LAWRENCE E. HOLLOWAY
TVA Professor of Electrical and Computer Engineering, and
Chair, Department of Electrical and Computer Engineering
Director, Power and Energy Institute Kentucky (PEIK)
University of Kentucky
Lexington, Kentucky 40506
(holloway@engr.uky.edu)

EDUCATION

Southern Methodist University, Dallas: **B.S.** in Electrical Engineering, magna cum laude, May 1987. Minors in Math and Business.
Carnegie Mellon University, Pittsburgh: **M.S.** in Electrical and Computer Engineering, Oct. 1988.
Carnegie Mellon University, Pittsburgh: **Ph.D.** in Electrical and Computer Engineering: July 1991.

EMPLOYMENT (abbreviated)

University of Kentucky, Director, Power and Energy Institute Kentucky (PEIK), April 2010-present
University of Kentucky, Chair, Dept. of Electrical and Computer Engineering, July 2007-present
University of Kentucky, Director, U.K. Center for Manufacturing, a center for manufacturing research, teaching, and industrial extension. Sept.2002 to August 2007. (Deputy Director 1999 to 2002)
University of Kentucky, Professor (formerly Assoc. Prof and Assist. Prof.). Aug. 1991 to present.
Joint faculty member in Center for Manufacturing and Department of Electrical and Computer Engineering.
Rockwell Science Center, Thousand Oaks, California. June 93 to August 93, July 95
Developed methods for automated fault monitoring in automated mfg. systems.
National Instruments, Austin, Texas. June 87 to August 87.
Developed application software for Macintosh II circuit boards.
LTV Aerospace and Defense, Dallas, Texas. My 1983-June 1986. Co-op student.
Assignments included Avionics support, development of hardware and software.

Other Related Experience:

Ecole Centrale de Lille, Lille, France. Visiting Faculty, June 2004 and July 2005.
Rockwell Science Center, Thousand Oaks, California. June 93 to August 93, July 95
National Instruments, Austin, Texas. June 87 to August 87.

RESEARCH AREAS

Systems, including: embedded systems, discrete event control systems; fault monitoring, detection, and diagnosis; manufacturing systems including production control and manufacturing automation, power systems.

PRINCIPLE RECENT PUBLICATIONS

"Detection of unmodeled anomalous behaviors via localized controllers for condition systems"; Ashley, J, and Holloway, L.E.; *International Journal of Production*

Research; (A Special Issue on *Computation Engineering in Systems Applications).* Volume 46; Issue 19; pages 5289-5312; 2008.

"Design for Sustainability (DFS): New Challenges in Developing and Implementing a Curriculum for Next Generation Design and Manufacturing Engineers," Jawahir, I.S.; Rouch, K.E.; Dillon, O.W.; Holloway, L.; Hall, A. *International Journal of Engineering Education*, Volume 23, Number 6, November 2007, pp. 1053-1064(12)

"Applying Automated Control Synthesis Methods to Condition Systems Requiring State Observers", L.E. Holloway, J. Ashley, Y. Gong. *Control Engineering Practice*, volume 14:10 (2006), pp 1169-1181.

"Determining the right-hand vectors of an irredundant linear inequality system," Ramprasad Potluri and L. E. Holloway. *Operations Research Letters (Elsevier publishers)* vol.24 (2006), pp 373-381.

"An equivalent CTL formulation for condition sequences"; Jeffrey Ashley and L. E. Holloway; *Journal of Discrete Event Dynamic Systems*; Springer Science Publishers; Volume 15, Issue 4, Dec 2005, Pages 333 – 348.

Achieving Resilience for a Class of Serial Production Networks", Yao Hu, Jingshan Li, and L.E. Holloway, 2010 American Control Conference , Baltimore, Maryland.

"Stability Determination in a Class of Manufacturing Systems with Replenishment Signals", John Thomas Henninger and L. E. Holloway, 2010 American Control Conference , Baltimore, Maryland.

"A Modeling and Aggregation Approach for Analyzing Resilience of Manufacturing Enterprises", Yao Hu, Jingshan Li, and L.E. Holloway, 2009 *IEEE International Conference on Systems, Man, and Cybernetics*, San Antonio, Texas, Oct. 2009.

"Towards Modeling of Resilience Dynamics in Manufacturing Enterprises: Literature Review and Problem Formulation", Yao Hu, Jingshan Li, L. E. Holloway Proceedings of 2008 IEEE Conference on Automation Science and Engineering (CASE 2008), pp. 279-284. August, 23-26, 2008, Washington DC.

"Applications of Lean Concepts to the Teaching of Lean Manufacturing", A. Hall and L. Holloway. Proceedings of 2008 ASEE Annual Conference and Exposition, Pittsburgh, PA, June 2008

"Qualitative Diagnosis of Condition Systems," Jeffrey Ashley and L. E. Holloway. *Discrete Event Dynamic Systems: Theory and Applications, 14:4*, Kluwer Academic Publishers. October 2004 pp395-412.

"Computing Bounds for Forbidden State Reachability Functions for Controlled Petri Nets," L.E. Holloway, Ajit S. Khare, and Yu Gong. IEEE Transactions on Systems, Man, and Cybernetics Part A, 34(2), March 2004. pp219-228.

SYNERGISTIC ACTIVITIES: PROFESSIONAL MEMBERSHIP AND SERVICES

Recent Professional Activities

Associate Editor, IEEE Transactions on Automatic Control, 2002 to 2005.

Organizing Committee for 2001 American Control Conference, (Arlington, Virginia), 2007 American Control Conference (New York), 2009 American Control Conference (St. Louis)

Program Committee, 2004, 2006, 2008, 2010 International Workshop on Discrete Event Systems (WODES),

Program Committee, 2009/2007/2006/2005/2004 American Control Conference.