VITAE
Dr. Khaled Kamel
Professor
Computer Science Department
July 2015

1. **Education**

   1982, Ph.D., Electrical and Computer Engineering, University of Cincinnati.

   1976, M.Sc., Computer Science, University of Waterloo, Ontario, Canada.

   1974, B.Sc., Science, Ain-Shams, Cairo, Egypt

   1971, B.Sc., Electrical Engineering, Cairo University,
   Cairo, Egypt.

2. **Employment**

   a.　　Full-time Employment

   　　Texas Southern university
   　　College of Science and technology
   　　Department of Computer Science
   　　Houston, TX
   　　Position: Chairman and Professor, July 2005 – June 2011
   　　　　　　Professor, July 2011 - Present

   　　University of Houston
   　　Electrical and Computer Engineering Department
   　　Houston, TX
   　　Position: Adjunct Professor, August 2007 – July 2011

   　　Abu Dhabi University
   　　College of Computer Science and Information Technology
   　　Abu Dhabi, United Arab Emirates
   　　Position: Founding Dean and Professor, August 2004 – June 2005

   　　United Arab Emirates University
   　　College of Information Technology
   　　Al Ain, United Arab Emirates
   　　Position: Founding Dean and Professor, January 2001-August 2003

   　　University of Louisville, Computer Engineering and Computer Science Department,
   　　Louisville, Kentucky

Position: Professor Emeritus, January 2001-Present
        Chairman and Professor, July 1987-January 2001
        Associate Professor, July 1983 - June 1987
        Assistant Professor, August 1979 - June 1983

General Electric Company, Air Craft Engine Group, Evendale, Ohio
Dates: July 1978 - September 1979
Position: Instrumentation Engineer

Faculty of Engineering, Cairo University, Cairo, Egypt
Dates: September 1971 - September 1974
Position: Full-time Instructor

b.   Professional Consulting

PLC Automation, Louisville, KY
Dates: September 1990 – July 2005
Work: Industrial Consulting, Automation, and Training.

NASA Kennedy Space Center, Summer Faculty Fellowship
Dates: Summer 1996
Work: Research on the replacement of the Launch Processing Computer System at Kennedy Space Center in Florida.

Hern Reed, Harper & Eisinger (Louisville, Kentucky)
Dates: 1995-1996
Work: Expert consultant for Artificial Intelligence, Inc. (Seattle, Washington) in a Medical Software liability case.

Vermont America, Multimetal Co., Louisville, Kentucky
Dates: 1986-1992
Work: Implemented and supported a microcomputer network for material handling. Provided enhancement and consultant to the operational system.

U.S. Army ARDEC Picatinny Arsenal, NJ 07806
Dates: Summer 1988
Work: Research in Armaments, Advanced Sensor Processing for the Army self-contained Munitions (SCM) seekers.

IBM, University Program, Lexington, Kentucky
Dates: June 1982 - 1987
Work: Part-time teaching for IBM employees and helping in the development of courses offered in the CS University Program.

GE, Major Appliance Business Group, Louisville, Kentucky

Dates: 1981-1987
Work: Lecturer for the Advanced Engineering courses (ABC Program).

IBM, University Program Division, Austin, Texas
Dates: April 1982
Work: Participated in the planning and development of an one-week pilot course "The Design of Operating Systems" for the IBM employees.

IBM, Information Systems Division, Boca Raton, Florida
Dates: August 1981
Work: Taught one-week courses "Computer Science Preparation" for IBM employees.

3 Refereed Journal Publications and Books

S. Smys, Khaled Kamel, and Robert Bestak, "Innovative Computing Structures for Future Wireless Personal Networks", ACM/Springer Mobile Networks & Applications (MONET), http://www.springer.com/engineering/signals/journal/, special issue, Fall 2015.

Eman Kamel and Khaled Kamel, "Programmable Logic Controllers: Hands-on using RSLogix 500 / LogixPro 500", McGrew-Hill professional, planned for July 2015 publication.

Khaled Kamel and Eman Kamel, "Programmable Logic Controllers: Industrial Control", Kindle Edition, McGraw-Hill Professional (**ASIN:** B00DQSTQA8), May 2014.

Khaled Kamel and Eman Kamel, "Programmable Logic Controllers: Industrial Control Downloads", Errata, For Instructors, For Students interactive web sites, (http://www.mhprofessional.com/product.php?isbn=0071810455), McGraw-Hill Professional, January 2014.

Khaled Kamel and Eman Kamel, "Programmable Logic Controllers: Industrial Control", First Edition, McGraw-Hill Professional (**ISBN:** 0071810455 / 9780071810456), August 2013.

Olugbenga Olumuyiwa, Aladdin Sleem, and Khaled Kamel, "Real Time Performance Evaluation of Voice Over IP Call Quality Under Varying Network Conditions**",** the International Journal of Applied Science and Technology (IJAST), Vol. 1 No. 6**,** December 2011.

Omar Essa, Aladdin Sleem, Hany Harb, and Khaled Kamel, "Three-Tier Architecture for Multimedia Quality of Service Management in IP Networks", the

International Engineering Consortium (IEC) Annual <u>Review of Communication</u>, Volume 60, December 2007.

K.A. Kamel, A. Kumar, and A. Sleem," Handoff Management in Wireless Data Networks using Topography-Aware Mobility Prediction," Annual <u>Review of Communications</u>, Volume 58, November 2005.

K.A. Kamel, A. Kumar, A. S. Elmaghraby, and Alok Srivastava," Generalized Objected Oriented Simulation Frame Work for Multimedia-on-Demand Services," Annual <u>Review of Communications</u>, Vol. 55, ISBN: 1-931695-02-4, May 2002.

K.A. Kamel, A. Kumar, and Sanjay Ahuja,"Integrated Reliability and Capacity-Based Resource Allocation in Distributed Systems," Annual <u>Review of Communications</u>, Vol. 53, ISBN: 0-933217-80-3, September 2001.

K. Kamel and E. Kamel, "Economic Assessment of an Irrigation Canal Automation and Control Project," Accepted by the <u>Journal of Engineering Valuation and Cost Analysis</u>, Volume 4, Issue 1, May 2000.

K.A. Kamel, A. Aly, and A. Kumar, "Scheduling on Top of Network of Heterogeneous Workstations," Annual <u>Review of Communications</u>, Vol. 51, April 1999

K.A. Kamel, H. Hassan, and E. Kamel, "OS/2 PC Based Multidrop Network," Annual <u>Review of Communications</u>, Vol. 49, April 1996.

K. Kamel, A. Desoky, "The Use of Attributed Automation in the Recognition of Handwritten Numerals," Contemporary <u>Mathematics Series</u>, Vol. 190, 1995.

K. Kamel and A. Kumar, <u>Editors</u> "Proceeding of the International Conference on Parallel and Distributed Computing and Systems," published by ISCA, 1993.

K. Kamel and A. Riehl, "A Model for Addition of Nodes to an Existing Computer Network," <u>International Journal of Microcomputer Applications</u>, ACTA Press, Vol. 11, No. 1, 1992.

K. Kamel, "SAA: Image Processing," <u>Computing Reviews Journal</u>, Association for computing Machinery, April 1992.

K. Kamel, "Machine Vision and Digital Image Processing Fundamentals," <u>Computing Reviews Journal</u>, Association for Computing Machinery, April 1991.

K. Kamel, S. Alexander, "An Architecture for Sensor Fusion in Intelligent Process Monitoring," <u>Computers and Industrial Engineering Journal</u>, 1988.

K. Kamel, "Review of the Proceedings of the IEEE Computer Society International Symposium on Medical Imaging," <u>The International Journal of Mathematical Modeling</u>, Vol. 14, p. 950, 1987.

K. Kamel, M. Mesmer, "Distributed Electronic Mailing System for a PC-based LAN," <u>ISMM Software and Hardware Applications of Microcomputers</u>, Editor: G.K.F. Lee, ACTA Press, 1986, Vol. 97, pp. 149-153.

K. Kamel, "A Low Cost Microprocessor-Based Industrial Robot Controller," <u>ISMM Mini and Microcomputers and their Applications</u>, Editor: M. Hamza, ACTA PRESS, Vol. 67, 1984, pp. 39-43.

K. Kamel, "Pattern Recognition and Computer Vision," <u>ACM Computing Reviews Journal</u>, Vol. 353, p. 249, April 1985.

4.   Refereed Conference Proceedings

Khaled Kamel and Aladdin Sleem, "Improving Enterprise Network Performance During Hurricane Recovery," Texas Hurricane conference on preparedness, loss mitigation, and rapid recovery , University of Houston, August 2009.

O. Essa, N. El-Ramly, H. Harb, E Kamel, and Khaled Kamel, "Multimedia Quality of Service Case Study," International Conference on High Performance Computing, Networking and Communication Systems (HPCNCS-07),July 9-12, 2007, Orlando.

Omar Essa, Nabaway El-Ramly, Hany Harb, and Khaled Kamel, "Scalability Solutions for Multimedia Real-time Control Protocol," The 2006 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'06): June 26-29, 2006, Las Vegas.

AlaaEldin Sleem, Anup Kumar, and Khaled Kamel, "Using Cell Topography in Predicting Intra-Cell Mobility in Wireless Internet Networks," ISCC'2003, Turkey July 2003.

W.J. Sandman III, A. Kumar, K. Kamel, "A Comparative Study of Programming and Performance of MPI and TREADMARKS on Distributed Networks," 15th International Conference on Parallel and Distributed Computing Systems (PDCS 2002), September 2002.

AlaaEldin Sleem, Anup Kumar, and Khaled Kamel, "Neural Network-Based Mobility Support for Wireless Internet Hosts," the sixth IEEE Symposium on Computers and Communications, December 2001, India.

Khaled Kamel and AlaaEldin Sleem, "A Comparative Study of Parallel Vs

Distributed Genetic Algorithm Implementation for ATM Networking Environment," the fifth IEEE Symposium on Computers and Communications, July 2000, France.

Khaled Kamel and Emad Boctor, " An Innovative General Purpose PC-based 3D Ultrasound System Case Study," Research Louisville, Jewish Hospital, Louisville, KY, November 1999.

Khaled Kamel and Emad Boctor, "A Comparative Study Between 2D Ultrasound and 3D Ultrasound of Folliculusgensis in Patients Undergoing Ovulation Induction," Research Louisville, Jewish Hospital, Louisville, KY, November 1999.

Khaled Kamel and Alaa Aly, "Parallel Programming on Top of Networks of Heterogeneous Workstations," ISCA International Conference on Computer Applications in Industry and Engineering, Las Vegas, November 1998.

Khaled Kamel and Alaa Aly, "An Improved Algorithm for Task Assignment," ISCA International Conference on Parallel and Distributed Systems, New Orleans, October 1997.

Khaled Kamel and M. Abu-El-Magd, "Economic Assessment of an Irrigation Canal Automation and Control Project", Proceedings of the IEEE International Symposium on Intelligent Control, Istanbul, Turkey, July 1997

Khaled Kamel and John Cope, "A Multidrop PC Network/ Database Server for Material Flow and Inventory Control, "Proceedings of the IEEE International Symposium on Intelligent Control, Istanbul, Turkey, July 1997

Khaled Kamel and E. Kamel, " Economic Assessment of an Irrigation Canal Automation," Proceedings of the International Conference on Engineering Design and Automation, March 1997.

K. Kamel and A. Elmaghraby, "Video-On-Demand Architecture: an Agent-Based Approach," Proceedings of the ISCA Conference, San Francisco, CA, March 1996.
K. Kamel and A. Kumar, "Object Oriented Simulation of Multimedia on Demand Services over ATM Network," Proceedings of the International conference on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems, February 1996.

K. Kamel, T. El-Sadany, and S. El-Gendy, "Distributed System Task Allocation: A Genetic Algorithm Perspective," Proceedings of the International Conference on Parallel and Distributed Computing and Systems, 1995.

K. Kamel and Eman Kamel, "An Integrated Automation system for Irrigation Water Control," ISRAM '94 Proceedings, Maui, HI.

K. Kamel and E. Kamel, "A PC Based LAN with Multi-Drop Network for Inventory Control and Material Handling," ISRAM '94 <u>Proceedings</u>, Maui, HI.

K. Kamel, T. El-Sadany, and A. Desoky, "The Use of Attributed Automation in the Recognition of Handwritten Numerals," <u>Proceedings</u> of the International Conference on Mathematical Analysis and Signal Processing," Cairo University, January 1994.

K.A. Kamel, A.S. Elmaghraby, and A.M. Riehl, "Integrating Artificial Intelligence in an Engineering computer Science Curriculum, <u>Proceedings</u> of the 1993 ASEE Southeastern Regional Conference, Nashville, Tennessee, April, 1993.

K. Kamel, "Handwritten Numeral Recognition Using Syntactic-Semantic Recognition Methods and Neural Network," <u>Proceedings</u> of the ISCA Conference, Louisville, Kentucky, Oct. 1993.

K. Kamel, A. Elmaghraby, and A. Riehl, "A Framework for Design and Evaluation of Naval Weapon Systems," <u>Proceedings</u> of the Product Engineering for Naval Systems Technical Symposium, Louisville, Kentucky, 1992.

K. Kamel and A. Riehl, "A Constrained Searching Model To Expand An Existing Computer Network," <u>Proceedings</u> of the ISMM International Conference on Computer Applications in Design, Simulation and Analysis, March 1992.

K. Kamel and A. Riehl, "An Instructional Model To Build A Computer Network By Adding Nodes," <u>Proceedings</u> of the 1992 ASEE Annual Conference, Toledo, Ohio.

K. Kamel and A. Riehl, "A Model for Addition of Nodes to an Existing Computer Network," <u>Proceedings</u> of the 24th Annual Simulation Symposium, April 1991.

K. Kamel and A. Riehl, "A Simulation Model for Expansion of Existing Communications Network," <u>Proceedings</u> of the ISMM International Symposium, ACTA, ISBN 0-88986-176-5, Dec. 1990.

K. Kamel and R. Abnous, "A Dynamic Vision Classification System Using Furrier Descriptors," <u>Proceedings</u> of the IEEE Southeastcon, April 1990.

K. Kamel and Cecil Moore, "Expert System for Network Configuration and Diagnosis," <u>Proceedings</u> of the IEEE Southeastcon, April 1990.

K. Kamel, A. Desoky, "PC-Based Entropy Measures for Analyzing Leakage from Micro Vessels," <u>Proceedings</u> of SPIE Medical Imaging IV, January 1990.

K. Kamel, "A Consensor Architecture for an Intelligent Workstation in Material Handling," <u>Proceedings</u> of IASTED International Symposium (Robotics and Manufacturing), Nov. 1989.

K. Kamel, G. Sun, "An Adaptable Speech System for MS-DOS Based Personal Computers", IEEE Southeast Conference Proceeding, April 1989

K. Kamel, G. Sun, "Programmable Control Language for Building Automation", IEEE Southeast Conference Proceeding, April 1989.

G. Sun, K. Kamel, "An Interactive System for Global Ship Monitoring", IEEE Southeast Conference Proceeding, April 1989

K. Kamel, "A PC Interactive Expert System for Control Loop Modeling and Tuning," Proceeding of the IASTED International Symposium on Expert Systems, Los Angeles, CA, December 1988.

K. Kamel, I. Imam, "A Computerized Transcription System for Cursive Shorthand Writing", IEEE Southeast Conference Proceeding, April 1988.

K. Kamel, A. Elmaghraby, "The use of Multiple Optic Ram Cameras for Robotics Applications", IEEE Southeast Conference Proceeding, April 1988.

K. Kamel, and W. Hahnert, "Executive Control of a Multiprogramming Environment for an Energy Management System," Proceeding of the IEEE Conference (SOUTHEASTCON '87), Tampa, FL., April, 1987, pp. 467-471.

K. Kamel and S. Huang, "The Implementation of Optic RAM Based Color Vision Manipulator, Proceeding of the IEEE Conference (SOUTHEASTCON '87) Tampa, FL., April, 1987, pp. 297-302.

K. Kamel, and J. Graham, "Preprocessing of Registered Range and Luminous Images for Industrial Applications", Proceedings of the Symposium on Advanced Manufacturing, Lexington, Kentucky, September 1987, pp. 81-84.

K. Kamel, A. Desoky, R. Mattingly, "Evaluation and Comparison of Digital Image Restoration Techniques," Proceedings of ISMM International Symposium on Software and Hardware Applications of Microcomputers, Beverly Hills, CA, February 1986.

K. Kamel and R. Abnous, "Data Acquisition Control for Building Management System," Proceeding of IASTED Sixth International Symposium (ROBOTICS AND AUTOMATION '85), Santa Barbara, CA, May 1985, pp. 132-135.

K. Kamel, and R. Mosgrove, "Design and Implementation of an Inexpensive Image Processing Laboratory", Proceeding of the IEEE Conference (SOUTHEASTCON 84), Louisville, KY, April 1984.

K. Kamel, and J. Leger, "Image Segmentation and Data Compression Using Quartic Trees", Proceeding of the IEEE Conference (SOUTHEASTCON '84), Louisville,

KY, April 1984.

K. Kamel, and J. Linton, "A Micro-Computer Controller for an Industrial Robot", Proceeding of the IEEE Conference (SOUTHEASTCON 84), Louisville, KY.

K. Kamel, "Processing and classification of low contrast ship images", the Proceedings of the IEEE Conference. (SOUTHEASTCON '83), Orlando, Florida, April 1983.

K. Kamel, and R. Wolfe, "A new algorithm for picture segmentation by uniform paging", the Proceedings of the IEEE Conference (SOUTHEASTCON '83), Orlando, Florida, April, 1983, pp. 124-128.

K. Kamel, and W. G. Wee, "A bottom-up syntactic approach to picture segmentation, generation of description and classification", Proceedings of the International Society for Mini and microcomputers (ISMM), Cambridge, Mass., July 1982, pp. 70-75.

K. Kamel, and T. McConnell, "A microprocessor based signature verification system", Proceedings of Twentieth ISMM International Symposium, Cambridge, Mass., July, 1982, pp. 66-70.

K. Kamel and W. Wee, "A Bottom-Up Structural Approach to Picture Segmentation, Generation of Description, and Matching," NATO Advanced Study Institute Proceeding on Pattern Recognition Theory and Applications, Oxford, England, March, 1981.

5.   Professional Society Memberships

IEEE Senior Member
IEEE Computer Society
International Society of Mini and Micro Computers
IASTED Society for Robotics and Automation
Tau Beta Pi Eminent Member

6.   Memberships in Conference Organizing Boards

International Sympossium on E-Learning, United Arab Emirit University, College of Information Technology, Dubai 2002, Symposium Chair.

ISCA International Conference on Computer Applications in Industry and Engineering, Las Vegas, November 1998, Conference Chair.

IEEE International Symposium on Intelligent Control, Istanbul, Turkey, July 1997, Program Committee Member.

International Society of Robotics and Applied Manufacturing, ISRAM, Maui, HI 1994, Program Committee Member.

International Conference on Mathematical Analysis and Signal Processing," Cairo University, January 1994, Program Committee Member.

International Society for Computer Applications, ISCA Conference, Louisville, Kentucky, Oct. 1993, Program Committee Member.

The 1989 ACM 17th Annual Computer Science Conference, February 21-23, 1989, Louisville, Kentucky, Program Chair and Organizer.

IASTED Sixth International Symposium (ROBOTICS AND AUTOMATION '85), Santa Barbara, CA, May 1985, Program Committee Member.

IEEE Conference (SOUTHEASTCON '84), Louisville, KY, April 1984, Program Committee Member.

7. **Conferences Organized**

International Sympossium on E-Learning, United Arab Emirit University, College of Information Technology, Dubai 2002, Symposium Chair.

ISCA International Conference on Computer Applications in Industry and Engineering, Las Vegas, November 1998, Conference Chair.

The 1989 ACM 17th Annual Computer Science Conference, February 21-23, 1989, Louisville, Kentucky, Program Chair and Organizer.

8. **Reviewing of papers submitted for publication to Professional Societies**

IETE Communications journal.

National Academy Science Letters.

Computing Reviews Journal, Association for computing Machinery.

International Journal of Microcomputer Applications, ACTA Press.

9. **Awards and Honors by Professional and National Societies**

Tau Beta Pi Eminent Member.

IEEE Computer Society Kentucky Chapter Chair, 1992 – 1994.

IEEE Computer Society United Arab Emirates Chapter Chair, 2001 – 12003.

10. Awards and Honors by Universities

Professor Emeritus (2001), College of Engineering, University of Louisville, Louisville, KY.

11. Funded Grants and Contracts

Siemens USA Industrial Training, "Industrial Control I & II, Houston August 18 to August 29, 2014", two weeks workshops tuition scholarship, $5000.

Computer Science Students Recruitment and Retention Enhancements, PI and Project Director, $79,000, Texas Work Force commission and the US Department of labor, October 2007 to November 2008.

NSF Science, Technology, and Engineering Enhancement Program (STEP). TSU College of Science and Technology infrastructure and curriculum enhancements project, Dr. Bobby Wilson project PI. Computer Science funding $400,000, fall 2006 to spring 2011.

E-Commerce: Adoption, Acceptance, and Prototyping in Abu Dhabi, Abu Dhabi Chamber of Commerce and UAEU, June 2002 – June 2003, PI and Project Director, DH 400,000.

The Software Business Incubator Development Program for Egypt, United States Agency for International Development (USAID), Co-Director, $4,859,300 (Partial funding secured)

Master of Science in Computer Science Intake V program, RITI, Cairo, Egypt, Director, $150,000, 2000-2001.

Master of Science in Computer Science Intake IV program, RITI, Cairo, Egypt, Director, $162,500, 1999-2000.

Master of Science in Computer Science Intake III program, RITI, Cairo, Egypt, Director, $162,500, 1998-1999.

Raganatham Associate and MSD, "Oracle Database for Customer Complaints and Company Compliance", $25,000, Director, 1997-1998.

Hanover College Indiana, "Object Oriented Programming in Computer Science

Core", $17,500, Director, 1997-1998.

Master of Science in Computer Science Intake II program, RITI, Cairo, Egypt, Director, $150,000, 1997-1998.

Master of Science in Computer Science Intake I program, RITI, Cairo, Egypt, Director, $150,000, 1996-1997.

Lexmark Computer Equipment Grant of Network High Capacity Laser Printer, valued at $70,000, Co-Director, 1996.

Microsoft Instructional Laboratories Grant of Software Licenses, valued at $40,000, Co-Director, 1995.

National Science Foundation (EPSCoR), "Interdisciplinary Research in A.I. and Automation", $79,920 (90-92 Budget), Co-Director, Dec 1990.

National Science Foundation (EPSCoR), "Interdisciplinary Research in AI and Automation", 1988, $56,159 (88-89 Budget), Co-Director, March 1988.

Symbolic Inc., "Structured Approach to Image and Speech Perception", March 1987, Equipment grant, $70,150, Co-Director.

National Science Foundation (EPSCoR), "Interdisciplinary Research in AI and Automation," March 1986, $216,400 (86-88 Budget), Co-Director.

General Electric Appliance Park, "Advanced Assembly Automation Research", September 1985, $44,966, Co-Director.

Naval Ordnance Station-Louisville, "Software Analysis, Implementation and Documentation of PHALANX System," September 1985, $69,147, Director.

Naval Ordnance Station-Louisville, "NOSL Computer Aided Design." July 1985, $60,395, Director.

Digital Equipment Company PEER Project Grant, an Ethernet Local Area Network at the University of Louisville Speed Scientific School, 1984-1985, $180,000, Co-Director.

Naval Ordnance Station and University of Louisville Speed School Engineering Support Task #9, 1984-1985, $17,000, Director.

PHALANX Computer System Study, Naval Ordnance Station, Louisville, KY. ($15,000) worked as an Investigator, 1983.

Management Analysis Study of Data Processing Functions at Naval Ordnance

Station, Louisville, KY. ($50,000) worked as Principle Investigator, 1983.

Digital Equipment Corporation Special Equipment Grant Program, "GIGI 5-Pack", (Co-Director), 1982. $50,000.

12.   MS / MEng Thesis and PhD students supervised

S. R. Mugunthan, Ph.D. "PERFORMANCE ANALYSIS OF LOCALIZED INTER OPERABILITY HANDOFF ARCHITECTURE IN WIRELESS NETWORKS", July 2015 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

Deva Priya M., Ph.D. "CERTAIN INVESTIGATIONS ON THE PERFORMANCE EVALUATION OF CROSS-LAYERED FRAMEWORK DESIGN FOR WiMAX NETWORKS", March 2015 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

PRINCE EDWARD E, Ph.D. "PERFORMANCE EVALUATION OF SIP BASED CROSS LAYER DESIGN FOR HANDOFF IN WIFI-WIMAX NETWORKS", September 2014 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

Michael Ibrahim, Ph.D. "Using Wireless Communications to Enable Decentralized Analysis and Control of Smart Distribution systems", September 2014 (External Examiner, Electrical and Computer Engineering Department, Waterloo University).

Rezaul Karim Raju, MS "Scalable Hybrid Implementation of parallel Sparse Matrix Multiplication with Load Balancing and Reduced Communication", August 2014, Computer Science Department, Texas Southern University.

Jennifer S Raj, Ph.D. "Investigation on Localized Connectivity Architectures for Improved Quality of Service in Wireless Personal networks", June 2014 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

J. Amar Pratap Singh, Ph.D. "Efficient Mobility Pattern based Location Management Scheme in Wireless Networks", July 2013 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

G. Ranganathan, Ph.D. "Certain Investigation on ECG Signal Processing for Stress Analysis", July 2013 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

N. Suguna, Ph.D. "Certain Investigation on Classification of Medical Datasets Using Soft Computing Techniques", August 2012 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

Nesa Sudha, Ph.D. "Investigation on Energy Conservation in Wireless Sensor Networks", June 2012, (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

R. Vimalathithan, Ph.D., Centre for Research, Anna University of Technology, Coimbatore India. Ref: Proceedings No. 4081052147 /Ph.D. / Eval- 218/2011, April 2012.

S. Rathi, Ph.D. "A Secure and Fault Tolerant Framework for Mobile IPv6 Based Networks", April 2011 (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

J. Jaya, Ph.D. "Investigation on Segmentation of Medical Images using Meta-Heuristic Algorithms, January 2012, (External Examiner, Faculty of Information and Communication Engineering, Anna University, Chennai, India).

Nnamdie Michael Ukpong, M.S., "Effect of Network Parameters on the Quality of Video over Internet Protocol (VoIP) Services", August 2011.

Olugbenga Olumuyiwa, M.S "Real Time Performance Evaluation of Voice Over IP Call Quality Under Varying Network Conditions", May 2010.

Samar Samir Mohamed, Ph.D. "Integrated Feature Analysis for Prostate Tissue Characterization Using TRUS Images", 2006 (External Examiner, Electrical and Computer Engineering Department, Waterloo University).

Omar Essa, Faculty of Science, Ph.D." Analysis and Design of Multimedia Communication Protocols", 2005 (External Examiner, Computer Science Department, Menoufia University, Egypt).

David Hurts, M. Eng., "Wireless Local Area Network Design and Implementation for a GE Appliance production Site", 2003.

AlaaEldin Sleem, Ph.D., "Enhancing Wireless Resources Allocation and Handoff Prediction", 2003.

M. Sheikh, M.S., "Business to Business E-Commerce Case Study", 2002.

K. Alama, M.S., "Survey of SCADA Systems Architectures with Emphasis on Communication and Networking", 2001.

B. Sandman, M.S., "Distributed Computing in Heterogeneous PC networked Systems", 2000.

Alaa Eldin Aly, Ph.D., "Scheduling Parallel Applications in a Heterogeneous Networked-Clusters", 1999.

Rajkumar Madhavan, M.S., "Customer Compliance Database Using Oracle", 1999.

Ramabhadra Dokka, M.S., "Performance Tuning of Large Oracle Database Systems", 1998.

Larry Lowe, M.Eng. "NASA Launch Processing Computer Replacement", 1998.

John Cope, M.Eng. "An NT-Windows Multidrop Computer Network", 1997.

Barris Barmos, M.S., "Implementation of a Self Tuning PID Controller", 1996.

Hassan Hassan, M.S., "OS/2 based Multidrop Network for Material Handling", 1995.

Connie R. Daugherty, M.Eng. "Adaptive Maintenance of a Diagnostic Expert System, 1995

Michelle Smith, M.Eng. "Computer Information Network Cost Analysis", 1994 (Co-Director)

Leanne Blecha, M.Eng. "Optimization of the Cost of Expanding and Assigning Bandwidth", 1994 (Co-Director)

Martin Brown, M.Eng. "Serial Printer Firmware Development", 1994

Dipak Gulati, M.S., "An Optimization Model for Expanding a Telecommunication Network," 1993.

Robert Glover, M.Eng. "Adaptive PID Control Using off-line Modeling," 1991.

Rajiv Sanghvi, M.Sc., Simulation model of a spheroid array architecture, 1990 (Co-director).

Jennifer Diebold, M.Eng. Node addition to existing networks with minimal tariff cost, 1990 (Co-director).

Stacey Murphy, M.Eng. Node addition to existing networks with optimal transmission distance, 1990 (Co-director).

James Wesley Williams, M.Eng. The Design and Implementation of an Intelligent

Automobile Alarm System, 1989.

Robert Abnous, M.Eng. A Dynamic Vision Classification System using Furrier Descriptors, 1989.

Cecil Scott Moore, M.Eng. Expert System for Network Configuration and Diagnosis, 1989.

Mark L. McWhorter, M.Eng. Design and Implementation of a Computer Aided Dispatching System, 1989.

Michael Brennan, M.Eng. Image Registration and Correlation using Feature Displacement Vectors, 1988.

Robert Stetson, M. Eng., Design of a Four Track Tape Converter, 1988.

Timothy Bolden, M.Eng. Data Management and Analysis System for Remote Data Acquisition, 1988.

Timothy Elder, M.Eng. APC Interactive Expert System for Control Loop Modeling and Tuning, 1988.

Chester Elswick, M.Eng. Interface of a Database Package with a Graphics Program for Use in Global Ship Monitoring, 1988.

William Winett, M.Eng. Database Management System: A Comparison of Focus and Oracle, 1988.

Ruth Ann Taylor, M.Eng. The Design and Implementation of a Computer Vision Export System, 1987.

John Hooten, M.Eng. Programmable Control Language for Building Automation, 1987

Ali Khosravi-Kamrani, M.Eng. Design and Implementation of an M68000-based microcomputer Educational Kit, 1987.

Shinichiro Kawakami, M.Sc., Design and Implementation of a Multidrop Computer Network, 1987

Janice Earl, M.Sc., Kermit-Prime Version 4.2 Enhancement, 1987.

Arthur Scott Vetter, M. Eng., Local Area Network A Distributed Approach Using Personal Computers, 1987.

Guang Kuo, M.Sc., Analysis of the Computer Software and Hardware for the

Phalanx System, 1987.

David A. Stauble, M.Eng. A Microprocessor Based Adaptive Relay Driver, 1986.

S. Rao Vasareddy, M.Sc., Design and Implementation of a Syntax Oriented Editor for Pascal, 1986.

Tracy Sensenbrenner, M.Eng. Preprocessing Tool Kit for Registered Luminance and Range Images, 1986.

Cynthia Baumert, M.Eng. A Tool for Simulation of General Purpose Robots, 1986.

Song Huang, M. S., A Low Cost Vision System for Moving Object Manipulation, 1986.

Gregory L. Gorman, M.Eng. Vision and Tracking Using Personal Computers, 1985.

William Hahnert, M.Eng. Executive Control of a Multiprogramming Environment for an Energy Management System, 1985.

Phillip McDermott, M.Eng. Acquisition and Display of Digitized Images, 1985.

Michael Mesmer, M.Eng. Design and implementation of a Distributed PBX-Based Electronic Mailing System, 1985.

Ray Wisman, M.S., An Adaptable Speech System for MS.DOS Based Personal Computers, 1985.

Kevin Neil Tucker, M.Eng. Design of Control Software for an Industrial Robot, 1985.

Raffik Abnous, M.Eng. Data Acquisition and Control System for the Delta 1000 Building Management System, 1984.

Nathan L. Paley, M.Sc., a Computerized Transcription System for Cursive Shorthand Writing, 1984.

Coleman M. Young, M.Eng. Design of Micro code with Respect to Central Processing Unit Design, 1984.

Chung Hsi Mao, M.Sc., Optimization Package for Design Centering with Nonlinear Constraints, 1983.

John F. Linton, M.Eng. Design of the Software Components for an Industrial Robot, 1983.

Joseph P. Kolb, M.Eng. Design of an Input/Output Controller for an Industrial Robot, 1983.

Ronald L. Mosgrove, M.Eng. Design and Implementation of a Digital Image Processing Lab, 1983.

Richard E. Hornung, M.Eng. Room Air Condition Control Software, 1983.

Janet Sue Ledger, M.Eng. The Split and Merge Technique for Picture Segmentation and Data Compression, 1982.

Donald Kleine-Kracht, M.Eng. A Large Scale Computer Operating System Evaluation Using GPSS, 1982.

Samuel Kirk, M.Sc., Remote Diagnostics for Inter-Satellite Switch Link, 1982.

R. Bruce Mattingly, M.Eng. Evaluation and Comparison of Digital Image Restoration Techniques, 1982.

Richard A. Wolfe, M.Eng. The Design and Implementation of a New Algorithm for Picture Segmentation by Paging, 1982.

Tim McConnell, M.Eng. A Microcomputer Based Signature Verification System, 1982.

13.   **Memberships in University and College Committees**

University of Louisville, 1979 to 2001 – Served on University, College, Department, and IT committees.

United Arab Emirates University, 2001 to 2003 – Served on several University, College, Department, and Ministry committees.

Abu Dhabi University, 2004 to 2005 – Served on several University, College, Department, and IT committees.

Texas Southern University, 2005 to 2006 – Served on several University, College, and Department committees.

14.   **List of Courses taught for the past 5 years**

CS 116 Introductions to Computer Science I (TSU)
CS 243 Computer Organizations (TSU)
CSC 302 / CS 415 Computer Ethics and Society (UAEU&ADU/TSU)

CSC 303 Digital Logic Design (ADU)
CS 448 Computer Networking (TSU)
CS 497 Computer Control and Real Time Programming (TSU)
CS 531 Computer architecture (TSU)
CS 545 Advanced Computer Networks (TSU)
CS 696 Special Topics in Computer Science (TSU)
CS 697 Independent Master Projects (TSU)

15.   Accreditation Related Activities

Computer Science Accreditation Commission Member – Served on several CS accreditation visits as a team member and a team chair from 1985 to 1998.

16.   Major Consulting Activities

PLC Automation, Louisville, KY
June 2003 – March 2004
<u>Final Effluent Pumping Station Conversion</u>: The purpose of this project is to convert existing remote I/O rack in the De-chlorination Area into a networked PLC 5 System. This conversion was a necessary change in order to eliminate repeated PLC 5 (Old FEPS PLC) failures during the remote I/O rack communication. The conversion process included reconfiguration of the current Final Effluent Pump Station ladder logic and the conversion of the De-chlorination remote I/O rack (Rack 2) portion to its own PLC 5 communicating on an existing Data Highway Plus Network, reconfigurationof the Panelmate screens in the De-chlorination Building to address and communicate with the new PLC 5 system (DECH PLC), implementation of the necessary communication messages over the existing Data Highway Plus Network in order to provide updated and needed information for either of the two PLC's or the two Panelmates, overall system integration/debug, and final documentation.

Cummins Engine, Columbus, IN
Summer 2000 (PLC Automation)
<u>GenSet PLC Training for the Trainers</u>: Designed and implemented customized training for the Generator Set Cummins engine monitoring and control system. Used interactive multimedia to implement the entire training including the detailed hands on activities. Also designed and implemented three PLC training units using the PL7 series processor. The training course and manual is used by Cummins for the training and support of their customers worldwide.

Louisville and Jefferson County MSD
May - August 1999 (PLC Automation)
Developed and implemented a PLC control and user interface for a sludge

pumping station at the MSD Morris Forman Plant. Provided the pumping station control and maintenance documentation.

May 1997 (PLC Automation)
Conducted a two weak training course for MSD
Personnel. The course, Introduction to Relay Logic and
Allen Bradley family 5 PLC controls. Examples used in the course were developed from the MSD Morris Forman Plant pumping station control and maintenance documentation.

Camp Dresser & McKee, Inc. /MSD Louisville, KY
Final Effluent Pumping System.
March 1993 - December 1995 (with PLC Automation)
Supervised the PLC and Instrumentation ladder and user interface software. The system controls the Morris Forman final effluent pumping station in Louisville, KY. Two training sessions (5-days and 3-days) were given on the equipment at the plant in 1995.

Camp Dresser & McKee, Inc. / MSD Louisville, KY
Bioroughing Towers Facility.
January 1993 - July 1995 (with PLC Automation)
Coordinated and supervised the PLC and user interface software development and checkouts. The system controls a secondary treatment facility for wastewater in Louisville, KY. Two phases of training were conducted at the Morris Forman Wastewater Treatment Plant, January 94 and March 95.

Louisville Gas and Electric Company
July 1993 (with PLC Automation)
Conducted a one weak training course for LG&E personnel. The course, Introduction to Relay Logic and Basic Control Diagrams, was given at the LG&E Power Plant. Examples used in the course were developed from the Power Plant control and maintenance documentation.

GRW Engineers, Inc. / MSD Louisville, KY.
Hite Creek Wastewater Treatment Plant.
April 1993 - December 1993 (with PLC Automation)
Worked on the Hite Creek Wastewater Treatment Plant Electric and Instrumentation Rewiring project. Provided an inventory of the site plan, the new site plan, circuit schedules, and reviewed all drawings and specifications.

Multi-Metal, Vermont America Company, Louisville, KY.
1987 - 1993
Designed and implemented a Multi-drop computer network for material handling, inventory, and quality control. The network spanned a three floors metal powder mixing plant. A database was designed to cover all production needs and specifications. The implemented configuration utilized automatic Bar code scanning

for identification. It was upgraded several times. The system was maintained and supported by PLC Automation. Several training sessions were given to Engineers and factory operators.

Integrated Irrigation Water Control (Egypt)
Subcontractor to COMCO Manufacturing, Canada.
August 1991 - May 1993 (with PLC Automation)

Configured the hardware and implemented the ladder logic for Allen-Bradley PLC 5/15 for an irrigation control system. Six PLC's in six different sites are connected to a central computer through 1785KE communication modules, Modems, and leased lines. The system monitors and controls the upstream and downstream water levels at the six sites and several secondary canals. Developed and implemented logic diagrams, Control View database, and interactive user interface.