocellular Networks" Journal of Wireless Personal Communications, Springer-Kluwer Publishing, Vol. 19, No. 2, November 2001, pp. 121-128.
- * M. Chiu and M. Bassiouni "Predictive Schemes for Handoff Prioritization in Cellular Networks Based on Mobile Positioning" IEEE Journal on Selected Areas in Communications (JSAC), Vol. 18, No. 3, March 2000, pp. 510-522.
- * M. Bassiouni and M. Llewellyn "Extending temporal query languages to handle imprecise time intervals" Journal of Computer Languages, Elsevier Publishing, Vol. 25, April 1999, pp. 39-54.
- * Chatterjee, S. and Bassiouni, M. "Scalable and efficient broadcasting algorithms for very large internetworks" Journal of Computer Communications, Vol. 21, No. 10, July/August 1998, pp. 912-923.
- * Bassiouni, M.; Chiu, M.; Loper, M. and Garnsey, M. "Relevance filtering for distributed interactive simulation" Journal of Computer Systems Science and Engineering, Volume 13, No. 1, January 1998, pp. 39-47.
- * Bassiouni, M., Chiu, M., Loper, M., Granesy, M. and William, J. "Performance and reliability analysis of relevance filtering for scalable interactive distributed simulation" ACM Transactions on Modeling and Computer Simulation (TOMACS), Vol. 7, No. 3, August 1997, pp. 293-331.
- * Bassiouni, M. and Loper, M. "Application of OSI standard transfer syntax in real-time networks" Journal of Computer Standards & Interfaces, Elsevier Science Publishing, Vol. 17, Fall 1995, pp. 349-357.
- * Bassiouni, M. and Mukherjee, A. "Efficient decoding of compressed data" Journal of the American Society of Information Sciences (JASIS), John Wiley & Sons, Vol. 46, No. 1, January 1995, pp. 1-8.
- * Bassiouni, M.; Mukherjee, A. and Llewellyn, M. "Design and implementation of extended Boolean and comparison operators for time-oriented query languages" The Computer Journal, Vol. 37, No. 7, December 1994, pp. 576-587.
- * Kasparis, T.; Tzannes, N.; Bassiouni, M. and Chen, Q. "Texture description using fractal and energy features" Journal of Computers and Electrical Engineering, Volume 21, No. 1, January 1995, pp. 21-32.
- * Bassiouni, M. "Analysis of data loss rates in finite communication buffers with semi-Markov producers and consumers" International Journal of Systems Sciences, Vol. 25, No. 3, March 1994, pp. 503-511.
- * Bassiouni, M.; Llewellyn, N. and Mukherjee, A. "Time-based operators for relational algebra query languages" Journal of Computer Languages, Vol. 19, No. 4, October 1993, pp. 261-276.

- * Bassiouni, M. and Tzannes, N. "High-fidelity integrated lossless/lossy compression and reconstruction of images" Journal of Optical Engineering, Vol. 32, No. 8, August 1993, pp. 1848-1853.
- * Mukherjee, A.; Ranganthan, N. and Bassiouni, M. "Efficient VLSI designs for data transformation of tree-based codes" chapter in *VLSI Algorithms and Architectures (selected reprints)*, IEEE Computer Society Press (ed. N. Ranganathan), 1993.
- * Bassiouni, M. and Llewellyn, M. "A relational-calculus query language for historical databases" Journal of Computer Languages, Vol. 17, No. 3, 1992, pp. 185-197.
- * Llewellyn, M. and Bassiouni, M. "Historical database views" Journal of Information and Software Technology, Vol. 33, No. 2, 1991, pp. 113-120.
- * Ranganathan, N.; Mukherjee, A. and Bassiouni, M. "VLSI Algorithms for Data Compression" International Journal of Computer Systems Science and Engineering, Vol. 6, No. 4, Oct. 1991, pp. 238-253.
- * Mukherjee, A.; Ranganathan, N. and Bassiouni, M. "Efficient VLSI designs for data transformation of tree-based codes" IEEE Transactions on Circuits and Systems, Vol. 38, No. 3, March 1991, pp. 306-314.
- * Bassiouni, M. "Central processor scheduling using I/O behaviour models" International Journal of Systems Science, Vol. 21, No. 10, October 1990, pp. 1923-1931.
- * Bassiouni, M. "Analysis of buffer behavior with asynchronous input and output processes" International Journal of Computer Mathematics, Vol. 28, 1989, pp. 1-12.
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- * Bassiouni, M. and Khamare, U. "Algorithms for reducing rollbacks in concurrency control by certification" BIT (International Computer Science Journal-Denmark), Vol. 27, 1988, pp. 442-457.
- * Bassiouni, M. and Gupta, A. "Computing estimates of waiting times in local area networks with priority classes" Journal of Computer Systems Science and Engineering, Vol. 2, No. 4, October 1987, pp. 155-160.
- * Bassiouni, M. and Ok, B. "Double encoding- a scheme for reducing storage requirement of text" Information Systems, Vol. 11, No. 2, June 1986, pp. 177-184.
- * Bassiouni, M. "Computing overflow level in a producer-consumer communication model" International Journal of Systems Science, Vol. 17, No. 7, July 1986, pp. 991-1000.
- * Bassiouni, M. "System and program models of storage allocation for reducing seek delay" The Computer Journal, Vol. 29, No. 1, February 1986, pp. 47-51.

- * Bassiouni, M. "Data compression in scientific and statistical databases" IEEE Transactions on Software Engineering, Vol. SE-11, No. 10, October 1985, pp. 1047-1058.
- * Bassiouni, M. and Spirn, J. "Workload characterization at the program level- a model for I/O" Journal of Computer Performance, Vol. 5, No.1, March 1984, pp. 23-30.

REFEREED BOOK CHAPTERS

- * M. Bassiouni, V.M. Bier, P. Carayon, J. Chandra, R.K. Guha, S.B. Kraemer, S.M. Robinson, D.G. Schwartz, and S. Stoecklin, "Analysis, modeling, and simulation for networked systems" Book Chapter in *Department of Defense Sponsored Information Security Research: New Methods for Protecting Against Cyber Threats*, edited by Cliff Wang et al., Wiley Publishing, July 2007 (ISBN: 978-0-471-78756-3), pp. 440–465.
- * Kiran Anna and Mostafa Bassiouni "A Scheduler Based Architecture for QoS Provisioning in IEEE 802.11 MAC Protocol" Book Chapter in *Advances in Computer, Information, and Systems Sciences, and Engineering*, edited by K. Elleithy et al., Springer Publishing, 2006, pp. 308-315.
- * M. Bassiouni, W. Cui and B. Zhou "Fast Routing and Recovery Protocols in Hybrid Ad-hoc Cellular Networks" Book Chapter in *Wireless Communications Systems and Networks*, edited by M. Guizani, Springer-Kluwer Publishing, June 2004, pp. 685-697.
- * M. Bassiouni and W. Cui "Enhancing Terminal Coverage and Fault Recovery in Configurable Cellular Networks Using Geolocation Services" Book Chapter in *Next Generation Wireless Networks: Defining Applications and Services*, edited by S. Tekinay, Springer-Kluwer Publishing, December 2000, pp. 231 254.
- * Chatterjee, S. and Bassiouni, M. "Congestion free multimedia communications over broadband ATM networks" chapter in *Broadband Islands: Towards Integration*, edited by O. Spaniolo and F. Williams, Elsevier Science/North-Holland Publishers, November 1993, pp. 235-246.
- * Guha, R.; Bassiouni, M.; Dickinson, A.; Roy, D. and Fischer, M. "Stochastic Petri net models of distributed simulation systems" Book Chapter in *Dynamic Modeling of Information Systems* (Editors: H. Sol and R. Crosslin), North-Holland Publishing, December 1992, pp. 109-130.
- * Karimi, S.; Bassiouni, M. and Orooji, A. "Supporting temporal capabilities in a multi-computer database system" in *Databases: Theory, Design and Applications*. IEEE Computer Society Press (Editors: N. Rishe and S. Navathe), 1991, pp. 139-150.

EDITORIAL ARTICLES

- * M. Bassiouni "Editorial: Protecting Cookie-Based Internet User Sessions" *Journal of Telecommunications Systems & Management*, OMICs Publishing, Vol. 1, No. 3, 2012; pp. 1000e105.1-1000e105.2.
- * M. Bassiouni "Editorial: Electronics A New Multidisciplinary Open Access Journal" *Journal of Electronics*, Digital Publishing Institute (MDPI) Publishing, Basel, Switzerland, Vol. 1, No. 1, 2012; pp. 1-2. Available at http://www.mdpi.com/journal/electronics
- * R. Guha and M. Bassiouni "Editorial Article: Message from the Guest Editors", Journal of Simulation Practice & Theory, Special Issue on Parallel and Distributed Simulation, Elsevier Science Publishing, April 2002, pp. 91-93.

CONFERENCE PUBLICATIONS

- * Kiran Anna and Mostafa Bassiouni "Analytical Model for the P-Persistent 802.11 MAC Protocol in Unequal Load Conditions" Proceedings of the IEEE International Conference on Computational Intelligence and Communication Networks (CICN2010), Bhopal, India, November 26-28, 2010, 329 334.
- * Ashar Ahmad; Kiran Anna; Mostafa A. Bassiouni "Evaluation of frame aggregation schemes for the p-persistent based next generation WLANS", Proceedings of the Wireless Sensing, Localization, and Processing Conference, SPIE Proceedings Volume 7706, April 2010, pp. 770606.1-770606.6.
- * Kiran Anna and Mostafa Bassiouni "Analysis of the Saturation Throughput and Node Contention Levels in the 802.11 MAC Protocol" Proceedings of the IEEE Radio and Wireless Symposium (RWS 2010), New Orleans, January 10-14, 2010, pp. 609-612.
- * X. Gao, M. Bassiouni, and G. Li, "New Preemptive Scheduling for OBS Networks Considering Cascaded Wavelength Conversion," Proceedings of The SPIE Enabling Photonics Technologies for Defense- Security, and Aerospace Applications Conference, Orlando, FL, April 2009, pp. 73390M.1-73390M.10.
- * Xingbo Gao and Mostafa Bassiouni "Modeling and Performance Evaluation of Optical Burst Switched Ring Networks with Efficient Adaptive Routing" Proceedings of the 27th IEEE International Performance Computing and Communications Conference (IPCCC'08), Austin, Texas, December 7-9, 2008.
- * X. Gao, M.A. Bassiouni, G. Li, "On the Routing Improvement in OBS Networks Considering Cascaded Wavelength Conversion," Proceedings of the 20th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS), Orlando, Florida, November 2008, pp. 135-140.
- * Xingbo Gao and Mostafa Bassiouni "Fairness-Improving Adaptive Routing in Optical Burst Switching Mesh Networks" Proceedings of the IEEE International Conference on Communications (IEEE ICC 2008), Beijing, China, May 19-23, 2008.

- * Kiran Anna and Mostafa Bassiouni "A Distributed Admission Control to Provide Statistical QoS in P-Persistent 802.11 MAC Protocol" Proceedings of the IEEE Wireless Telecommunications Symposium, Pomona, California, April 24-26, 2008, pp. 316-323.
- * Xingbo Gao, Mostafa Bassiouni, Guifang Li "Proactive Routing under Conversion Cascading Constraint in Optical Burst Switching Networks" Proceedings of the IEEE International Conference on High Performance Switching and Routing (HPSR 2008), Shanghai, China, May 15-17, 2008.
- * Anirban Bag and Mostafa A. Bassiouni, "Routing Algorithm for network of homogeneous and Id-less biomedical sensor Nodes (RAIN)", Proceedings of the IEEE Sensors Applications Symposium 2008 (IEEE-SAS' 08), Atlanta, Georgia, Feb. 12-14, 2008.
- * Anirban Bag and Mostafa A. Bassiouni "A Tunable Cross-layer Congestion Reducing Medium Access Control (CRMAC) Protocol for Wireless Networks" Proceedings of the IEEE Military Communications Conference (IEEE MILCOM), Orlando, FL, October 2007.
- * Anirban Bag and Mostafa A. Bassiouni, "Hotspot Preventing Routing Algorithm for Delay-sensitive Biomedical Sensor Networks", Proceedings of the IEEE International Conference on Portable Information Devices (IEEE-Portable '07), Orlando, FL, March 2007, pp. 1-5.
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- * K. Anna and M. Bassiouni, "Analytical modeling and QoS Application of P-Persistent 802.11 MAC Protocol" Proceedings of the IEEE GLOBECOM '06, San Francisco, CA, December 2006.
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- * Xingbo Gao, Mostafa A. Bassiouni and Guifang Li, "Evaluating the Impact of Wavelength Conversion Cascading on the Performance of Optical Routing Algorithms", in Proceedings of The 4th International Conference on Communications, Internet, and Information Technology (CIIT '06), St. Thomas, US Virgin Islands, 2006, pp. 112-117.
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- * B. Zhou, M. Bassiouni, and G. Li "Using Constrained Preemption for Alleviating Hop-Count Unfairness in OBS Networks" Proceedings of the SPIE Conference on Photonic Devices, Systems, and Optical Networks, October 2005.
- * R. Guha and M. Bassiouni "Modular Design for Distributed Systems and Network Security Courses in Computer Science Curriculum" Proceedings of the 6th International Conference on Information Technology Based Higher Education and Training, Santo Domingo, Dominican Republic, July 2005.
- * H. Fareed and M. Bassiouni "Adaptive Object Cache Pre-Fetching Scheme Based on Object Flow" Proceedings of the 24th IEEE International Performance Computing and Communications Conference, Phoenix, Arizona, April 7-9, 2005, pp. 311-319.
- * B. Zhou and M. Bassiouni "Geolocation-Based Routing in Wireless Ad-Hoc Networks" in the Proceedings of the 5th World Wireless Congress, San Francisco, May 2004, pp. 281-286.
- * M. El Houmaidi, M. Bassiouni and G. Li "Optimal traffic grooming in WDM mesh networks under dynamic traffic" Proceedings of the *IEEE/OSA OFC 04 (Optical Fiber communications conference)*, No. ThG3, February 22-27, 2004, pp. 122-124.
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- * M. El Houmaidi, M. Bassiouni and G. Li, "Architectures and Algorithms for Resource Allocation", Proceedings of the Second IEEE International Workshop on Optical Burst Switching in conjunction with IEEE Globecom 2003. December 1-5, 2003.
- * M. El Houmaidi and M. Bassiouni, "k-Weighted Minimum Dominating Sets for Sparse Wavelength Converters Placement under Non-uniform Traffic" Proceedings of the 11th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS), October 2003, pp. 56-61. (Acceptance rate 24%, 27 out of 111 submissions)
- * M. El Houmaidi, M. Bassiouni and G. Li "Algorithm for placement of limited wavelength conversion in WDM optical networks" Proceedings of the ITCOM Conference, Optical Transmission Systems and Equipment for WDM Networking II; Benjamin B. Dingel, Werner Weiershausen, Achyut K. Dutta, Ken-Ichi Sato; Editors. The International Society for Optical Engineering (SPIE), SPIE Vol. 5247, August 2003, pp. 185-195.
- * H. ElAarag and M. Bassiouni "Reliable Multicasting Preserving End-to-End TCP Semantics in Wireless Cellular Networks" Proceedings of the IEEE 3G Wireless'03/World Wireless Congress, San Francisco, May 2003.
- * H. ElAarag and M. Bassiouni "A TCP-friendly Protocol for Media Streams over Best Effort Networks", Proceedings of the 10th International Conference on Telecommunications, ICT'2003, Papeete, French Polynesia, February 2003.

- * W. Cui and M. Bassiouni "Adaptive Recovery Protocols for Multi-layer Ad-Hoc Networks in Theater of Non-uniform Failure Rate" Proceedings of the 16th AeroSense SPIE Conference on Digital Wireless Communications, April 2002, pp. 142-150.
- * M. Bassiouni and R. Guha "Modeling and Analysis of Temporal Failure and Degradation Behavior of Critical Infrastructure Systems" Proceedings of the 35th Hawaii International Conference on System Sciences, January 2002, pp. 50-55.
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- * W. Cui and M. Bassiouni "Two-Tier Channel Assignment for Wireless Networks with Dynamic Cellular Architecture" Proceedings of the IEEE International Conference on Third Generation Wireless Communications, Silicon Valley, June 2000, pp. 264-271.
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- * M. Bassiouni "Message from the Program Chair" Proceedings of the First Conference on Computer Simulation Methods and Applications-CSMA, Orlando, October 2000.
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- * M. Bassiouni, Review of "Concurrent Programming (621 pages) Edited by N. Gehani and A. McGettrick, AddisonWesley, Reading MA, 1989", Journal of Information and Software Technology, Vol. 32, No. 2, March 1990, p. 164.
- * M. Bassiouni, Review of "*Data compression: Methods and Theory* (413 pages), by James Storer, Computer Science Press, 1988" ACM Computing Review, Vol. 30, No. 5, May 1989, pp. 241-242.

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- * M. Bassiouni, Review of "A new text compression technique based on language structure" J. of Information Science, Vol. 21, No. 2, 1995", ACM Computing Reviews, 1996.
- * M. Bassiouni, Review of "Implementing multiple locks using Lamport's mutual exclusion algorithm, in ACM Letters on Programming Language Systems, Vol. 2, No. 1, pp. 46-58", ACM Computing Reviews, May 1995.
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- * M. Bassiouni, Review of "Analysis of hybrid concurrency control schemes for a high data contention environment, by Yu, P. and Dias, D., IEEE Transactions on Software Engineering, Vol. 18, No. 2, 1992, pp. 118-129", ACM Computing Review, Vol. 34, No. 8, 1993, p. 440.
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- * M. Bassiouni, Review of "A note on the DMC data compression scheme, by Bell, T. and Moffat, A., Computer Journal, Vol. 32, No. 1, 1989, pp. 16-20", ACM Computing Review, Vol. 30, No. 10, 1989, p. 534.
- * M. Bassiouni, Review of "Concurrent histories: a basis for observing distributed systems, by Degano, P. and Montanari, U., J. of Computer and System Sciences, 1987, pp. 422-461", ACM Computing Review, Vol. 29, September 1988, pp. 480-481.
- * M. Bassiouni, Review of "Disk file allocation based on the buddy system, by Koch, P., ACM Transactions on Computer Systems, Vol. 5, No. 4, Nov. 1987, pp. 352-370", ACM Computing Review, Vol. 29, No. 6, 1988, pp. 352-370.

RESEARCH FUNDING/AWARDS

Grants and contracts awarded to Bassiouni, as PI or Co-PI, include 30 external awards and 3 inhouse awards. Bassiouni has been the PI of 14 externally funded grants totaling \$3,126,030 and the Co-PI of 16 grants totaling \$7,098,065. Funding agencies for external research and curriculum development grants include federal agencies (NSF, ARO, Army's PMTRADE, DoD/ARPA, Army's STRICOM), state agencies (FHTIC) and industry (CBIS, Harris, Trendium).

* Title: "Undergraduate Computer Security Course Enhancement".

PIs: R. Guha and M. Bassiouni.

Funding Agency: NSF.

Duration: 5/1/2009 - 4/30/2012. Funded Amount: \$150.000.

* Title: "Optical Communications and Networking".

PIs: G. Li, M. Bassiouni, P. Delfyett, J. Moharam, P. LiKamWa.

Funding Agency: NSF IGERT Program.

Duration: 9/15/2001 - 8/31/2008. Funded Amount: \$2,425,851.

* Title: "Modeling and Simulation Environment for Critical Infrastructure Protection.

PIs: R. Guha and M. Bassiouni.

Funding Agency: DoD ARO MURI Program.

Duration: 5/1/2001- 4/30/2006. Funded Amount: \$737,816.

* Title: "High Performance Cluster Computing for Collaborative Large Scale Simulation".

PIs: R. Guha, M. Bassiouni, E. Gelenbe.

Funding Agency: US Army. Duration: 9/1/2003 - 8/31/2005. Funded Amount: \$270,000.

* Title: Evaluation Methods for Distributed Systems and Applications in the Computer Science Undergraduate Curriculum.

PIs: R. Guha, M. Bassiouni, E.Gelenbe.

Funding Agency: NSF.

Duration: 9/15/2000 - 8/31/2003. Funded Amount: \$550,000.

* Title: Combined Research and Curriculum Development in Optical Networking.

PIs: G. Li, M. Bassiouni, P. Delfyett, J. Moharam, P. LiKamWa.

Funding Agency: NSF CRCD Program.

Duration: 0/1/1999 - 9/30/2002. Funded Amount: \$374,026.

* Title: Transaction Processing Performance of RAID.

Funding Agency: DPT Inc.

PIs: E.Gelenbe, M. Bassiouni and R. Guha. Duration: June 1999 - December 2000.

Amount: \$51,000.

* Title: Transaction Processing Performance of RAID.

Funding Agency: I4 Corridor Match. PIs: E.Gelenbe, M. Bassiouni and R. Guha. Duration: September 1999 - June 2000.

Amount: \$51,000.

* Title: "Research on ATM Networking Mechanisms and Distributed Interactive Simulation".

PIs: M. Bassiouni and R. Guha.

Funding Agency: NSF Gigabit ATM Network Research Technology Distribution Program.

Duration: 1998 - 2001.

Dollar Amount: \$105,000 (in equipment and training workshops).

* Title: "Performance Evaluation of Network Service Quality Management Systems".

PI's: M. Bassiouni and E. Gelenbe. Funding Agency: Trendium, Inc.

Duration: May 2000 - April 2001.

Amount: \$15,000.

* Title: Video Image Dissemination, Exploitation, and Organization.

PIs: M. Shah, E.Gelenbe, M. Bassiouni, N. Lobo, N. Deo, and K. Hua.

Funding Agency: Harris Corporation and I4 corridor.

Duration: July 1998 - June 1999.

Amount: \$250,000 (\$37,500 for Bassiouni's task).

* Title: Parallel/Distributed Evaluation to Advance Distributed Interactive Simulation.

PIs: R. Guha and M. Bassiouni. Funding Agency: DoD ARO. Duration: 10/30/1995 - 10/1/2001. Funded Amount: \$1,656,415.

* Title: "Data Replication and Consistency using distributed architecture".

PI: M. Bassiouni.

Funding Agency: Cincinnati Bell Information Systems (CBIS).

Duration: May 23, 1994 - May 5, 1995.

Amount Funded: \$16,000.

* Title: "An Ada-based course sequence in software engineering".

Principal Investigators: M. Bassiouni and D. Workman.

Funding Agency: ARPA, Contract No. F29601-94-K-0032.

Duration: May 11, 1994 to May 10, 1995.

Amount Funded: \$69,651.

* Title: "Equipment for Research in Special Purpose VLSI Architectures".

Principal Investigators: A. Mukherjee, M. Bassiouni, and M. Shah.

Funding Agency: National Science Foundation, NSF Grant No. CDA-9222798.

Duration: January 1993 - December 1993.

Amount Funded: \$52,909. (includes \$20,000 in matching fund)

* Title: "Image Data Compression".

Principal Investigator: M. Bassiouni .

Funding Agency: Cincinatti Bell Information Systems (CBIS).

Duration: September 1992 - May 1993.

Amount Funded: \$4,200.

* Title: "Real-time data filtering and compression in wide area simulation networks".

Principal Investigators: M. Bassiouni and A. Mukherjee.

Funding Agency: DOD/STRICOM, Contract N61339-92-C-0016.

Duration: January 1992 - June 1993.

Amount Funded: \$159,547.

* Title: "Evaluation of the OSI skinny stack and long haul DIS links".

Investigator: M. Bassiouni.

Funding Agency: DOD/STRICOM via IST.

Duration: January 1993 - December 1993.

Amount Funded: \$80,000 funded as a task of a larger project entitled "DIS Testbed Research

and Development", Project Manager: B. Goldiez.

* Title: "Equipment for Research in Image Understanding and Image Compression for Dynamic Scenes".

Principal Investigators: M. Shah, M. Bassiouni, and T. Kasparis.

Funding Agency: National Science Foundation Grant No. CDA-9122006.

Duration: June 1992 - May 1993.

Amount Funded: \$53,469. (includes \$20,000 in matching fund)

* Title: "Modeling and evaluating different topologies for the virtual network of distributed interactive simulation".

Principal Investigators: R. Guha and M. Bassiouni.

Funding Agency: DOD/STRICOM, Contract No. N61339-93-C-0016.

Duration: December 1992 - December 1994.

Amount Funded: \$159,720.

* Title: "Investigation of OSI protocols for distributed interactive simulation".

Faculty Investigator: M. Bassiouni (Project Manager: M. Loper).

Funding Agency: DOD/PM-TRADE Contract N61339-91-C-0103.

Duration: June 1991 - June 1992. Amount Funded: \$426,815.

* Title: "Compression of image data and hypermedia".

Principal Investigators: M. Bassiouni and N. Tzannes.

Funding Agency: Florida High Technology and Industry Council.

Duration: February 1991 - September 1992.

Amount Funded: \$22,395.

* Title: "Petri net models for evaluating the performance of distributed simulation using several network architectures".

Principal Investigators: R. Guha and M. Bassiouni.

Funding Agency: DOD/PM-TRADE, Contract N61339-90-C-0031.

Duration: February 1990 - November 1991.

Amount Funded: \$182.119.

* Title: "Compression of image data and hypermedia".

Principal Investigators: M. Bassiouni and N. Tzannes.

Funding Agency: Florida High Technology and Industry Council.

Duration: January 1990 - January 1991.

Amount Funded: \$61,862.

* Title: "Applications of fractals to image classification and segmentation".

Principal Investigators: T. Kasparis, N. Tzannes, and M. Bassiouni.

Funding Agency: Florida High Technology and Industry Council.

Duration: January 1990 - January 1991.

Amount Funded: \$20,000.

* Title: "Research & Development for Networking and Communication Technology".

Funding Agency: DOD/DARPA: Contract No. N61339-89-C-0043. Principal Investigators: M. Bassiouni, M. Georgiopoulos, and J. Thompson.

Duration: May 1989 to May 1991. Amount Funded: \$1,903,131.

* Title: "Data compression for long-haul simulation networks".

Principal Investigators: M. Bassiouni and A. Mukheriee.

Funding Agency: DOD/PM-TRADE, Contract N61339-89-C-0132.

Duration: November 15, October 1989 - December 1991.

Amount Funded: \$155,904.

* Title: "Efficient Compression of images, speech, and hypermedia". Principal Investigators: M. Bassiouni, N. Tzannes, and Y. Alsaka. Funding Agency: Florida High Technology and Industry Council.

Duration: January 1989 - January 1990.

Amount Funded: \$19,625.

* Title: "Simulation network modeling and monitoring".

Funding Agency: DOD/PM-TRADE Contract N61339-88-G-0002.

Principal Investigator: M. Bassiouni. Duration: August 1988 - August 1989.

Amount Funded: \$100,900.

* Title: "Performance evaluation of simulation networks using Petri nets". Funding Agency: DOD/PM-TRADE Contract N61339-88-G-0002.

Principal Investigators: R. Guha, M. Bassiouni, and S. Lang.

Duration: August 1988 - August 1989.

Amount Funded: \$113,741.

* Title: "Design and performance evaluation models of distributed simulation training".

Principal Investigators: M. Bassiouni and G. Wasserman. Funding Agency: Institute for Simulation and Training.

Duration: May 1988 - August 1988.

Amount: \$9,884.

* Title: "Optimistic Concurrency Control".

Principal Investigator: M. Bassiouni.

Funding Agency: DSR-UCF (in-house grant).

Duration: May 1986 - August 1986.

Amount Funded: \$3,292.

* Title: "Database management".

Principal Investigator: M. Bassiouni.

Funding Agency: DSR-UCF (in-house grant).

Duration: May 1984 - August 1984.

Amount Funded: \$5,048.

* Title: "File allocation on disk storage devices"- M. Bassiouni

Amount Funded: \$1000, NSF Travel Grant, July 1983.

* Title: "File access modeling".

Principal Investigator: M. Bassiouni.

Funding Agency: DSR-UCF (in-house grant).

Duration: May 1982 - August 1982.

Amount Funded: \$1,900.

COURSES TAUGHT AT UCF

M. Bassiouni has taught **17 different courses at UCF**, 8 undergraduate courses and 9 graduate courses. Below is the list of these courses and the semesters they were offered.

- * CNT 3004 Computer Network Concepts: Fall 2008, Fall 2009, Fall 2010, Fall 2011, Spring 2012, Fall 2012, Spring 2013.
- * COP 3502 (formerly COP 2510) Computer Science I (Algorithmic Programming I): Summer 1982, Spring 1983.
- * COP 3503 (formerly COP 2511) Computer Science II (Algorithmic Programming II): Summer 1983, Summer 1985, Fall 1985, Summer 1986.
- * COP 3402 Systems Software/Assembly Language: Summer 1987.
- * CNT 4403 Network Security and Privacy: Spring 2009, Spring 2010, Spring 2011, Spring 2012, Spring 2013.
- * COP 4020 (formerly COP 4550) Programming Languages I: Fall 1984.
- * COP 4600 (formerly COP 4620) Operating Systems: Spring 1982, Spring 1984, Summer 1985, Fall 1986, Summer 1988.
- * COP 4710 (formerly CIS 4112) Database Systems: Spring 1982, Summer 1982, Fall 1982, Spring 1987.
- * CNT 5008 (formerly CDA 5501) Computer Communication Networks Architecture: Spring 1999, Fall 1999, Fall 2000, Fall 2001, Fall 2002, Fall 2003, Fall 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2009, Fall 2010, Fall 2011, Fall 2012.
- * COP 5611 (formerly COP 5613) Operating Systems Design Principles: Summer 1983, Fall 1984, Fall 1985.
- * COP 5711 (formerly CIS 5012) Principles of Database Systems: Fall 1982, Summer 1986, Summer 1987, Fall 1987, Fall 1988, Spring 1989.
- * CNT 6707 (formerly CDA 6520) Advanced Computer Networks: Spring 1995, Spring 1996, Spring 1997, Spring 1998, Spring 2000, Spring 2003, Spring 2004, Spring 2005, Spring 2006, Spring 2007, Spring 2008, Spring 2009, Spring 2010, Spring 2011, Spring 2012, Spring 2013.
- * COP 6614 Operating Systems Techniques: Fall 1983, Fall 1987, Fall 1988, Fall 1989, Fall 1990, Fall 1991, Fall 1992, Fall 1993, Fall 1994, Fall 1995, Fall 1996, Fall 1997, Fall 1998, Fall 1999.
- * COP 6615 Operating Systems Theory: Spring 1984, Spring 1985, Spring 1986, Spring 1987, Spring 1988, Spring 1989, Spring 1990, Spring 1991, Spring 1992, Spring 1993, Spring 1994.

- * COP 6730 (formerly CIS 6122) Transaction Processing (Database System Techniques): Spring 1983, Spring 1985, Spring 1986, Fall 1986, Spring 1988.
- * COP 6731 (formerly CIS 6124) Advanced Database Systems (Database Theory): Fall 1983.
- * OSE 6473 Optical Networks: Fall 2001 (co-taught with Prof. Li of CREOL).

DOCTORAL DISSERTATIONS SUPERVISED

* Kiran Anna: graduated in August 2010.

Title: A New Framework For QoS Provisioning in Wireless LANs Using the P-Persistent MAC Protocol.

Employment: Software Design Engineer, Microsoft Corporation, Redmond, Washington.

* Xingbo Gao: graduated in December 2009.

Title: Design and Analysis of Effective Routing and Channel Scheduling for Wavelength Division Multiplexing Optical Networks.

Employment: Corporate Investment Quant Finance Analyst- Bank of America, Atlanta, Georgia.

* Anirban Bag: graduated in December 2007.

Title: Medium Access Control Protocols and Routing Algorithms for Wireless Sensor Networks.

Employment: Technical Staff Member, Riverbed Tech, Inc., Sunnyvale, California.

* Bin Zhou: graduated in May 2006.

Title: Improving Routing Efficiency, Fairness, Differentiated Services and Throughput in Optical Networks.

Employment: Consultant, JP Morgan Corporation, New Jersey.

* Mounire El Houmaidi: graduated in May 2005.

Title: Resource Allocation Schemes and Performance Evaluation Models for Wavelength Division Multiplexed Optical Networks

Employment: Principal Member of Technical Staff, AT&T Labs, Atlanta, Georgia.

* Wei Cui: graduated in August 2003.

Title: Hierarchical and Predictive Design Techniques for Improving QOS and Performance in Modern Wired and Wireless Networks.

Employment: Research Scientist, Arbor Networks Corporation, Ann Arbor, Michigan.

* Hala ElAraag: graduated in May 2001.

Title: Transport control protocol for the success of Internet.

Employment: Associate Professor, Department of Computer Science, Stetson University, Deland, Florida.

* Ming Chiu: graduated in May 1999.

Title: Predictive, scalable and fair protocols for distributed systems.

Employment after graduation: Department of Computer Science, University of New Orleans, New Orleans, Georgia.

* S. Chatterjee: graduated in August 1994.

Title: Integrated multimedia communications over high-speed networks.

Employment: Fletcher Jones Chair of Technology Management & Professor, School of Information Systems and Technology, Claremont Graduate University, Claremont, California.

* Mark Llewellyn: graduated in August 1994.

Title: Temporal extensions to the relational database model.

Employment: School of Computer Science, University of Central Florida, Orlando, Florida.

* N. Ranganathan: graduated in August 1988 (Chair: A. Mukherjee, Co-Chair: M. Bassiouni). Title: Hardware algorithms for data compression.

Employment: Professor, Computer Science and Engineering, University of South Florida, Tampa, Florida.

MASTER THESES SUPERVISED

* Neyveli Balaji: graduated in May 2003.

Title: A Cache Invalidation Scheme for Configurable wireless networks.

* Kondapalli Naveen: graduated in May 2002.

Title: Rate Based Reliable Multicast Protocol.

* Cheng Xin: graduated in May 2001.

Title: Modeling imprecise time intervals in temporal databases.

* Vijay Sivasankaran: graduated in December 2001.

Title: Load Balancing with Redirection Server Using Static and Dynamic Mirroring Techniques.

* Zaheer Ayesha: graduated in December 2000.

Title: A Hierarchical Channel Selection Scheme for Macro/Micro Cellular Networks.

* Dubey Sameer: graduated in December 1999.

Title: A Predictive Protocol for Congestion Control of Continuous Media Traffic over ATM Networks.

* Pinar Alparslan: graduated in December 1998.

Title: Concurrency control with deadlock prevention in distributed database systems.

* Chun-Chin Fang: graduated in December 1998.

Thesis Title: Dynamic channel assignment and reassignment in highway cellular networks.

* Latha Muddegowdappa: graduated in May 1998.

Title: Call admission control, traffic policing and congestion control in ATM networks.

* Rajani Vailaya: graduated in December 1997.

Title: Quality of service in multimedia networks.

* Cynthia Taylor: graduated in May 1997.

Title: Distributed shared memory: issues and implementations.

* Xiaochen Yang: graduated in May 1997.

Thesis: Implementation and evaluation of extended Boolean operators for temporal databases.

* Nilay Sheth: graduated in December 1996.

Thesis: Service based discarding scheme for congestion control in ATM networks.

* Hyun Kim: graduated in May 1996.

Thesis: Distributed mutual exclusion using slotted token based message passing in a dual ring network.

* E. Guruvadoo: graduated in May 1996.

Title: Scheduling in distributed computing systems.

* D. Wood: graduated in May 1996.

Title: Concurrent Object-oriented programming.

* S. Dixit: graduated in December 1995.

Thesis: An adaptive channel establishment protocol for ATM networks.

* R. Varalakshmi: graduated in December 1995.

Title: Real-time services in communication networks.

* D. Tjong: graduated in December 1995.

Title: Network congestion control.

* D. Jawahar: graduated in August 1994.

Title: A service discipline for prediction based congestion control scheme.

* M. Alshayeji: graduated in August 1994.

Title: Load balancing in distributed systems.

* S. Gunturu: graduated in December 1994.

Title: Management of faults in computer networks.

* R. Kalathur: graduated in May 1994.

Title: "Cell loss recovery in ATM networks using coding and buffer management".

* S. Senapati: graduated in May 1994.

Title: "Congestion control of real-time data in high speed packet networks".

* M. Modi: graduated in May 1994.

Title: "Enhancing the usability level in statistical databases using distributions of restricted ranges".

* U. Deshmane: graduated in December 1993.

Title: "Query processing in object-oriented database systems".

* Christopher Choate: graduated in December 1993.

Title: "Data compression algorithms".

* M. Kazi: graduated in December 1992.

Title: "Deadlock detection in distributed systems".

* Sandhya Chandarlapaty: graduated in May 1992.

Title: "Multicasting techniques in distributed computer systems".

* H. Fareed: graduated in May 1992.

Title: "Temporal database management systems".

* Arthur Johnson: graduated in May 1992.

Title: "Data compression algorithms".

* T. Iles: graduated in May 1992.

Title: "Deductive database management systems".

* M. Chiu: graduated in December 1991.

Title: "Queueing models for buffer allocation in communication networks".

* Hon-Chuen Chu: graduated in December 1991.

Title: "Token-ring Local area networks".

* William Johnson: graduated in December 1991.

Title: "Data encryption techniques".

* B. Madhyani: graduated in December 1991.

Title: "Computer file systems".

* M. Patel: graduated in August 1991.

Title: "Object-oriented databases".

* Sudhir Jahagirdar: graduated in May 1990.

Title: "Image coding algorithms".

* Christian Oiseh: graduated in August 1989.

Title: "Load balancing in distributed database systems".

* Ronald Krauskopf: graduated in August 1988.

Title: "Analysis of load balancing algorithms in distributed networks".

* Christine Waters: graduated in August 1988.

Title: "Data compression techniques".

* Larry Baird: graduated in August 1988.

Title: "Design of Multi-user DOS-oriented operating system with blocking communication

primitives".

* Janet Krauskopf: graduated in December 1987.

Title: "Approximation algorithms for fail-stop processors in fault-tolerant distributed systems".

* Javier Fernandez: graduated in August 1987.

Title: "Views and hypothetical relational databases".

* Lacelles Adams: graduated in May 1987.

Title: "A business application and support system".

* Daniel Lestourgeon: graduated in May 1986.

Title: "Design of a transaction module for a distributed database system".

* Ashok Gupta: graduated in December 1985.

Title: "Analysis and simulation of performance models of token driven local area networks".

* Hiren Desai: graduated in August 1985.

Title: "Interference analysis in synchronization algorithms".

* Umesh Khamare: graduated in May 1985.

Title: "Optimistic methods of concurrency control in database systems".

* Anil Shetgiri: gradauted in August 1984.

Title: "An easy-to-use relational interface to INGRES".

* Bahri Ok: graduated in May 1984.

Title: "DIBACOS: a dictionary based compression system".

* Laung Chu: graduated in December 1983.

Title: "A comparative model for query processing".

UNIVERSITY-LEVEL COMMITTEE SERVICES

- * UCF Information Technology Resource Advisory Committee, member 2012-present.
- * University Research Council, Member: 2006/2007, 2005/2006, 2004/2005, 2003/2004.
- * University Internet 2 Committee, Member: 2000/2001, 1997/1998, 1996/1997.
- * University Internet 2 Committee, Application Chair: 1999/2000, 1998/1999.
- * Strategic Planning SubCommittee on Computers, Tele-communications and High-Technology Industry, Chair: 1995/1996.
- * UCF SACS Committee for Computer Resources and Services, Chair: 1994/1995.
- * Computer Resources and Services Committee for SACS Accreditation, Chair: 1993/1994.
- * University E-mail Policy Committee, Member: 1992/1993.
- * UCF Self-Study Project, Computer Resources and Services Subcommittee, Chair 1992/1993.
- * Committee for Establishing Procedures to Evaluate Admission Documents of Oversees Students, Member: 1987/1988.

COLLEGE-LEVEL COMMITTEE SERVICES

- * RIA selection Committee, College of Engineering & Computer Science, Member: 2006.
- * Sabbatical Committee, College of Engineering & Computer Science: 2005/2006, 2004/2005.
- * Promotion and Tenure Committee, College of Engineering & Computer Science: 2004/2005, 2003/2004.
- * TIP Criteria Committee, College of Engineering & Computer Science: Member: 2004/2005, 2001/2002.
- * Professorial Excellence Program (PEP) Awards Committee, College of Arts and Sciences, Member: 1999/2000, 1996/1997.
- * TIP Criteria and Procedure Committee, College of Arts and Sciences, Member 1999/2000, 1993/1994.
- * In-House Grants Review Committee, College of Arts and Sciences, Member 1999/2000, 1988/1989.
- * Distinguished Research Awards Committee, College of Arts and Sciences, Member: 1997/1998, 1995/1996.
- * Promotion and Tenure Committee, College of Arts and Sciences, Member 1991/1992, 1990/1991, 1988/1989.
- * Excellence Awards Committee, College of Arts and Science, 1986/1987.

DEPARTMENTAL COMMITTEE SERVICES

- * EECS Networking Curriculum SubCommittee, Chair: 2006.
- * EECS Faculty Excellence Awards Committee, Member: 2006, 2005.
- * EECS Tenure Appraisal Committee, Member: 2006.
- * EECS School Executive Committee, Member: 2006.
- * Computer Science Faculty Search Committee, Member: 2005/2006, 2004/2005, 2002/2003, 2001/2002, 2000/2001, 1996/1997.
- * Computer Science Faculty Search Committee, Chair: 1999/2000.
- * Computer Science Budget Advisory Committee, Member: 2004/2005, 2003/2004.
- * Computer Science Promotion and Tenure Committee, Member: 2002/2003, 1989/1990, 1997/1998.
- * International Graduate Honor Committee, Member: 1999/2000.
- * Computer Engineering Faculty Search Committee, Member: 1999/2000.
- * Network Graduate Curriculum Subcommittee, Chair: 1999/2000.
- * CS PhD Qualifier Exams, Coordinator of the Networks Area: 2007, 2006, 2005, 2004, 2003, 2002, 2001, 2000, 1999.
- * CS PhD Qualifier Exams, Coordinator of the Operating Systems Area: 2000, 1999.
- * Operating Systems Area Committee, Chair: 1999/2000, 1997/1998, 1996/1997, 1995/1996, 1994/1995.
- * Database Area Committee, Member: 1999/2000, 1997/1998, 1996/1997, 1995/1996, 1994/1995, 1993/1994, 1992/1993, 1991/1992.
- * Software Engineering Area Committee, Member. 1997/1998, 1996/1997, 1995/1996, 1994/1995.
- * Computer Science Computing Committee, Chair: 1997/1998, 1993/1994.
- * AEP Oversight Committee, Member: 1997/1998.
- * Computer Science Academic Excellence Committee, Member: 1996/1997.
- * Computer Science Graduate Committee, Chair: 1995/1996, 1994/1995, 1987/1988.

- * Computer Science Graduate Committee, Member: 1996/1997, 1993/1994, 1992/1993, 1991/1992, 1990/1991, 1988/1989, 1986/1987, 1985/1986.
- * Computer Science Industrial Affiliates Committee, Member: 1997/1998, 1995/1996, 1994/1995.
- * Programming Systems Area Committee, Chair: 1993/1994, 1992/1993, 1991/1992.
- * Algorithmic Programming Area Committee, Member: 1993/1994, 1992/1993, 1991/1992.
- * Computer Science Awards Nomination Committee, Chair: 1992/1993.
- * Computer Science Ph. D. Qualifier Restructuring Committee, Chair: 1992/1993.
- * Computer Science Colloquium Committee, Chair: 1989/1990.
- * Computer Science Technical Reports Committee, Member: 1987/1988.
- * Graduate Assistantship Selection/Retention Committee, Member: Fall 1987.
- * Computer Science Technical Reports, Editor: 1986/1987, 1985/1986.
- * Course Standard Committee for Operating Systems, Chair: 1986/1987.
- * Course Standard Committee for Databases, Member: 1986/1987.
- * Search Committee for Chairperson of Computer Science, Member: 1985/1986.
- * Search Committee for the Endowed Chair in Computer Science, Member 1983/1984.
- * Committee for the Development of Guidelines for Merit Pay, Member: 1983/1984.
- * Undergraduate Committee, Chair: 1983/1984.
- * Undergraduate Committee, Member: 1982/1983.
- * Co-Director, Distributed Computing and Networking Laboratory, 1996-present.

Service at the Institute for Simulation and Training (IST-UCF)

- * Search Committee for EE/IST joint faculty position, Member: 1990/1991.
- * Search Committee for Senior Networking Engineer, Member: 1989/1990.
- Search Committee for Senior Assistant in Simulation, Member: 1989/1990.
- * Search Committee for Research Associate, Member: 1989/1990.
- * Search Committee for Senior Networking Engineer- IST, Member: Spring 1989.
- * Faculty representative for IST Board of Directors visit- IST: Fall 1988.

REVIEWER FOR FUNDING AGENCIES

- National Science Foundation.
- * Natural Sciences and Engineering Research Council (NSERC) of Canada.
- * Qatar National Research Fund.

REVIEWER FOR JOURNALS

- * IEEE Journal on Selected Areas in Communications.
- * IEEE Transactions on Software Engineering.
- * IEEE Transactions on Computers.
- * IEEE Transaction on Communications.
- * IEEE/ACM Transactions on Networking.
- * IEEE Transactions on Mobile Computing.
- * IEEE Transactions on Knowledge and Data Engineering.
- * IEEE Transactions on Parallel and Distributed Systems.

- * IEEE Transactions on Vehicular Technology-Wireless Networks.
- * IEEE Spectrum Magazine.
- * IEEE Software.
- * IEEE Computer.
- * Acta Informatica Journal.
- * ACM Transactions on Database Systems.
- * ACM Computing Reviews.
- * ACM Mobile Computing and Communications Review.
- * The Computer Journal.
- * The Computer Networks Journal (COMNET).
- * Journal on Ad Hoc Networks- Elsevier
- * Journal of Advances in Engineering Software Elsevier Publishing
- * Journal of Computer Systems Science and Engineering.
- * Journal of Computer Networks and ISDN Systems.
- * Journal of Computer and System Sciences.
- * Journal of Computer Communications.
- * Journal of Data & Knowledge Engineering.
- * Journal of Information Systems.
- * Journal of Information and Software Technology.
- * Journal of Information Processing and Management.
- * Journal of Microprocessors and Microsystems.
- * Journal of Parallel and Distributed Computing.
- * Journal of Performance Evaluation.
- * Journal of Telecommunication Systems.
- * Journal of Wireless Personal Communications.
- * Journal of Zhejiang University-Science A, Springer Publishing
- * International Journal of Computers and Industrial Engineering.
- * International Journal of Computer Simulation.
- * ISRN Communications and Networking
- * Online Journal for Science and Technology.
- * Optics Express- Journal of the Optical Society of America
- * Parallel Processing Letters.

REVIEWER FOR BOOKS

- * Reviewer of book proposals for IEEE Computer Society Press, 1995-1997.
- * Reviewer of full book manuscripts for IEEE Computer Society Press, 1996-1997.
- * Reviewer of networking books for McGraw Hill, 2000-2002.

PROGRAM COMMITTEE CHAIR AND OTHER SERVICES

- * Oxford Journals Wilkes Award Selection Committee, Member, 2010 and 2011.
- * Guest Co-Editor, Journal of Simulation Practice & Theory, Special Issue on selected papers from the 2nd Conference on Simulation Methods and Applications, Elsevier Science Publishing, April 2002.
- * Program Chair, Second Conference on Computer Simulation Methods and Applications, October 2000, http://www.cs.ucf.edu/csma2000.

- * Program Chair, First Conference on Computer Simulation Methods and Applications, November 1998, http://www.cs.ucf.edu/csma98.
- * External Reviewer, number of tenure and promotion applications at other universities.
- * Reviewer, complete volumes of the Journal of Computer Systems Science and Engineering for recommendations to the editorial board.

CONFERENCE SERVICES

- * Technical Program Committee member, IEEE International Conference on Computing, Networking and Communications-Wireless Networks Symposium (ICNC'13-WN), San Diego, CA, January 28-31, 2013.
- * Technical Program Committee member, IEEE International Communications Conference (ICC)- Ad-hoc and Sensor Networking Symposium (ICC'13-AHSN), Budapest, Hungary, June 9-13, 2013.
- * Technical Program Committee member, IEEE International Communications Conference (ICC)- Wireless Networking Symposium (ICC'13-WN), Budapest, Hungary, June 9-13, 2013.
- * Technical Program Committee member, IEEE International Communications Conference (ICC)- Wireless Communications Symposium (ICC'13-WCS), Budapest, Hungary, June 9-13, 2013.
- * Technical Program Committee member, IEEE International Conference on Computing, Networking and Communications-Wireless Communications Symposium (ICNC'13-WC), San Diego, CA, January 28-31, 2013.
- * Technical Program Committee member, IEEE Wireless Communications and Networking Conference (WCNC'13), Shanghai, China, April 7 10, 2013.
- * Technical Program Committee member, IEEE International Wireless Communications and Mobile Computing Conference (IWCMC-2013)- General Symposium, Cagliari, Sardinia—Italy, July 1-5, 2013.
- * Technical Program Committee member, The 22nd Wireless and Optical Communication Conference- Networks Symposium (WOCC 2013-Networks), Chongqing, China, May 16-18, 2013 (Sponsored by IEEE).
- * Technical Program Committee member, The Ninth International Conference on Networking and Services (ICNS 2013), Lisbon, Portugal, March 24 29, 2013.
- * Technical Program Committee member, The Fifth International Conference on Advances in Mesh Networks (MESH 2012), Rome, Italy, August 19
- * Technical Program Committee member, The 22nd Wireless and Optical Communication Conference- Wireless Symposium (WOCC 2013- Wireless), Chongqing, China, May 16-18, 2013 (Sponsored by IEEE).
- * Technical Program Committee member, The Third International Conference on Advanced Collaborative Networks, Systems and Applications (COLLA 2013), Nice, France, July 21-26, 2013.
- * Technical Program Committee member, The 37th IEEE Conference on Local Computer Networks (LCN), Clearwater, Florida, October 22-25, 2012.
- * Technical Program Committee member, IEEE GLOBECOM Ad Hoc and Sensor Networking Symposium (GC-AHSN 2012), Anaheim, CA, December 3-7, 2012.
- * Technical Program Committee member, IEEE GLOBECOM Wireless Communications Symposium (IEEE GC-WC 2012), Anaheim, CA, December 3-7, 2012.
- * Technical Program Committee member, First IEEE International Conference on Communications in China Communications QoS and Reliability Symposium (ICCC-CQR'12), Beijing, China, August 15-18, 2012.

- * Technical Program Committee member, The 12th IEEE International Workshop on Wireless Local Networks (WLN 2012), Clearwater, Florida, October 22-25, 2012.
- * Technical Program Committee member, The IARIA Second International Conference on Mobile Services, Resources, and Users (MOBILITY 2012), Venice, Italy, October 21-26, 2012.
- * Technical Program Committee member, IEEE International Conference on Computational Intelligence and Communication Networks (CICN 2012), Gwalior, India, November 3-5, 2012
- * Technical Program Committee member, The Eighth International Conference on Networking and Services (ICNS 2012), St. Maarten, Netherlands Antilles, March 25-29, 2012.
- * Technical Program Committee member, Fifth IFIP International Conference on New Technologies, Mobility and Security NTMS'12- Mobility & Wireless Networks Track, Istanbul, Turkey, May 7-10, 2012.
- * Technical Program Committee member, IEEE International Conference on Communication Systems and Network Technologies (CSNT- 2012), Rajkot, India, May 11-13, 2012.
- * Technical Program Committee member, The International Conference on Selected Topics in Mobile & Wireless Networking (iCOST'2012), Avignon, France, July 2-4, 2012.
- * Technical Program Committee member, 23rd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC2012)- Track 3: Mobile and Wireless Networks, Sydney, Australia, September 9-12, 2012.
- * Technical Program Committee member, International Conference on Computing, Networking and Communications, Wireless Communications Symposium (ICNC'12 WC), Maui, Hawaii, USA, 30 January 30 February 2, 2012.
- * Technical Program Committee member, IEEE International Communications Conference (ICC) Ad-hoc and Sensor Networking Symposium (ICC'12-AHSN), Ottawa, Canada, June 10-15, 2012.
- * Technical Program Committee member, IEEE International Communications Conference (ICC) Wireless Networks Symposium (ICC'12-WN), Ottawa, Canada, June 10-15, 2012.
- * Technical Program Committee member, IEEE GLOBECOM Wireless Communications Symposium (IEEE GC-WC 2011), Houston, Texas, December 5-9, 2011
- * Technical Program Committee member, IEEE International Conference on Communication Systems and Network Technologies (CSNT- 2011), Katra Jammu, India, June 3-5, 2011.
- * Technical Program Committee member, The Fourth International Conference on Advances in Mesh Networks (MESH 2011), French Riviera, Nice/Saint Laurent du Var, France, August 21-27, 2011.
- * Technical Program Committee member, The International Conference on Parallel Processing (ICPP 2011)- Wireless/Sensor Networks and Pervasive Computing track, Taipei, Taiwan, September 13-16, 2011.
- * Technical Program Committee member, The 36th IEEE Conference on Local Computer Networks (LCN'11), Bonn, Germany, October 4-7, 2011.
- * Technical Program Committee member, IEEE International Conference on Computational Intelligence and Communication Networks (CICN 2011), Gwalior, India, October 7-9, 2011.
- * Technical Program Committee member, The International Conference on Selected Topics in Mobile & Wireless Networking (iCOST'2011), Shanghai China, October 10-12, 2011.
- * Technical Program Committee member, World Congress on Information and Communication Technologies (WICT 2011), Mumbai, India, December 11-14, 2011.
- * Technical Program Committee member, IEEE International Communications Conference (ICC) Wireless Networking Symposium (ICC'11-WNS), Kyoto, Japan, 5-9 June, 2011.
- * Technical Program Committee member, IEEE Wireless Communications & Networking Conference (WCNC'11), Cancun, Mexico, 28-31 March, 2011.

- * Technical Program Committee member, IEEE International Communications Conference (ICC) Adhoc, Sensor and Mesh Networking Symposium (ICC'11 AHSM), Kyoto, Japan, 5-9 June, 2011.
- * Technical Program Committee member, IEEE GLOBECOM Wireless Communications Symposium (IEEE GC-WC 2010), December 6-10, 2010, Miami, Florida, USA.
- * Technical Program Committee member, The 35th IEEE Conference on Local Computer Networks (LCN'10), Denver, Colorado, October 11-14, 2010.
- * Technical Program Committee member, IEEE International Conference on Computational Intelligence and Communication Networks 2010 (CICN 2010), Bhopal, India, November 26-28, 2010.
- * Technical Program Committee member, IEEE GLOBECOM Ad Hoc and Sensor Networking Symposium (IEEE GC-ADSN 2010), Miami, Florida, December 6-10, 2010.
- * Technical Program Committee member, The 10th IEEE International Workshop on Wireless Local Networks (WLN), Denver, Colorado, October 11-14, 2010.
- * Technical Program Committee member, IEEE International Communications Conference (ICC) 2010 Ad-hoc, Sensor and Mesh Networking Symposium (ICC'10 AHS), Cape Town, South Africa, May 23-27, 2010.
- * Technical Program Committee member, The 34th IEEE Conference on Local Computer Networks (LCN), Zürich, Switzerland, 20-23 October 2009.
- * Technical Program Committee member, The 9th IEEE International Workshop on Wireless Local Networks (WLN), Zürich, Switzerland 20-23 October 2009.
- * Program Committee Member, IEEE ICC (International Conference on Communications)-Adhoc and Sensor Networking Symposium, Dresden, Germany, June 14-18, 2009.
- * Program Committee Member, The 33rd Annual IEEE Conference on Local Computer Networks (LCN), Montreal, Quebec, Canada, 14-17 October, 2008.
- * Program Committee Member, The 8th IEEE International Workshop on Wireless Local Networks (WLN), Montreal, Quebec, Canada, 14-17 October, 2008.
- * Reviewers for 6th International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2009, Orlando, FL, July 2009.
- * Program Committee Member, 7th IEEE International Workshop on Wireless Local Networks (WLN), in conjunction with the 32nd IEEE Conference on Local Computer Networks (LCN), Dublin, Ireland, October 2007.
- * Reviewer, IEEE Wireless Communications & Networking Conference (WCNC 2007), Hong Kong, March 2007.
- * Program Committee Member, The 6th IEEE Workshop on Wireless Local Networks, Tampa, FL, November 2006.
- * Reviewer, The 2nd EuroNGI Conference on Next Generation Internet Design and Engineering, Valencia, Spain, 2006.
- * Program Committee Member, the 4th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-05), March 8-11, 2006.
- * Program Committee Member, IEEE Symposium on Mobile Computing (WirelessCom 2005), Sheraton Maui Resort, Hawaii, June 2005.
- * Program Committee Member, 5th IEEE Workshop on Wireless Local Networks, Sydney Australia, November 15-17, 2005.
- * Program Committee Member, IEEE International Conference on Telecommunications and Networking TeNe05, December 2005.
- * Reviewer, IEEE International Performance Computing and Communications Conference, Phoenix, Arizona, April 2005.
- * Program Committee Member, The 3rd ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-05), American University in Cairo, January 3-6, 2005.

- * Program Committee Member, 4th IEEE Workshop on Wireless Local Networks, Tampa, November 2004.
- * Program Committee Member, IEEE Workshop on Wireless Local Networks, Bonn, Germany, October 20-24, 2003.
- * Organizing Committee Member/ International Liaison Chair, the 4th IEEE/IPSJ International Symposium on Applications and the Internet, Tokyo, Japan, January 2004.
- * Program Committee Member, the 3rd IEEE/IPSJ International Symposium on Applications and the Internet, Orlando, FL, January 2003.
- * Organizing Committee Member, IEEE Vehicular Technology Conference (VTC for Wireless Technology), September 2003.
- * Program Committee Member, the 11th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOT'03, October 2003.
- * Reveiwer, IEEE INFOCOM 2004.
- * Reviewer, Hawaii International Conference on Systems Sciences, 2004.
- * Reviewer, IEEE Wireless Communications and Networking Conference, WCNC 2003.
- * Reviewer, Hawaii International Conference on Systems Sciences 2003.
- * Reviewer and Local Arrangement Co-Chair, IEEE Vehicular Technology Conference, VTC 2003
- * Program Committee Member, IEEE Workshop on Wireless Local Networks, November 2002.
- * Program Committee Member, 17th International Symposium on Computer and Information Sciences, October 2002.
- * Program Committee Member, IEEE Workshop on Wireless Local Networks, November 2001.
- * Program Chair, the 2nd Conference on Simulation Methods and Applications (CSMA'2000), October 28-30, Orlando, FL, 2000.
- * Program Committee Member, Joint Eighth IFIP Workshop and IFIP Working Conference on Performance Modeling and Evaluation of ATM & IP Networks (IFIP ATM \& IP 2000), Ilkley, West Yorkshire, U.K., July 17-19, 2000.
- * Video-telecast Panelist, 13th European Simulation Multiconference, June 1999.
- * Reviewer, IEEE International Performance Computing and Communications Conference, Phoenix, Arizona, 10-12 February, 1999.
- * Program Chair, the First Conference on Simulation Methods and Applications (CSMA'98) Orlando, November 1-3, 1998.
- * Session Chair, "Temporal and spatial databases", IEEE International Conference on Data Engineering (ICDE'98), February 1998.
- * Panelist, Session on "Security and Protection in Internet and Digital Environments" the 1998 Annual Meeting of the Society of American Archivists, September 1998.
- * Reviewer, IEEE International Conference on Network Protocols (ICNP '97), Atlanta, GA, 28-31 October 1997.
- * Reviewer, International IEEE GLOBECOM Conference, Singapore Nov 13-17, 1995.
- * Reviewer, International ACM SIGIR Conference on Information Retrieval, Seattle, Washington, July 9-13, 1995.
- * Session Chair, Session on "High-speed Multimedia Information Networking", IEEE SouthCon Conference, Orlando, FL, March 31, 1994.
- * Reviewer, International IEEE GLOBECOM Conference, San Francisco, CA, 28 Nov.-2 Dec. 1994.
- * Reviewer, International IEEE GLOBECOM Conference, Houston, TX, December 1993.
- * Session Chair, Session on "FDDI Networks" in the First International Conference on Computer Communications and Networks (IC3N), San Diego, CA, June 1992.

Selected Synergistic Activities at UCF

- * Served as Co-PI in a major HBCU/MI research enhancement grant (DOD/ARO grant DAAH04-95-1-0250, 1995-2001); UCF served as the non-minority school in this grant. Bassiouni led 3 projects on scalable relevance filtering, cellular networks and conformance testing. He also mentored (and coauthored papers with) HBCU/MI faculty from Grambling State University, University of Houston-Downtown, and Florida A&M University.
- * Served as Co-PI in a 5-year DOD MURI grant (ARO grant DAAD19-01-1-0502) titled "Modeling and Simulation Environment for Critical Infrastructure Protection"; Bassiouni collaborated with researchers from University of Wisconsin-Madison, George Washington University, and Florida State University; and led a project on recovery protocols for reconfigurable wireless/sensor networks.
- * Bassiouni contributed to curriculum improvement at UCF including serving as PI of an ARPA curriculum grant that developed a two-semester undergraduate sequence in software engineering (1996), Co-PI of a NSF Innovative Teaching grant that introduced 3 undergraduate courses on distributed systems, networks and security/protection (2000-2003), Co-PI of an CRCD NSF grant for multidisciplinary curriculum in Computer Science and Optics (1999-2002). He also developed courses on modern networks and wireless communications for UCF's distance learning program at AT&T- Lake Mary, Florida.
- * Has promoted multidisciplinary research at UCF; he initiated the networking research at the Institute for Simulation and Training (IST) of UCF and collaborated with IST in a number of research projects (1989-1993) including one in which he introduced the concept of filtering reliability in distributed interactive simulation; he has also served as the first chair of UCF "Internet 2" committee (1998-2001) that fostered and coordinated next generation internet applications at UCF and acquired NSF funding for campus access to the vBNS/Abilene high speed network. He also served as the Co-PI in an IGERT grant for graduate training in Optical Networks.