

Brian Nichols Craig, PhD, PE, CPE

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Business Address

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Career Objective

Provide leading industry based research in the area of human factors and ergonomics. Create a research and learning environment focusing not only on problem analysis but also on problem synthesis at both the graduate and undergraduate levels. This problem solving process incorporates human factors and ergonomic design, redesign, and intervention into existing and emerging systems, technologies, facilities, jobs, tools, and tasks in order to maximize system performance through maximization of employee capabilities, accommodation of employee limitations, elimination of waste, and ensuring make to use, all while providing for a safe workplace.

Qualifications

- Excellent industrial engineering and bioengineering background. Extensive specialized knowledge of ergonomics, employee physiology, human factors engineering, statistics, and safety engineering. Thorough understanding of engineering management concepts, production and inventory control, and experience in project management and administration. Additional knowledge of OSHA training procedures and compliance, industrial hygiene, occupational medicine, and epidemiology.
- Advanced skills in job/task analysis utilizing occupational, non-occupational, personal, and psychosocial risk factors. Exceptional work analysis and design (including job hazard analysis and control) through the use of *ErgoMaster*, *ErgoIntelligence*, and *MVTA*, as well as through the use of direct and indirect measures of physical and psychosocial job demands. Documented experience in scientific research and ergonomic design, intervention, and risk factor identification.
- Proficient in statistical analysis and interpretation using *SPSS*. Strong data analysis background using *ACCESS* as well as spreadsheet applications. Skillful in photograph and video editing and web design using *Photoshop*, *Premier*, *PageMaker*, *Acrobat*, *Illustrator*, *InDesign*, *GoLive*, and *FrontPage*, as well as other similar applications.
- Excellent written and verbal language skills.

Education

- **Texas A&M University**, College Station, TX
Doctor of Philosophy - Interdisciplinary Engineering

Chair: Jerome J. Congleton, PhD, PE, CPE
Graduation: August 2000
Major Field: Human Factors Engineering and Ergonomics
Minor Fields: Safety Engineering
Statistics

Dissertation: *The Relationship of Occupational, Non-Occupational, Personal, and Psychosocial Risk Factors with Occupational Injury in Manual Materials Handling Jobs: A Prospective Field Study*

- **Texas A&M University**, College Station, TX
Master of Science - Industrial Engineering

Chair: Jerome J. Congleton, PhD, PE, CPE
Graduation: May 1995
Major Field: Human Factors Engineering and Ergonomics
Minor Fields: Physiology
Engineering Management

Thesis: *Correlation of Injury Occurrence Data with Estimated Maximal Aerobic Capacity and Body Composition in a High-Frequency Manual Materials Handling Task*

- **Texas A&M University**, College Station, TX
Bachelor of Science - Industrial Engineering
Graduation: December 1992
- **Texas A&M University**, College Station, TX
Bachelor of Science - Bioengineering
Graduation: December 1990
- *Graduate School GPR: 3.71/4.00*

Experience

- **September 2005 – Present:** Associate Professor, Department of Industrial Engineering, Lamar University, Beaumont, Texas (Assistant Professor, Department of Industrial Engineering, Lamar University, Beaumont, Texas **January 2001 – September 2005**)

Responsibilities include, but are not limited to:

- Senior human factors, ergonomics, and safety engineering faculty member
- Courses taught
 - Occupational Ergonomics (undergraduate and graduate)
 - Human Factors Engineering (undergraduate and graduate)
 - Methods, Standards, and Work Design (undergraduate)
 - Industrial and Product Safety (undergraduate and graduate)
 - Production and Inventory Control (undergraduate and graduate)
 - Production and Inventory Systems (undergraduate)
 - Introduction to Industrial Engineering (undergraduate)
 - Special Topics in Ergonomics Research (graduate)
 - Special Topics in Ergonomic Instrumentation (graduate)
 - Special Topics in Office and Industrial Ergonomics (graduate)
 - Special Topics in Marine Ergonomics (graduate)
 - Special Topics in Semiconductor Ergonomics (graduate)
 - Special Topics in Probability of Detection in Visual Inspection (graduate)
 - Special Topics in Off-The-Job Injuries (undergraduate)
 - Undergraduate Honors Thesis (undergraduate)
- Graduate Students Advisory Councils
 - Committee Chair – two DE, three MES, and one ME students
 - Committee Chair for the following Thesis topics
 - *Effect of Cooling Suits (Race Suits) on Task Performance in Hot Environments for the Power Industry* (2004)
 - *Analytic Assessment of the Effect of Varying Schedules, Trade Routes and Sea States on Navigation Bridge Crew* (2003)
 - *A Field Investigation / Verification of Transportation Methods of Laptop Computer and Peripheral Equipment* (2003)
 - Committee Member for the following Thesis topics
 - *Estimation of the Probability of Occurrence of “Events” that Could Disrupt Operations on the Sabine – Neches Waterway by the Delphi Method* (2006)
 - Committee Member – one DE, one MES, and sixty-nine ME/MEM students
 - Committee Chair for the following Undergraduate Honors Thesis, *A Prospective Field Study of the Relationship of*

Potential Occupational Risk Factors with Occupationally Related Back Injury (2004)

- Member – Lamar University Institutional Review Board (2007 - Present)
 - Member – College of Engineering Faculty Promotion Committee (2007)
 - Member – University Health and Safety Committee (2007 – Present)
 - Member – Honors Program Director Search Committee (2007 – Present)
 - Member – Online Course Evaluation Advisory Committee (2007 – Present)
 - Senator – Faculty Senate (2005 – Present)
 - Chair – Faculty Search Committee (2004 – 2007)
 - Successfully hired four (4) Tenure Track Assistant Professors
 - Non Tenure Track Instructor Position (position converted to tenure track position)
 - Member – Texas Department of Transportation (TX DOT), Research Management Committee (RMC) 4, Technical Advisory Panel (TAP) (2004 – Present)
 - Member – University Honors Committee (2004 – Present)
 - Student mentor, WINGS Foundations of Excellence Mentoring Program (2004 - present)
 - Member – Engineering Mathematics Curriculum Committee (2004)
 - Member – Student-Faculty Relations Committee (College of Engineering and University levels) (2003 – Present)
 - Member – HEAF Funding Allocation Committee (2003 – Present)
 - Member – University Professor/Merit Award College Committee (2002, 2007)
 - Undergraduate Industrial Engineering Advisor (2002 – Present)
 - Alpha Pi Mu Faculty Advisor (2002 – Present)
 - Researcher – Transportation Research Group – Texas Transportation Institute (TTI) and Center for Ports and Waterways (CPW), Lamar University Divisions (2001 – Present)
 - Lab and equipment acquisitions manager (2001 – Present)
 - Member, Industrial Engineering Department Advisory Council (IEDAC) (2001 – Present)
 - Member, Industrial Technology Program Advisory Council (ITPAC) (2001 – Present)
 - Department of Industrial Engineering Newsletter Editor (2001 – Present)
 - Member – All University Speaker Search Committee (2001)
 - Teaching, research, and publishing
- **August 2001 – Present:** Owner, Harmonic Work Science, Beaumont, Texas
 - Projects include, but are not limited to:
 - *Office Ergonomics Evaluation*, Nalco, Beaumont, Texas (2007)

- *Human Performance in Inspection*, American Bureau of Shipping, Houston, Texas (2006 – 2007)
- *Analysis of Incident Investigation and Root Cause Software*, American Bureau of Shipping, Houston, Texas (2007)
- *Human System Integration (HSI) Checklist for Military Vessels*, American Bureau of Shipping, Houston, Texas (2006 – 2007)
- *Guide for Means of Access for Inspection for Oil Tankers and Bulk Carriers*, American Bureau of Shipping, Houston, Texas (2005 – 2006)
- *Controller Dynamics*, Altec Industries, Inc., Birmingham, Alabama (2004 – 2005)*
- *Laboratory Ergonomic Evaluation*, Intercontinental Terminals Company, Deer Park, Texas (2004)
- *Effect of Fatigue on Human Error and Task Performance on Navigational Bridges*, American Bureau of Shipping, Houston, Texas (2002 – 2003)*
- *Implementation of TQM during Location Transition of a Synthetic Rubber Manufacturer*, Ameripol Synpol, Beaumont, Texas (2002)
- *Recommended Lifting Guideline with Respect to an International Population*, American Bureau of Shipping, Houston, Texas (2002)
- *Analysis of the Tempur-Pedic Foam in Office Seating*, Tempur-Pedic, Inc., Birmingham, Michigan (2002)**
- *Validation of Ergonomic Criteria contained in the ABS Guidance Notes for the Application of Ergonomics to Marine Systems*, American Bureau of Shipping, Houston, Texas (2001 – 2002)**
- *Employee Utilization Guidelines in a Coking Operation at ExxonMobil Refining and Supply*, Beaumont, Texas (2001)
- Expert Witnessing
- Ergonomic Product Design
- Ergonomic Product Evaluation

(NOTE: * indicates inclusion of graduate students and ** indicates inclusion of undergraduate students)

- **August 1998 – January 2001:** Potroom Supervisor, Tennessee Operations, Alcoa Inc., Alcoa, Tennessee

Responsibilities include, but were not limited to:

- Vacation relief shift coordinator for all three shifts (January 1999 – December 1999)
- Accountable for the production operations within the P-225 smelting potlines
- Direct supervision and interaction with the hourly work crews and responsible for both their job performance and personal safety
- Single point accountable - Smelter Ergonomics Program
 - Internal and external audits
 - Provide ergonomic measurables to the Strategic Safety Lead Team

- Co-leader – Smelting Ergonomics Committee
 - Alcoa Production System Representative - Potrooms
- **September 1997 – August 1998:** Ergonomics and Safety Specialist, Primary Metals Division, Alcoa Inc., Knoxville, Tennessee
 - Responsibilities included, but were not limited to:
 - Ergonomic and safety resource for the seven domestic Primary Metals locations
 - Plant safety and health program/process evaluations and recommendations
 - Ergonomic leadership in emerging engineering design
 - Ergonomic evaluation, redesign, and intervention in existing systems and workstations
 - Ergonomic and safety training
 - Organizational responsibilities for the Primary Metals Critical Six Audit Structure
 - Auditor for Corporate and Divisional Safety Audits
 - Real time injury/risk factor investigations, descriptions, and statistical analyses for all Primary Metals domestic operations
 - Member of Primary Metals Safety and Health Lead Team
 - Co-leader of Knoxville Office Safety Committee
 - Publish weekly safety tip for office/traveling employees
- **June 1997 – August 1997:** Ergonomic Consultant, Compaq Computer Corporation, Corporate Safety and Health, Houston, Texas
 - Responsibilities included, but were not limited to:
 - VDT workstations evaluation, redesign, and intervention
 - Ergonomic considerations at the VDT workstation presentation development and delivery
 - Computer board and chassis cell workstation evaluation, redesign, and intervention
- **March 1997 – August 1997:** Wellness Program Instructor, Ergonomics and Physical Stressors, United States Department of Agriculture, Food Safety and Inspection Service, College Station, Texas
- **December 1996 – May 1997:** Ergonomic Internship, Compaq Computer Corporation, Corporate Safety and Health, Houston, Texas
 - Responsibilities included, but were not limited to:
 - Computer board and chassis cell workstation evaluation, redesign, and intervention
 - VDT workstations evaluation, redesign, and intervention
 - Print shop ergonomic evaluation, redesign, and intervention
 - Ergonomic considerations at the VDT workstation presentation development and delivery

- **August 1996 – August 1997:** Ergonomic Consultant, Pathway Industries, Bryan, Texas

Responsibilities included, but were not limited to:

- Ergonomic evaluation of check processing procedure performed for Banco Popular de Puerto Rico, San Juan, Puerto Rico
- Critical investigation of the analysis of the low back pain risk factors performed by the National Institute for Occupational Safety and Health
- Critical investigation of the research project draft entitled “Laboratory Evaluation of Back Support Belts” for the National Institute for Occupational Safety and Health
- Ergonomic design in the development of a material handling cart for Jenoptik Infab, Austin, Texas

- **August 1996 – December 1996:** Ergonomic Consultant, Analysis of the drive side door on the side loading recycling truck, Browning Ferris Industries, Houston, Texas

- **November 1995 – August 1997:** Ergonomic Research Associate, Texas A&M University, National Science Foundation Industry/University Cooperative Research Center in Ergonomics, College Station, Texas

Responsibilities included, but were not limited to:

- Research team leader - “Risk Factor Identification in Several Manual Materials Handling Jobs - NIOSH Lifting Equation and Energy Expenditure Validation Study.”
 - Two year, \$228,000 investigation with 206 participants, five statewide locations, and three different companies
 - Gathered potential injury risk factor information (personal, occupational, non-occupational, and psychosocial)
 - Combined with past research to create a comprehensive occupational injury model for manual materials handling occupations
- Proposal, testing protocol, and budget development
- Testing equipment procurement, calibration, and training
- Identification of injury risk factors (occupational, non-occupational, personal, and psychosocial)
- Statistical model development
- Ergonomic analysis of several Industry Partners’ manual materials handling jobs in the southern United States
- Presentation of findings to Industry Partners
- Estimation of maximal aerobic capacities and measurement of game day energy expenditure and heart rates - Texas A&M University Football Team
- Workstation evaluation, design, and intervention, Area One Maintenance, Texas A&M University, College Station, Texas

- **November 1994 – October 1995:** Industrial Engineering Internship, United Parcel Service, Corporate Industrial Engineering, Atlanta, Georgia

Responsibilities included, but were not limited to:

- Injury/risk factor investigations, descriptions, and statistical analyses for all UPS Domestic Operations
- Ergonomic training on data acquisition and analysis of trailer unload and trailer load
- Development of specifications for hand-held printer design
- Development of injury risk factor prediction model

- **October 1992 - October 1994:** Ergonomic Consultant, Pathway Industries, Bryan, Texas

Responsibilities included, but were not limited to:

- Design and analysis of materials handling interventions for high frequency manual materials handlers
- Research team leader, high frequency manual material handling employee physiology data gathering group.
 - Two year, \$250,000 investigation with 236 participants and four national locations
 - Gathered potential injury risk factor information (personal, occupational, non-occupational, and psychosocial)
 - Provided peer reviewed scientific research linking personal risk factors with the health outcome of occupational injury
- Provided training in nerve conduction velocity, vibrometry and video tape acquisition and analysis in workstations for United Parcel Service, Richmond, Virginia
- Performed statistical analysis on nerve conduction velocity, vibrometry, body discomfort and productivity before and after installation of ergonomic office/data entry workstations for United Parcel Service, Virginia and Northern California Districts
- Performed detailed literature reviews, prepared reports and presentations on workstation research, back belt research, standing fatigue research, internet accessibility, and laser safety research for United Parcel Service, Atlanta, Georgia
- Ergonomic evaluation of an industrial molding process performed for Longwood Elastomers, Brenham, Texas

- **June 1993 - December 1993:** Research Assistant, Texas A&M University, College Station, Texas. Development of *WINDOWS* based 1981 and 1991 NIOSH lifting equation software
- **September 1993 - November 1993:** Ergonomic Consultant, Workstation evaluation, design, and intervention, Capital Anesthesiology Association, Austin, Texas
- **September 1993:** Workstation evaluation, design, and intervention for Electronics Training Division, Texas A&M University, College Station, Texas

- **February 1993 - May 1993:** Generator turbine breakdown evaluation, design, and intervention for Dansby Power Plant, Bryan, Texas
- **June 1992 - August 1992:** Workstation evaluation, design, and intervention for Texas Municipal Power Agency, Carlos, Texas
- **June 1990 - August 1990:** Rehabilitation Engineering Team, Texas A&M University, College Station, Texas
- **June 1989 - August 1991:** Resident Advisor, Resident Housing Association, Texas A&M University, College Station, Texas
- **November 1988 - February 1992:** Student Worker, Beutel Health Center, Texas A&M University, College Station, Texas
- Employed throughout college career

Training

- **June 2008:** Engineering Ethics, Department of Continuing Education, Lamar University, Beaumont, TX (1/2 Day)
- **January 2007:** Faculty Workshop on Accessing Program Outcomes Accreditation Board of Engineering and Technology (ABET), Phoenix, AZ (1 Day)
- **October 2003:** A Human Factors Approach to Accident Analysis and Prevention, All-Day Workshop, Denver, CO (1 Day)
- **January 2002:** OSHA Strategic Initiative and OSHA Recordkeeping Training, Beaumont, TX (1 Day)
- **May 2000:** Alcoa Production System Training, Alcoa, TN (5 Days)
- **December 1999:** Supervisor Training – Core Skills for Building Commitment and Preparing Others to Succeed, Alcoa, TN (2 Days)
- **May 1999:** Supervisor Training - Potroom Process Training, Alcoa, TN (1/2 Day)
- **March 1999:** Supervisor Training - Labor Relations, Alcoa, TN (1 Day)
- **December 1998:** Supervisor Training - Handling Difficult Situations as a Supervisor Through Both Positive and Negative Reinforcement, Alcoa, TN (1 Day)
- **November 1998:** Supervisor Training - Potroom Process Training, Alcoa, TN (3 Days)
- **April 1998:** Alcoa Production System Training, Charlotte, NC (2 Days)
- **April 1998:** Environmental Health and Safety Workshop, Atlanta, GA (3 Days)
- **April 1998:** Health and Safety Management System, Pittsburgh, PA (2 Days)
- **March 1998:** Health and Safety Auditor Training, Addy, WA (1 Day)

Publications

- McSweeney, K., Pray, J., and Craig, B., Integration of Human Factors Engineering into Design – An Applied Approach. *Royal Institution of Naval Architects (RINA) Human Factors Conference Proceedings*, London, Accepted for February 2009

- Craig, B., Congleton, J., Beier, E., Kerk, C., Amendola, A., Gaines, W., A Prospective Field Study of the Relationship of Potential Occupational Risk Factors with Occupational Related Back Injury, Date Submitted: 28-Aug-2008, Manuscript ID: JOEH-08-0136**
- Furtado, A. L., Craig, B. N., Chard, J. T., Zaloom, V. A., and Chu, H., Cooling Suits, Physiological Response, and Task Performance in Hot Environments for the Power Industry. *International Journal of Occupational Safety and Ergonomics*, 13(3), 2007*
- Craig, B. N., Furtado, A. L., Chard, J. T., Zaloom, V. A., and Chu, H., Effect of Cooling Suits on Task Performance in Hot Environments for the Power Industry - Abstract. *Institute of Industrial Engineers Annual Conference*, May 2007*
- American Bureau of Shipping, *Guide for Means of Access to Tanks and Holds for Inspection*, Co-contributor, American Bureau of Shipping, Houston, Texas, March 2007
- Craig, B. N., Congleton, J. J., Kerk, C. J., Amendola, A. A., and Gaines, W. G., A Prospective Field Study of the Relationship of Potential Personal, Non-Occupational, Occupational, and Psychosocial Risk Factors with Occupational Injury/Illness. *Ergonomics*, Submitted February, 2006
- Craig, B. N., Congleton, J. J., Kerk, C. J., Amendola, A. A., and Gaines, W. G., Psychosocial Risk Factors with Occupational Injury/Illness. *American Journal of Industrial Medicine*, Submitted January, 2006
- Craig, B. N., Congleton, J. J., Kerk, C. J., Amendola, A. A., and Gaines, W. G., Personal and Non-occupational Risk Factors with Occupational Injury/Illness. *American Journal of Industrial Medicine*, 49(4), April, 2006
- Craig, B., *Ergonomics*, in Wnek, G and Bowlin, G (Eds.), *Encyclopedia of Biomaterials and Biomedical Engineering*, July 2004
- McSweeney, K., Craig, B., Congleton, J., and Miller, D., Ergonomic Program Effectiveness for Office and Laboratory Workers, *Proceedings of the 47th Annual Human Factors and Ergonomics Conference*, Human Factors and Ergonomics Society, October 2003
- American Bureau of Shipping, *Guidance Notes for the Application of Ergonomics to Marine Systems*, Co-contributor, American Bureau of Shipping, Houston, Texas, April 2003
- Spigener, J., Gaupreaux, G., Amato, F., and Craig, B., Effective Application of Behavioral Based Processes in Offshore Operations. *Proceedings of the 2nd International Workshop on Human Factors in Offshore Operations*, Workshop held in April 2002, Revised proceedings published May 2003
- Dede, K., White, K., and Craig, B., Performing Equipment Review in the Field Rather Than At the Factory, *Proceedings of the Applied Ergonomics Conference*, Institute of Industrial Engineers, March, 2003*
- Craig, B. N., Congleton, J. J., Kerk, C. J., Amendola, A. A., Gaines, W. G., and Jenkins, O. C., A Prospective Field Study of the Relationship of Potential Occupational Risk Factors with Occupational Injury/Illness. *American Industrial Hygiene Association Journal*, May/June 2003

- McSweeney, K., Craig, B., Congleton, J., and Miller, D., Ergonomic Program Effectiveness: Ergonomic and Medical Intervention, *International Journal of Occupational Safety and Ergonomics*, 8(4), 2002
- Craig, B., Fillyaw, J., and Joubert, B., Analysis of Buttock-Thigh Pressure of Five High End Ergonomic Office Chairs: A Field Study. *Proceedings of the Industrial Engineering Research Conference*, May 2002**
- Bales, D. W., Craig, B. N., Congleton, J. J., Kerk, C. J., Amendola, A. A., Gaines, W. G., and Jenkins, O. C., The Influence of Supporting the Oxylog Instrument on Estimated Maximal Aerobic Capacity During a Step Test and Heart Rate in a Lifting Test, *Applied Ergonomics*, 32/4, August 2001, pp 367-377
- M^cSweeney, K. P., Congleton, J. J., Kerk, C. J., Jenkins, O. E., and Craig, B. N., Correlation of Recorded Injury and Illness Data with Smoking, and Absolute Aerobic Capacity. *International Journal of Industrial Ergonomics*, 24(2), May, 1999
- Craig, B. N., Congleton, J. J., Kerk, C. J., Lawler, J. M., and M^cSweeney, K. P., Correlation of Injury Occurrence Data With Estimated Maximal Aerobic Capacity and Body Composition in a High-Frequency Manual Materials Handling Task. *American Industrial Hygiene Association Journal*, January 1998

(NOTE: * indicates inclusion of graduate students and ** indicates inclusion of undergraduate students)

Conference, Workshop, and Seminar Presentations

- McSweeney, K., Pray, J., and Craig, B., Integration of Human Factors Engineering into Design – An Applied Approach. *Royal Institution of Naval Architects (RINA) Human Factors Conference*, London, Accepted for February 2009
- Craig, B. N., Furtado, A. L., Chard, J. T., Zaloom, V. A., and Chu, H., Effect of Cooling Suits on Task Performance in Hot Environments for the Power Industry. *Institute of Industrial Engineers Annual Conference*, May 2007*
- Craig, B. N., *Occupational Injury/Illness Risk Factor Data in the Manual Materials Handling Industry*, Human Factors and Ergonomics Conference, Houston Chapter, May 2005
- Craig, B. N., *Ergonomic Analysis Tools*, Southeast Texas Safety Seminar, ASSE Sabine Neches Chapter, Invited Speaker, January 2005.
- Amendola, A. and Craig, B., *A Holistic View of Potential Risk Factors for Workers*, Steps to a Healthier US Workforce 2004: Integrating Protection and Promotion, National Institute for Occupational Safety and Health, Poster Session, Washington, DC, October 2004
- Craig, B., *Relationship of Potential Personal, Non-Occupational, Occupational, and Psychosocial Risk Factors with Occupational Injury*, Musculoskeletal and Neurovascular Disorders – The State of the Research Regarding Workplace Etiology and Prevention Symposium, National Advisory Committee on Ergonomics (NACE), Occupational Safety and Health

Administration (OSHA), Invited Presenter, United States Department of Labor, Washington, DC, January 2004

- Congleton, J., Craig, B., Benden, M., and Parker, M., *Current and Future Office Ergonomic Trends*, 47th Annual Human Factors and Ergonomics Conference, Human Factors and Ergonomics Society, Poster Session, October 2003
- McSweeney, K., Craig, B., Congleton, J., and Miller, D., *Ergonomic Program Effectiveness for Office and Laboratory Workers*, 47th Annual Human Factors and Ergonomics Conference, Human Factors and Ergonomics Society, October 2003
- Craig, B. N., *Transportation Methods of Laptop Computers and Peripheral Equipment*, Industrial Engineering Research Conference, Institute of Industrial Engineers Annual Conference, Invited Speaker (NOTE: due to the State of Texas's Budget deficit, I was not able to travel to Portland, OR), May, 2003
- Dede, K., White, K., and Craig, B., *Performing Equipment Review in the Field Rather Than At the Factory*, Applied Ergonomics Conference, Institute of Industrial Engineers, March, 2003*
- Craig, B., Fillyaw, J., and Joubert, B., *A Field Study of Buttock-Thigh Pressures of Five Ergonomic Office Chairs*, Industrial Engineering Research Conference, Institute of Industrial Engineers Annual Conference, May, 2002**
- Co-Chair, *Effective Application of Behavioral Based Processing in Offshore Operations*, International Workshop on Human Factors in Offshore Operations, April, 2002
- Craig, B. N., *Ergonomics*, Southeast Texas Safety Seminar, ASSE Sabine Neches Chapter, Invited Speaker, January 2002

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Industry Presentations

- Craig, B., (2004). *Human Factors and Ergonomics Guidelines in Auditory Displays*, Department of Audiology, Lamar University, Beaumont, Texas
- Elliot, B. and Craig, B., (2003). *Evaluation of Off-the-Job Injuries*, CenterPoint Energy, Beaumont, Texas**
- Craig, B., (2001). *Validation of Ergonomic Criteria contained in the ABS Guidance Notes for the Application of Ergonomics to Marine Systems*, American Bureau of Shipping, Houston, Texas
- Craig, B., Fillyaw, J., and Joubert, B. (2001). *Ergonomic Chair Field Evaluation and Comparison*, Neutral Posture, Inc., Bryan, TX.**
- Craig, B. N., *Ergonomics in the Potrooms*, Alcoa, Inc. – Tennessee Operations, February 2000
- Craig, B. N., *State of Ergonomics at the Tennessee Smelter*, Alcoa, Inc. – Primary Metals Ergonomics Conference, September 1999
- Craig, B. N., *The Relationship of Occupational, Non-Occupational, Personal, and Psychosocial Risk Factors with the Health Outcome of Occupational Injury in*

- Manual Materials Handling Jobs: A Prospective Field Study - Update*, National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University - Industry Advisory Board, April 1999
- Craig, B. N., *State of Ergonomics and Safety Within the Primary Metals Division*, Aluminum Company of America – Primary Metals Smelting Operational Lead Team Meeting, April 1998
 - Craig, B. N., *Ergonomics Awareness*, Aluminum Company of America
 - Warrick Operations' Safety School, April 1998
 - Tennessee Operations' Recalled Employee Safety Training, June 1998
 - Craig, B. N., *Industrial Ergonomics*, Aluminum Company of America
 - Warrick Operations' Ergonomics Committee, Three-Day Training Course, March 1998
 - Tennessee Operations' Ergonomics Committee, Three Day Training Course, February 1998
 - Wenatchee Works' Ergonomics Committee, Three Day Training Course, January 1998
 - Massena Operations' Ergonomics Committee, Three Day Training Course, January 1998
 - Craig, B. N., *Introduction to Ergonomics in Design*
 - Aluminum Company of America – Tennessee Operations' Engineering Staff, March 1998
 - Fluor Daniel/Alcoa Partnership Engineering Staff, Greenville, SC, March 1998
 - SNC Lavalin/Alcoa Partnership Engineering Staff, Montreal, Canada, February 1998
 - Craig, B. N., *Ergonomics in the Office*,
 - Aluminum Company of America – Knoxville Office Staff (Primary Metals and Rigid Packaging World Headquarters, Knoxville, TN), October 1997 – August 1998
 - Compaq Computer Corporation – Main Campus, Houston, TX, April 1997 – August 1997
 - Craig, B. N., *Ergonomic Evaluation of the Docutek Area in the Print Shop*, Compaq Computer Corporation, April, 1997
 - Craig, B. N., *Correlation of Injury Occurrence Data With Estimated Maximal Aerobic Capacity and Body Composition in a High-Frequency Manual Materials Handling Task - Update*, National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University - Industry Advisory Board, April 1997 and August 1996
 - Craig, B. N., *Investigation of Manual Materials Handlers and Their Environments*, United Parcel Service, February 1997
 - Craig, B. N., *Measurement of Maximal Aerobic Capacity and Task Energy Expenditure in Industry*, Human Factors and Ergonomics Society - Texas A&M University Chapter October, 1993
 - Craig, B. N., *An Ergonomic Analysis of the Turbine Overhaul at the Dansby Power Plant (Turbine Disassembly)*, Dansby Power Plant, May 1993

- Craig, B. N., *An Ergonomic Analysis of the Administration Building at the Texas Municipal Power Agency*. Texas Municipal Power Agency, December 1992

(NOTE: * indicates inclusion of graduate students and ** indicates inclusion of undergraduate students)

Technical Papers/Reports

- McSweeney, K. and Craig, B., (2007). OSV Habitability Measurements on the L&M Chermamie Botruc #39, TR-2007-04, American Bureau of Shipping, Houston, TX
- Craig, B., (2004). *Ergonomic Evaluation of the Laboratory Area – Intercontinental Terminals, Deerpark, TX*
- McSweeney, K. and Craig, B., (2003). Assessment of the Habitability and Ambient Environmental Characteristics of the Genesis and Typhoon Offshore Installations - American Bureau of Shipping, Houston, TX
- Craig, B., (2003). *Vessel Motion and its Effect on Human Fatigue – American Bureau of Shipping, Houston, TX*
- Craig, B., (2002). *Framework Preparation for the American Bureau of Shipping Guidance Notes on the Application of Ergonomics to Marine Systems Evaluator’s Checklist – American Bureau of Shipping, Houston, TX*
- Craig, B., (2002). *Ergonomic Chair Field Evaluation and Comparison, Tempur-Pedic, Inc. Birmingham, MI.*
- Craig, B., (2002). *Ergonomic Chair Field Evaluation and Comparison II, Neutral Posture, Inc., Bryan, TX.*
- Craig, B., (2001). *Comparison of the Existing ABS Guidance Notes on the Application of Ergonomics to Marine Systems criteria with the American Bureau of Shipping Guide for Crew Habitability on Ships – American Bureau of Shipping, Houston, TX.*
- Craig, B., (2001). *Development of an Ergonomic Criteria Matrix for the American Bureau of Shipping Guidance Notes on the Application of Ergonomics to Marine Systems – American Bureau of Shipping, Houston, TX.*
- Craig, B., Fillyaw, J., and Joubert, B. (2001). *Ergonomic Chair Field Evaluation and Comparison, Neutral Posture, Inc., Bryan, TX.***
- Craig, B., (2001). *Employee Utilization Guidelines in a Coking Operation at Exxon-Mobile Refining and Supply, Beaumont, TX.*
- Craig, B., (2000). *Self-Assessment of the Ergonomics Program in the Tennessee Operations Smelter, Alcoa, TN.*
- Craig, B., (1998). *Evaluation of the Safety Program at Northwest Alloys, Inc., Following a Major Incident Involving Mobile Equipment, Addy, WA.*
- Craig, B., (1998). *Ergonomic and Safety Evaluation at the Badin Works Ingot Plant, Badin, NC.*
- Craig, B., (1997). *Ergonomic Evaluation of the Docutek Area in the Print Shop for Compaq Computer Corporation, Houston, TX.*

- Congleton, J., Craig, B., (1996). *Ergonomic Evaluation of Banco Popular Check Processing Procedure for Banco Popular de Puerto Rico*, San Juan, Puerto Rico.
- Congleton, J., Monford, L., and Craig, B., (1994). *An Ergonomic Evaluation of an Industrial Molding Process at Longwood Elastomers*, Brenham, TX.
- Congleton, J., Craig, B., and M^cSweeney, K., (1993). *An Ergonomic Workstation Analysis of the Electronics Training Division at Texas A&M University*, College Station, TX.
- Congleton, J., Al-Eisawi, K., Craig, B., Goodman, S., Key, W., M^cSweeney, K., Tso, C., and Sampanthan, S., (1993). *An Ergonomic Analysis of the Turbine Overhaul at the Dansby Power Plant (Turbine Disassembly)*, Bryan, TX.
- Congleton, J., Arriola, D., Barnard, M., Craig, B., and Harris, M., (1992). *An Ergonomic Analysis of the Administration Building at the Texas Municipal Power Agency*, Carlos, TX.

(NOTE: * indicates inclusion of graduate students and ** indicates inclusion of undergraduate students)

Reviews

- Craig, B. N., Review of a proposed peer-reviewed journal article, Musculoskeletal Injuries Resulting from Patient Handling Tasks Among Hospital Workers, *American Journal of Industrial Medicine*, October, 2008
- Editorial Review Board member for the peer-reviewed journal *The Open Epidemiology Journal* (2008 – Present)
- Craig, B. N., Reviewer for Human Engineering and Ergonomic Risk Analysis Process (HEERAP), Department of Defense project through Concurrent Technologies Corporation (November 2007 – January 2008)
- Editorial Review Board member for the peer-reviewed journal *Scientific Journals International* (2007 – Present)
- Craig, B. N., Review of a proposed peer-reviewed journal article, The Effects of Ergonomic Pacing Software on Employee Accuracy and Productivity in a Health Care Setting, *American Journal of Industrial Medicine*, August, 2007
- Craig, B. N., Review of a proposed peer-reviewed conference paper, Habitability: Setting Criteria Fit for Humans, *10th International Symposium on Practical Design of Ships & Other Floating Structures*, June, 2007
- Craig, B. N., Review of a proposed peer-reviewed journal article, Influence of walking up and down stairs on pedometer accuracy, *Medicine and Science in Sports and Exercise*, December, 2006
- Craig, B. N., Review of a proposed peer-reviewed journal article, Physical Fitness and Injuries in Police, *Medicine and Science in Sports and Exercise*, September, 2006
- Craig, B. N., Review of a proposed new textbook, *Office Ergonomics: A Recipe for Success*, CRC Press, January, 2006

- Craig, B. N., Technical Review of *Guide for Means of Access to Tanks and Holds for Inspection*, American Bureau of Shipping, November, 2005
- Craig, B. N., Technical Review of NIOSH Research Proposal, Dart Document Tracking Number: DHHS-CDC-NIOSH Request Number 2003-Q-00966 (Requisition Number: 03054T96), December, 2003
- Craig, B. N., Technical Review of NIOSH Manuscript, Dart Document Tracking Number: 03-199, October, 2003
- Reviewer for the peer-reviewed journal *Ergonomics* (2003 – Present)
- Craig, B. N., Review of the Textbook, *Production and Operations Analysis*, 4th Ed., by Steven Nahmias, April/May 2003
- Craig, B. N., Technical Review of NIOSH Manuscript, Dart Document Tracking Number: 01-161, November, 2001.
- Congleton, J. J., Craig, B. N., Book Review of *Occupational Ergonomics: Theory and Application* by Amit Bhattacharya and James McGlothlin, Monticello, NY: Marcel Dekker, Inc. *Ergonomics in Design*, Human Factors and Ergonomics Society, Santa Monica, CA, April 1998.

Research Grants/Contracts/Projects

- Leading Safety Indicators in the Maritime Industry, American Bureau of Shipping, Houston, Texas, Principal Investigator (Spring 2008 – Fall 2009)
- The Implementation of Human Factors Engineering in to the Design of Offshore Installations, American Bureau of Shipping, Houston, Texas, Principal Investigator (Spring 2008)
- Analysis of Habitability Measurements on Offshore Supply Vessels for Offshore Supply Vessels, American Bureau of Shipping, Houston, Texas, Principal Investigator (Spring 2007)
- Secondary Analysis of Low Back Pain Risk Factor Data in the Manual Materials Handling Industry – Research Enhancement Grant, Lamar University, Principal Investigator (Fall 2005 – Spring 2006)
- *Controller Dynamics*, Altec Industries, Birmingham, Alabama, Principal Investigator, (Fall 2004 – Spring 2005)
- *Effect of Cooling Suits (Race Suits) on Task Performance in Hot Environments for the Power Industry*, Altec Industries, Birmingham, Alabama, Principal Investigator, Master's Thesis Committee Chair, (Summer – Fall 2004)*
- *Analytic Assessment of the Effect of Varying Sea Conditions on Navigational Bridge Crew*, American Bureau of Shipping, Houston, Texas, Principal Investigator, Master's Thesis Committee Chair, (Summer – Fall 2003)*
- *Ergonomic Solutions in the Semi-Conductor Industry*, Texas Instruments, Inc., Dallas, Texas, Principal Investigator (Spring 2003)*

- *Analytic Assessment of the Effect of Fatigue on Task Performance of Mariners*, American Bureau of Shipping, Houston, Texas, Principal Investigator, Master's Thesis Committee Chair, (Fall 2002)*
- *Ergonomic Design Applications in the Semi-Conductor Industry*, Texas Instruments, Inc., Dallas, Texas, Principal Investigator (Summer 2002 – Fall 2002)*
- *Development of X-Ray Fluorescence (XRF) Technology for Characterizing Metal Capture Efficiency of Various Sorbents*, Texas Hazardous Waste Research Center, Beaumont, Texas, Principal Investigator with three Co-Principal Investigators (Fall 2002 – Summer 2005)*
- *Revision of the ABS Guidance Notes for the Application of Ergonomics to Marine Systems*, American Bureau of Shipping, Houston, Texas, Principal Investigator (Fall 2002 – Spring 2003)
- *A Field Investigation/Verification of Transportation Methods of Laptop Computers and Peripheral Equipment*, Master's Thesis Committee Chair (2002 – 2003)*
- *Analytic Assessment of the Effect of Varying Sea Conditions on Navigational Bridge Crew*, American Bureau of Shipping, Houston, Texas, Principal Investigator, Master's Thesis Committee Chair, (Summer 2002 – Fall 2002)*
- *Development of an Ergonomics Checklist to be Used to Evaluate Compliance With the American Bureau of Shipping Guidance Notes on the Application of Ergonomics to Marine Systems* – American Bureau of Shipping, Houston, Texas, Principal Investigator (Summer 2002)
- *Framework Preparation for the American Bureau of Shipping Guidance Notes on the Application of Ergonomics to Marine Systems Evaluator's Checklist* – American Bureau of Shipping, Houston, Texas, Principal Investigator (Spring 2002)
- *The Back Index: A Proposal for the Collaboration Between Lamar University and the National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University* – National Science Foundation, Principal Investigator (Summer 2002 – Summer 2004)**
- *Comparison of the Existing ABS Guidance Notes on the Application of Ergonomics to Marine Systems Criteria with the American Bureau of Shipping Guide for Crew Habitability on Ships* – American Bureau of Shipping, Houston, Texas, Principal Investigator (Fall 2001)
- *Development of an Ergonomic Criteria Matrix for the American Bureau of Shipping Guidance Notes on the Application of Ergonomics to Marine Systems* – American Bureau of Shipping, Houston, Texas, Principal Investigator (Fall 2001)
- *A Proposal for the Collaboration Between Lamar University and the National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University* – Research Enhancement Grants, Lamar University, Principal Investigator (Fall 2001)* **
- *Evaluation and Analysis of Buttock-Thigh Pressures Associated with Four Different Ergonomic Chair Models: A Field Study* – Neutral Posture, Inc., Bryan, Texas, Principal Investigator (Summer 2001)**

- *NIOSH/Energy Expenditure Local Field Studies* - National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University, Investigative Team Leader (1996 – 1997)
- *NIOSH/Energy Expenditure Local Field Studies* - National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University, Investigative Team Leader (1995 – 1996)

(NOTE: * indicates inclusion of graduate students and ** indicates inclusion of undergraduate students)

Licenses, Certifications, Honors, and Offices Held

- Professional Engineer, Texas Board of Professional Engineers, Serial Number 98742
- Certified Professional Ergonomist, Board of Certification in Professional Ergonomics, BCPE Number 846
- Invited Keynote Speaker, Jefferson County Go-Texan Scholarship Banquet – Beaumont, Texas, May 2008
- Program Director (Director-at-Large 1), Human Factors and Ergonomics Society – Houston Chapter, 2005 – 2007
- Research Enhancement Grant Award, Lamar University, 2005
- University Merit Award, Lamar University, 2005
- Research Enhancement Grant Award, Lamar University, 2001
- Alpha Pi Mu - Industrial Engineering Honor Society
- Graduate Enhancement Scholarship, 1994 – 1995

Activities and Interests

- Member – Human Factors and Ergonomics Society
- Senior Member – Institute of Industrial Engineers
- Member – American Society of Safety Engineers
- Member – American Industrial Hygiene Association
- Member, International Organization for Standardization, Technical Committee 159, SC 5 (ISO TC159/SC5), *Ergonomics of the Physical Environment*, 2008 – Present
- Member – Wesley United Methodist Church
- Volunteer – Jefferson County Go Texan
- Volunteer – Habitat for Humanity – Apostles Build
- Volunteer – United Methodist Action Reach-Out Mission by Youth (UM Army)
- Baseball, softball, golf, cardiovascular and resistance training, and racquetball
- Alumnus – Delta Chi Fraternity