***LAWRENCE E. WHITMAN**, PE, CMfgE*
(316) 978-5907(316) 978-3742 (fax)
Larry.whitman@wichita.edu
Industrial and
Manufacturing Engineering Department
Wichita State University
Wichita, KS 67260

Professional Preparation

- Oklahoma State University. Mechanical Design Engineering Technology. B.S. 5/84
- Oklahoma State University. Industrial Engineering and Management. M.S. 7/86
- The University of Texas at Arlington. Industrial and Manufacturing Systems Engineering. Ph.D. 8/99

Appointments

1/99 - Present **Assistant Professor** - Industrial and Manufacturing Engineering Department
Wichita State University

Funded Proposals

- PI for the "Methodology To Enable Pervasive Enterprise Models." 2001. This project developed a methodology to enable reuse of enterprise models, defined a taxonomy of enterprise models, and proposed an ontology of enterprise models. Funded by EpSCoR FIRST Award.
- PI for the "Mitigation Of Supplier Risk To Optimize The Supply Chain Project." 2000. This project developed a common model of an aerospace supply chain and developed a methodology for co-opetition of multiple supply chains. Funded by Kansas Technology Enterprise Corporation.
- PI for the "Supply Chain Dynamic Web Configuration." 1999. This project enabled users to dynamically interact with a discrete-event simulation model over the web. Funded by a University Grant.

Curriculum Development

- Developed and taught the courses: "Enterprise Engineering," "Supply Chain Management," and "Lean Manufacturing." These courses present the concepts integrated with the use of enterprise models to analyze and design the enterprise at all levels (manufacturing, enterprise-wide, and the extended enterprise).
- Modified and taught the course: "Production Systems." Developed a project to simulate the factory requiring student teams to manage a factory.

8/96-12/98 **Research Engineer Scientist Associate IV** - Automation & Robotics Research Institute (ARRI)
Enterprise Engineering Program

Funded Proposals

- Co-PI for the As-Is and To-Be modeling effort for the Reconfigurable Tooling for Flexible Fabrication ARRI membership project and used these models as a front-end to creating a simulation of Northrop-Grumman stretch form processes. Funded by Northrop-Grumman.
- Co-PI for the As-Is modeling effort in support of the Machine Shop Nesting. Project provided a business case for developing a system implementation. Funded by Northrop-Grumman.
- PI for the Human Interface Control Agent prototype project using ActiveX, JAVA, and VBScript. Funded by the Agile Aerospace Manufacturing Research Center.

9/88-8/96 **Engineering Specialist** - Lockheed Martin Tactical Aircraft Systems (LMTAS), CAD/CAM Engineering Group

- Project Manager directing a team of Engineers and Programmers to develop, implement, and provide support for software applications based on CATIA to ensure that design models were correct and consistent. Applications in use by over 500 designers in engineering and manufacturing.
- Chairman of the Development Planning Council Drafting Committee for the CATIA Operators Exchange (COE), the CATIA National User's Group.
- Led the implementation team of the CATIA Data Manager, a relational database, to provide user access to both graphical and textual engineering data.
- Managed a multi-disciplinary team of Engineers and Programmers to research and implement a

system to transfer engineering data to automated manufacturing processes.

6/86-9/88 **Manufacturing Technology Engineer** - General Dynamics/Fort Worth Division, Manufacturing Systems Research Group

- Project Manager coordinating a team of Engineers, Factory Supervisors, and Programmers to research and implement an integrated manufacturing system. Project Cost-Benefit Analysis showed savings of two million dollars. Completed interim and final reports deliverable to the USAF.

PUBLICATIONS

1. Huff, B. L. & L. E. Whitman. (1999). "Reconfigurable manufacturing systems: An agility enabler." *International Journal of Agile Manufacturing*. 2(2) pp. 173-184.
2. Whitman, L.E., D.Liles, B. Huff, & K. J. Rogers. (2001) "A Manufacturing Reference Model For The Enterprise Engineer," *The Journal Of Engineering Valuation And Cost Analysis: Special Issue On Enterprise Engineering*, 4(1), pp. 15-36.
3. Whitman, L. & B. Huff. (2001) "On The Use Of Enterprise Models,*" International Journal Of Flexible Manufacturing Systems - Special Issue on: Business Process Design, Modeling, and Analysis*, 13(2), pp. 195-208.
4. Whitman, L.E., K. Krishnan, R. Agarwal, & N. Subbiah. (2000). "Dynamic web-based configuration changes in a supply chain." *Proceedings of the 2000 Flexible Automation and Intelligent Manufacturing Conference*, College Park, MD.
5. Chidambaram, S., L. Whitman, & S. H. Cheraghi. (1999). "A supply chain transformation methodology." *Proceedings of The 4th Annual International Conference on Industrial Engineering Theory, Applications and Practice*, San Antonio, TX USA.
6. Webster, B., L. Whitman, K. J. Rogers, & B. L. Huff. (1999). "Modeling an enterprise: Lessons from the field." *Proceedings of the Industrial Engineering Solutions Conference*, Phoenix, AZ.
7. Whitman, L., N. Sirivongpaisal, & K. J. Rogers. (1999). "Towards a supply chain research model." *Proceedings of the Industrial Engineering Research Conference*, Phoenix, AZ.
8. Whitman, L. and B. Huff (1999). "Dimensions of a living model of the enterprise." *Proceedings of the Industrial Engineering Research Conference*, Phoenix, AZ.
9. Whitman, L., B. Huff, & A. Presley. (1998). "The needs and issues associated with representing and integrating multiple views of the enterprise." *Design of Information Infrastructure Systems for Manufacturing*, Fort Worth, TX.
10. Whitman, L., B. Huff, & A. Presley. (1997). "Structured models and dynamic systems analysis: The integration of the IDEF0/IDEF3 modeling methods and discrete event simulation." *Proceedings of the Winter Simulation Conference*, Atlanta, GA.

Synergistic Activities:

- Developed the use of modeling projects for various courses. For Enterprise Engineering, developed a

Collaborators & Other Affiliations:

Collaborators:

Dr. S. Hossein Cheraghi, Wichita State University; Dr. Krishna Krishnan, Wichita State University; Dr. Donald Liles, The University of Texas at Arlington; Dr. Donald Malzahn, Wichita State University; Dr. Laura M. Meade, The University of Texas at Dallas; Dr. Adrien Presley, Truman State University; Dr. K. Jamie Rogers, The University of Texas at Arlington; Dr. Janet K. Twomey, Wichita State University; and Dr. D. Ryan Underdown, Lamar University.

Graduate and Post Doctoral Advisors:

Dr. Brian L. Huff, The University of Texas at Arlington.