MARY C. COURT, Associate Professor
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A. PROFESSIONAL PREPARATION

Rensselaer Polytechnic Inst., Troy, NY, Industrial and Mgmt Engineering,B.S.,1984
Rensselaer Polytechnic Inst., Hartford, CT, Operations Management,M.S., 1989
Rensselaer Polytechnic Inst., Troy, NY, Decision Sci. and Engineering Sys., Ph.D. 1993

B. ACADEMIC APPOINTMENTS

7/00-Present	Associate Professor	School of Industrial Eng., Univ. of Oklahoma.
8/93-6/00	Assistant Professor	School of Industrial Eng., Univ. of Oklahoma.

C. PROFESSIONAL EXPERIENCE

5/87-9/89	Manf/Sys Engineer	Gen. Dynamics/Electric Boat Div., Groton, CT.
7/86-5/87	Industrial Engineer	Gen. Dynamics/Convair Div., San Diego, CA.
1/85-7/86	Industrial Engineer	Sony Corp. of America; Rancho Benardo, CA.

D. SELECTED PUBLICATIONS:

1. Court, M. and J. Haddock. A simulation output analysis approach based on the alternating regenerative method. To appear in *IIE Transactions*. 2004.
2. Court, M., 1999. Commercial aircraft-cabin egress: the current state of simulation model development and the need for future research. *Simulation **73**(4),* 218-231.
3. Court, M. and J. Dechert, 1999. A conceptual framework for performing reverse simulation. *International Journal of Advanced Manufacturing Systems **2**(1),* 1-11.
4. Court, M. and P. Narashimha, 1998. Correlation: a methodology for facilitating simulation output analysis into a real-time decision analysis tool. *International Journal of Advanced Manufacturing Systems **1**(2),* 205-220.
5. Court, M. and J. Marcus, 1997. Use of object oriented programming to simulate human behavior in emergency evacuation of an aircraft's passenger cabin. *Proceedings of the 1997 International AGARD Conference on Aircraft Fire and Safety*, 341-346.

<u>Other Significant Publications</u>

6. Court, M., 2004. Using Excel macros for teaching simulation input and output analysis," to appear in *International Journal of Engineering Education*, 2004.
7. Court, M., L. Tung, R. L. Shehab, T. Reed Rhoads and T. Ashford, 2003. An adaptable learning environment centered on student learning and knowledge resolution. *World Transactions on Engineering and Technology Education, **2**(1),* 41-44.
8. D. Shirley, Pierson, C., Trytten, D., Rhoads, T. and M. Court, 2002. A laptop college of engineering at the University Of Oklahoma, with. *Proceedings of 32nd ASEE/IEEE Frontiers in Education*. 1-6.
9. Court, M., 2001. A case study on the impact of web-based technology in a simulation analysis course. Simulation 76(4), 207-213.
10. S. Raman, M. Court, S. Pulat, and F. H. Grant, 1999. Modular software for integrated manufacturing education, with. *International Journal of Advanced Manufacturing Systems, **2**(1),* 59-72.

E. SELECTED SYNERGYSTIC ACTIVITIES

1. Disseminating Research. The majority of my funded research has been through various federal government agencies such as the United States Air Force, the Department of Transportation and the Federal Aviation Administration. In general, the research focuses on new model development, simulation, animation and statistical analysis issues in simulation. This has allowed me several opportunities to disseminate research to non-scientific audiences e.g., economic impact analysis for high speed rail was released via a brochure and a CD-ROM that is used by policy makers, administrators and senators. Most pertinent is the funding received by the Federal Aviation Administration for studying and modeling the passenger movement and behavior for identifying survivability during aircraft-cabin egress [D.2 and D.5]

2. Simulation Output Analysis. An underlying goal of my research is to incorporate models and analysis tools that support real-time decision analysis and to reduce or assist ad-hoc decisions in simulation output analysis [D.1, D.3 and D.4].

3. Research in Education. Over 7 grants in electronic learning have afforded me the opportunity to conduct research in engineering education. Most of the grants have focused on developing electronic tools to support learning and have led to several journal publications [D.6-D.10]. One grant disseminated a framework for an adaptive learning environment and a college-wide database for statistics topics that can be used to structure course content, based instructor supplied learning objectives.

4. Other research awards:

The Experimental Frame: Developing a Comprehensive Manufacturing Analysis Tool, OCIDM,Co-PI's: Foote (OU)/Mize (OSU). The research developed object-oriented models where their development treated the *models as tangible assets,* rather than as disposable materials.

Marine Safety Systems Inc. (MSSI) of Houston, TX. A simulation model of the MSSI *passive oil-transfer system* to the United States Coast Guard proved their system could be retrofitted into any tanker and thus, eliminated the structural and fire risks associated with double-hull construction.

Creating a Foundation for Web-based Statistics Education. Co-PI's: Rhoads and Shehab. The grants led to a college-wide database of web-tutorials on statistics content and research for developing an adaptable electronic learning environment based on student learning styles.

Sooner Engineering Education Center. Co-PI's: Fink, Fagan, Grammoll, Knox, Kolar, Lobbin, Murphy, Narin, Rhoads, Santos, Sabatini, Shirley, and Strevett. The funding is in support of the College of Engineering's efforts to provide state-of-the art teaching materials and facilities for the students and faculty.