

SUMMARY VITA – Cecelia M. Wigal, Ph. D., P.E.

Professor and Assistant Dean

Years on Faculty: 10 (original appointment 08/01/99)

Degrees:

Ohio Northern University	Electrical Engineering	B.S., 1985
Illinois Institute of Technology	Electrical Engineering	M.S., 1991
Northwestern University	Industrial Engr. & Management Sciences	Ph.D., 1998

Other Related Experience:

Visiting Assistant Professor (Spring 1999)—Northern Illinois University, Department of Industrial Engineering, College of Engineering

Adjunct Professor (Fall 1998), Teaching Assistant (Spring 1998), Instructor (Fall 1996)—Northwestern University, The Department of Industrial Engineering and Management Sciences (Fall 1998)

Project and Senior Project Engineer (1985-1993, summer 1994)—Hamilton-Sundstrand Corporation, Aerospace Electrical Power Systems Division

States in which registered: Ohio

Consulting and Patents:

Erlanger Hospital (Spring 2008 – present)—Applying systems analysis and initiatives to understand and improve emergency room procedures to increase ER productivity.

HERO FabriDuct, Inc (Fall 2007 – Spring 2009)—Supporting undergraduate research for data collection and analysis for specialized products in the chicken production industry.

Yale Commercial Locks and Hardware (fall 2007 – Spring 2009)—Supporting undergraduate research for solids modeling and design testing for specialized products.

Orange Grove Center (Fall 2007)—Time studies and system design for new Romex stripping and recycling process for use by workers with special needs.

Precision Machining Services Inc. and the UTC Center for Industrial Services (Spring 2001)—Counseled quality lead on SPC software, uses, and preparation.

Storm Copper Components, Co and the UTC Center for Industrial Services (Winter 2000-2001)—Created high level management plan for the facility to meet ISO 9000 standards by fall of 2001.

Principal Publications of Last Five Years:

Wigal, Cecelia M., “Introducing Freshmen Engineering Students to Function Modeling to Enhance Design,” Proceedings of the 2009 Southeastern Section of the American Society for Engineering Education Annual Conference & Meeting. Apr 5 - 7, 2009.

Wigal, Cecelia M., Molly Littleton, and Ed McMahon, “Measuring the Benefit of Service Oriented Student Design Projects,” Proceedings of the Frontiers in Education Conference, Oct. 22 – 25, 2008.

Wigal, Cecelia M., Ignatius Fomunung, Ed Foster, and Ron Goulet “The Impact on Students of Freshman Design Projects Supporting Advanced Courses” Proceedings of the 2007 American Society for Engineering Education Annual Conference & Exposition. Jun 24 - 27, 2007.

Wigal, Cecelia M and Molly Littleton, “The Impact of Special Needs Projects on Student Learning” Proceedings of the 2007 American Society for Engineering Education Annual Conference & Exposition. Jun 24 - 27, 2007.

Wigal, Cecelia M., “The Use of Engineering Design Projects for Student Understanding of Engineering’s Societal Impact and Global Responsibility,” Proceedings of the 2007 Southeastern Section of the American Society for Engineering Education Annual Conference & Meeting. Apr 1 - 3, 2007.

Wigal, Cecelia M., “Project-Based Learning in Engineering Design and Graphical Communication,” Proceedings of the 2006 Southeastern Section of the American Society for Engineering Education Annual Conference & Meeting. Apr 2 - 4, 2006.

Alp, Neslihan, Cecelia Wigal, Ed McMahon, Norman Desbiens, Roger Jones, Mukta Pande, Asma Khan, Sonya Reid, “Residents Actively Identifying Systems Improvements for Patient Safety,” Proceedings of the IIE Society of Health Systems Conference, Feb. 10 – 12, 2006.

Wigal, Cecelia M., “Managing and Aligning Assessment Knowledge,” Proceedings of the Frontiers in Education Conference, Oct. 19 – 22, 2005.

Wigal, Cecelia M., “Introducing Systems Modeling at the Freshman Level” Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition. Jun 12 - 15, 2005.

Wigal, Cecelia M., “Systems and Creative Thinking and Student Experience of Design,” Proceedings of the Frontiers in Education Conference, Oct. 20 – 23, 2004.

Tipton, Darrell and Cecelia Wigal., “Development of Systems and Process Models—Private Landfills Application,” Proceedings of the 2004 Production and Operations Management Society (POMS) World Conference, Apr 30 – May 3, 2004.

Wigal, Cecelia M., “Instruction for Communicating in the Information Age,” Proceedings of the 2004 Southeastern Section of the American Society for Engineering Education Annual Conference & Meeting. Apr 4 - 6, 2004.

Scientific and Professional Society Memberships:

ASEE Southeastern Section (Past President, President, VP Programs); Secretary, Industrial Engineering Division—ASEE Southeastern Section; Member, American Society for Engineering Education (ASEE); Member, Institute for Operations Research and the Management Sciences (INFORMS); Member, Production and Operations Management Society (POMS); Member, American Association of University Women (AAUW); Member, Society of Women Engineers (SWE), Sigma Xi, Phi Kappa Phi, Tau Beta Pi

Honors and Awards:

ASEE Southeast Section Conference Outstanding Paper (2007)

ASEE Southeast Section Tony Tillman Service Award (April 2006)

Grants and Research Award (University of Tennessee at Chattanooga 2007, 2006, 2004)

Exceptional Merit Award (University of Tennessee at Chattanooga 2008, 2007, 2006, 2005, 2004, 2003)

Engineering Research Award (UTC College of Engineering and Computer Science, 2002)

Walter P. Murphy Fellowship (Northwestern University, 1993 - 1994)

Certificate of Outstanding Performance from the Boeing Commercial Airplane Group - Renton Electrical Systems (1993)

Institutional Service in the Last Five Years (committee assignments, etc.):

UTC Sigma Xi Chapter President (2008 – present), UTC General Education Committee Chair (04 – 06), UTC SWE Student Chapter Faculty Advisor (04 - present)

Member (University) – UTC Efficiency and Effectiveness Committee, Grants and Research Advisory Board, Honors Program Advisory Board, The Washington Center Scholarship Committee, Athletics Board, Library Program Statement Committee (07 – present), UC Foundation Strategic Plan Committee (Fall 07), Faculty Evaluation Appeal Committee (07 – 08), Women’s Center Search Committee (06-07), University Standards Committee (06-07)

Professional Service in the Last Five Years:

ASEE- SE Officers (Past Pres:08-09, Pres: 07-08, Vice Pres Programs: 06-08, Vice Chair Programs: 05-06; Technical Chair Conference: 04-05)

Presented to the Chattanooga Chapter of the Association of Women Business Owners on Status of Females in Engineering

Society of Women Engineers (SWE) National Conference Panelist (2007)

Engineers Without Borders: Chattanooga Chapter, UTC Advisor

Officer of Chattanooga Chapter of the SWE (2007-2008)

Advisory Board: TenneSee

Reviewer for papers for the Southeastern Section of the ASEE Annual Meeting (04 - 09), the National Frontiers in Education Conference (08, 09), the National ASEE Conference

Professional Development Activities in the Last Five Years:

Conference Attendance and Presentations (ASEE, ASEE-SE, Frontiers in Education, EPICS, Society of Women Engineers, Production and Operations Management)

ABET Training May 2008

Project Lead the Way (PLTW) STI Training (2009, 2008, 2007, 2006),

PLTW Training Summer 06, 05

UTC Lupton Globalization Retreat and Seminars October 2003 – Spring 2004