

# KEN R PENCE

## Curriculum Vitae

June 2009

Associate Professor of the Practice of  
Engineering Management  
Engineering and Computer Science Dept

Vanderbilt University VU Station B #351518  
Nashville, TN 37235 Tel.: (615) 322-4261  
Fax: (615) 322-7062

Ken.Pence@vanderbilt.edu  
<http://www.prototus.org/about-us/ken-pence>

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## EDUCATION

Vanderbilt University, Nashville, Tennessee

- Ph.D., Interdisciplinary Studies: Management of Technology, 2005.  
Dissertation title: *Arrested Decisions: The Effects of Information Latency on High-Risk Decision-Making*  
(Dissertation Supervisor: David M. Dilts)
- M.S., Management of Technology, 2003.  
Thesis: *Strategic Decision Bias by Role in Failed Technology Projects*
- B.S., Engineering Science, 1977

FBI National Academy (125th Session), US Department of Justice, Quantico, Virginia

This is an advanced leadership/management program for select individuals from across the world – a staff/command college for law enforcement where those selected would complete undergraduate or graduate work through the University of Virginia, 1981.

## APPOINTMENTS

2009-2011 Associate Professor of the Practice of Engineering Management - EECS, Vanderbilt

2006-2009 Assistant Professor of the Practice of Engineering Management - EECS, Vanderbilt

2005-2006 Assistant Professor, (non tenure track) CEE – Vanderbilt University

2004-2005 Research Instructor, CEE – Vanderbilt University

2003-2004 TA Instructor MT234 Program and Project Management-Vanderbilt University

2001-2002 TA Instructor ES130 Intro to Computing -Vanderbilt University

## PROFESSIONAL EXPERIENCE

2001 – 2004 Evidence Division Metropolitan Nashville Police Department

1998 Captain - Planning and Research Division (Grants Manager, Accreditation, Case Preparation, Recruitment, Crime Analysis, GIS Mapping)

1996 to 1998 - Planning and Research Division

1975 to 1991 - Metro Police SWAT Team (Entry Team Leader '88 - '91)

1987 Lieutenant

1982 Sergeant - (Confrontation Management Unit)

1974 to 1996 - Metro Police Academy Instructor  
1973 -74 Patrol – Metropolitan Nashville Police Department

## **HONORS AND AWARDS**

Best paper Finalist, Journal of Operations Management, 2007  
Efficiency Award for Grants (Obtained grant awards totaling \$28,000,000) 1998  
Exemplary Service Award for Citizen Police Academy Instruction/Assistance 1996  
Distinguished Service Award as Entry Team Leader during SWAT Hostage rescue 1991  
Exemplary Service Award - for Semi-Auto Transition Program development 1989  
Exemplary Service Award - (Developed program) Mechanics of Arrest 1976

## **PROFESSIONAL AFFILIATIONS**

- Federal Bureau of Investigation National Academy Associates (FBI NA) 1982 to present
- Institute of Electrical and Electronics Engineers (IEEE) 2003 to present
- Sigma Xi (Scientific Research Society) *President* of VU Chapter 2009
- Academy of Management (AOM) 2003 to present
- **InfraGard** (Federal Bureau of Investigation Infrastructure protection association)
- Tennessee Homeland Security Consortium 2005 - present

## **REFEREED JOURNAL PUBLICATIONS**

Dilts, D & **Pence K** “Impact of role in the decision to fail: An exploratory study of terminated projects”, Journal of Operations Management, 24, pp 378-396, 2006 (Best paper finalist). My contribution is my master’s thesis and primary statistical analysis.

## **CONFERENCE PROCEEDING PAPERS**

Howard, L., Johnson, J., Pap, G., **Pence, K.**, Juracz, L., “Affordances and Form: Applying Lessons from Informal Learning to Formal Learning on the Web”, Proceedings of the International Conference on Engineering Education. Pecs-Budapest, Hungary, July, 2008. We examine web-enabled courses from ACT-Online grant data.

Imсанд, E., Howard, L., **Pence, K.**, and Dasgupta, D., “Online Information Security Education through Anchored Instruction”, Proceedings of the 12th Annual Colloquium for Information Systems Security Education, Dallas, TX, USA, June, 2008. We examine scenario based instruction from our work on ACT-Online project.

**Ken R Pence** and David M Dilts, “The Tale of Two Projects: Both Successful, One a Failure”, Decision Sciences Institute Annual Meeting, Washington, D.C. November, 2003. I examine two projects that met goals but one was terminated. Currently preparing resubmission to Academy of Management review journal.

David Dilts and **Ken R Pence**, “The Decision to Fail: Perspective Bias and Uncertainty in terminated technology deployment projects” Academy of Management, Seattle, Washington, August 4<sup>th</sup>, 2003. Work from my Master’s thesis published in 2006 – award winning journal article – see above.

## **CONFERENCE PROCEEDINGS WITHOUT PAPER**

Schnelle, K.B. and **Pence, K.R.**, Abstract "Smoke and Plumes," presentation at Air & Waste Management Assoc. 100th Annual Conference & Exhibition, held in Pittsburgh, PA, 2007

**Ken R Pence**, "Governmental Response to Hurricane Katrina," Academy of Management Annual Conference (AOM), Atlanta, GA, August 12, 2006

**Ken R Pence** "Emergency Response Nashville," Solutions To Security Concerns About The Radioactive Legacy Of The Cold War That Remains In Urban Environments Workshop, International Institute for Applied System Analysis at Vanderbilt University, Nashville, TN, November 15, 2004

## **WORKING PAPERS**

**Pence K**, Dilts DM, and March S, "The Effects of Information Latency on Performance in High-Risk Decision-Making," to be resubmitted to *MIS Quarterly*

**Pence, Ken** and Dilts, DM "The Tale of Two Projects: Both Successful, One a Failure," to be resubmitted to *IEEE Trans. on Engineering Management*.

## **INVITED TALKS**

**Pence, K.**, "ACT-Online Cyber-Security Training", State and Community Cyber Education and Training (SACCET) October 2008, San Antonio, TX

**Ken R Pence**, "Police Palmtop Project," International Association of Chiefs of Police (IACP) Law Enforcement Information Managers (LEIM), Denver, CO, May 7, 2001

**Ken R Pence**, "The Internet as a Crime Fighting Tool," Justice in the New Millennium, Bureau of Justice Assistance, Miami Beach, FL, June 6<sup>th</sup>, 2000

**Ken R Pence** and Donna M Pence, "Model Self Protection Program," U.S. Attorney General's National Symposium on Sexual Assault, FBI Academy, Quantico, VA, January 23-26<sup>th</sup>, 1986

## **TRADE PUBLICATIONS AND VIDEO TRAINING PROGRAMS**

**Ken R Pence**, "Tac Tips," Law Enforcement Satellite Network (LESAT), University of Tennessee, Knoxville, TN, 1996

**Ken R Pence** and Melvin S Brown, "Officer Survival/Corrections," Law Enforcement Satellite Network (LESAT), University of Tennessee, Knoxville, TN, 1994

**Ken R Pence** and Melvin S Brown, "Officer Survival: Drugs & Violence," Law Enforcement Satellite Network (LESAT), University of Tennessee, Knoxville, TN, 1993

**Ken R Pence**, "Drawn Out," Police Magazine, Vol. 16, No. 2, Feb 1992.

**Ken R Pence** and Melvin S Brown, "Generic Disarming," Police Magazine, Vol. 16, No 5, May 1992.

**Ken R Pence**, "Avoiding the First Shot," Police Magazine, Vol. 17, No. 3, March 1993.

**Ken R Pence**, "Apprehending the Violent Offender," Police Magazine, Vol. 16, No. 6, June 1992.

**Ken R Pence**, "Training Can Be a Riot," Police Marksman, December 1992

## **PROFESSIONAL DEVELOPMENT**

Adjunct Faculty Austin Peay State University, Criminal Justice, 1990 – 1991 (SWAT)  
Appointed Visiting Faculty - Tennessee Law Enforcement Training Academy, 1986  
FAA Instrument-rated fixed-wing pilot's license, 1986  
National Crime Information Center (NCIC) query certification, 1982 to 2004  
FBI Firearms rating – Master, Quantico, VA, 1981  
Hazardous Material Certification – Colorado Committee on Hazardous Materials Safety, 1980  
FBI Special Tactical Firearms (SWAT), FBI Academy, Quantico, VA, January 1977  
Certified Police Instructor (all topics) State of Tennessee, 1976  
Political Violence and Terrorism Course, California Specialized Training Institute San Luis Obispo – terrorist tactics and strategies, 1976  
Certified Firearms Instructor, NRA, 1976  
FBI Instructor Development, Tennessee Law Enforcement Training Academy, 1975  
Emergency Medical Certification – TN Department of Public Health, 1973  
Certified Sworn Law Enforcement Officer, State of Tennessee, 1973

## **SPONSORED RESEARCH ACTIVITIES**

1. Collaborative Research: Adaptive Cyber-security Training Online (ACT-Online)  
*Sponsoring Agency:* Department of Homeland Security/FEMA
  2. Pending decision: Preparatory Evaluation and Remediation of Participant Skills (PERPS)  
*Sponsoring Agency:* Department of Homeland Security/FEMA
  3. Pending decision: Innovation and Discovery in Engineering and Science (IDEAS) Program  
*Sponsoring Agency:* Vanderbilt University
  4. Pending decision: IGERT: Multi-Disciplinary Program in Systems Science and Engineering  
*Sponsoring Agency:* NSF  
*Amount:* \$TBD  
*Starting – Ending Date:* 9/1/09 – 8/31/2018  
*PI:* Gautam Biswas
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1. Past Award: Emergency Transportation Operations Training  
*Sponsoring Agency:* Tennessee Department of Transportation (TDOT)  
*Starting – Ending Date:* 9/1/07 – 6/30/08  
*PIs:* Mal Baird
  2. Past Award: Acoustic Locator for Gunshot  
*Sponsoring Agency:* DARPA/ISIS CENTER #4-22-420-4923  
*Starting – Ending Date:* 2007  
*PIs and Co-PIs:* Akos Ledeczi and Ted Bapty

## **GRADUATE STUDENT SUPERVISION**

PhD committee member for three graduate students who successfully defended:

- 1) Patrick Hester, "Facility Protection Optimization Under Uncertainty," 2007
- 2) Steven Cheng, "The Impact Of Delay: Assessing The Early Indicators Of Development Time And Accrual Milestones On Oncology Clinical Trial Success," November 2008.
- 3) Steven Van Dyk, "Systems Engineering Decision Process: Options are Available," March 2009).

I currently serve as co-chair on the PhD committee for **Austin Cheney**, and on the committee for three additional CE graduate students in areas of systems engineering evolution, transportation modeling and risk reduction modeling:

**JEFF PIERCE, DOUG MCINVALLE, AND SAMRAT CHATTERJEE**

## **TEACHING ACTIVITIES - COURSES TAUGHT 2001-2009**

- VANDERBILT VISIONS ORIENTATION CLASSES FOR FRESHMEN 2007
- ES 130 INTRODUCTION TO COMPUTING FOR FRESHMEN 2001-2002
- CE 299.1 DISASTER RESPONSE AND RECOVERY
- CHE, CE, ENGM 216 ENGINEERING ECONOMICS
- ENGM 274 PROGRAM AND PROJECT MANAGEMENT (PREVIOUSLY MT 234)
- ENGM 244 APPLIED BEHAVIORAL SCIENCE
- ME 209A AND C UNDERGRADUATE RESEARCH (BIODIESEL RESEARCH, HAZARDOUS M<sup>TL</sup> DISPOSAL)
- ES 248A(03) UNDERGRADUATE RESEARCH
- CHE 246 CHEMICAL ENGINEERING PROJECT INDEPENDENT STUDY

## **OUTSIDE ACTIVITIES**

I represent Vanderbilt University Engineering at the Tennessee Homeland Security Consortium meetings and regularly give talks across campus and in the community. I regularly partner through Oak Ridge Associated Universities (ORAU) on homeland security projects and have held a DoD Secret clearance held by Sparta, Inc in Huntsville, AL. I currently give cyber-security talks around the nation through my current DHS/FEMA grant.

## **SYNERGISTIC ACTIVITIES**

Advisor for Department of Homeland Security through Oak Ridge Associated Universities (ORAU) to develop threat level funding formula, Alexandria, VA 2007  
National Institute of Justice (NIJ) grant reviewer Washington, D.C. (GIS – Spatial Analysis 2003, biological and chemical sensors/scanners, less-lethal weapons 1999-2000)  
Advisory Committee - National Law Enforcement/Corrections Technology Center 1998 – 2002  
Expert witness in State and Federal Courts (Use of Force and law enforcement procedures)  
Sharpe v City of Lewisburg, Warren v Sloan, Dickerson v Metropolitan Nashville, Sanford v Metropolitan Nashville

Developed Dynamic Control Simulation Program and taught SWAT Tactics to police in England, Northern Ireland & Germany 1986 - 1993  
Incident Command training/In-service certification 1991 to 2004  
FAA Instrument-rated fixed-wing pilot's license 1986  
5th degree Blackbelt in Tae Kwon Do (training 1967 to present)

## **PROGRAM AND PROJECT MANAGEMENT**

Project Director for Assault Risk - Intervention Assessment research/test through School Based Partnership Grant (1999) National Institute of Justice (NIJ) 2000  
Assisted in development of Voice Response Translator–Integrated Wave Technology 1998- 2008 (8,000 sold to US Army 2008)  
Project Director for Millennium Linking Project (Edward Byrne grant) 1996 – 2000  
Project Director for 96, 97, 98, 99, 2000 Law Enforcement Block Grants  
Project Director of Police Palmtop Project 1997 - 2000  
Project Director for COPS More 96 - 1996  
Project Director of Community Access grant 1996 (still active 2009)  
Project Director School Violence reduction game, “Danger High” 1995-1996