

Govind Bharwani, Ph.D.

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Education

2006 Ph.D. in Engineering (Biomedical), Wright State University, Dayton, OH
1974 M.S. in Industrial Engineering, Lehigh University, Bethlehem, PA
1972 M.B.A. in General Management, Lehigh University, Bethlehem, PA
1970 B.E. in Mechanical Engineering, BITS, Pilani, India

Academic Experience

- 1) Ph.D. in Engineering with biomedical engineering as a focus field. Thesis topic: "The application of quantitative information processing to modeling and simulation of industrial workplace tasks". The research involved the application of information theory (the Fitts' and Hick-Hyman laws) to build quantitative model for industrial multi-task operations. The research was in the application of quantitative information processing to modeling and simulation of industrial workplace tasks.
Ph.D. completed in 2006. Thesis Advisor: Dr. Chandler Phillips, Professor Biomedical Industrial and Human Factors Engineering.
- 2) Currently teaching following ergonomics related courses at BIE department (WSU) for graduate and undergraduate students:
 - Industrial Ergonomics
 - Advanced Industrial Ergonomics
 - Kaizen/Lean Manufacturing for Engineers
 - Six Sigma for Engineers
- 3) Introduced Nursing Ergonomics seminars with the Nursing Institute of West Central Ohio at WSU.
- 4) Currently managing Applied Ergonomics Lab and Lean-Ergonomics Certificate program for Graduate Students.

Industrial and Healthcare Experience

- 1) Over 20 years of Ergonomics and Lean-Six Sigma consulting experience
- 2) Authored 93 ergonomics booklets for employee training
- 3) Provided on-site ergonomics training and consulting to over 100 companies.
- 4) Developed Nursing Ergonomics Programs for healthcare organizations in collaborations with the Nursing Institute of West Central Ohio.
- 5) Implemented Ergonomics and Six Sigma analysis for resident fall reduction in long-term care facility.
- 6) Implemented behavior management program for Alzheimer's resident care.

Research Experience

- 2007 Worked on a research project with the Nursing Institute on improving education and training techniques using remote robot
- 2004-2011 List of Journal Articles and Conference Papers

Journal Articles

- D. Sampsel, G. Bharwani, D. Mehling, S. Smith, Faculty and students' perceptions of the use of remote presence robot, *Clinical Simulation in Nursing* (accepted for publication, 2011)
- C.A. Phillips, D.W. Repperger, R.E. Kinsler, G. Bharwani and D. Kender, A human-machine interaction model in multi-task information processing: Implicit strategy and the unity model paradigm, *Computers in Biology and Medicine* (in review).
- R.E. Kinsler, C.A. Phillips, D.W. Repperger, and G. Bharwani, Use of human-machine interaction modeling to derive a performance metric, *Ergonomics* (in review).

Conference Papers

- C.A. Phillips, D.W. Repperger, R.E. Kinsler, G. Bharwani and D. Kender, A human-machine interaction parameter applied to the Multi-Attribute Task Battery, *Aviation, Space Environmental Medicine* (in review).
- C.A. Phillips, D.W. Repperger, R.E. Kinsler, S. Amin, G. Bharwani and D. Reynolds, Effect of information rates and channels on operator throughput, *Aviation, Space, Environmental Medicine*, 76:237, 2005.

- 1995-2000 Researched and wrote 93 ergonomic booklets for the training of production and office employees on workstation design and hand tool applications.

Awards and Grants

1. 2011 Dorland Health Silver Crown Award for Alzheimer's Care
2. 2011 AMDA Foundation / Pfizer Quality Improvement Award
3. 2012 Del Mar grant to develop community "Memory Resource Center" for people with early stage dementia or mild cognitive impairment in the Miami Valley

Industry Experience

- 1994-2004 Ergonomics Training Co., Covington, OH
- Provided ergonomics seminars to manufacturing companies
 - Provided on-site ergonomics training to over 100 industrial companies
- 1980-1994 Copeland Corporation, Sidney, OH
- Director of Training (2 years)
 - Manager of assembly operations (2 years)
 - Manager of Corporate Industrial Engineering (7 years)
 - Corporate Industrial Engineers (3 years)
- 1978-1980 McGraw Edison, Zanesville, OH (Industrial Engineer)
- 1976-1978 Dura Corporation, Zanesville, OH (Systems Engineer)
- 1974-1976 Abex Corporation, Marysville, OH (Process Engineer)

Conferences

- Sept., 2000 Repetitive Stress Injuries and Ergonomics at the Defense Research Institute (DRI) conference held in Chicago, IL
- March, 2009 Application of Ergonomics and Six Sigma Techniques for fall reduction in Long-term care facility - ACHCA regional conference in Indiana
- March, 2010 Behavior-Based Ergonomics (BBE) Approach to Alzheimer's/Dementia Care at St. Leonard, Dayton, Ohio – ACHCA regional conference in Indiana
- May, 2010 Behavior-Based Ergonomics (BBE) Approach to Alzheimer's/Dementia Care at St. Leonard, Dayton, Ohio – ACHCA national conference in Pennsylvania
- Sept., 2010 Behavior-Based Ergonomics (BBE) Approach to Alzheimer's/Dementia Care at St. Leonard, Dayton, Ohio – KAHSA (Kentucky Association of Homes & Services for the Aging) annual conference
- Nov., 2010 Behavior-Based Ergonomics (BBE) Approach to Alzheimer's/Dementia Care at St. Leonard, Dayton, Ohio – Miami Valley Alzheimer's Association Dementia Symposium