# Brian Nichols Craig, PhD, PE, CPE

Dean of Engineering Charles and Eleanor Garrett Endowed Chair Director, Maritime Safety Research Initiative University Scholar Lamar University College of Engineering 2000 Cherry Engineering Building Beaumont, Texas 77710 Office: (409) 880 – 8741 Mobile: (409) 782 – 6989 Fax: (409) 880 – 8121 Email: brian.craig@lamar.edu

#### Experience

#### Academic Experience

- Dean of Engineering, Charles and Eleanor Garrett Endowed Chair, College of Engineering, Lamar University, Beaumont, Texas, July 2019 Present
- Professor and Chair, Department of Industrial Engineering, Lamar University, Beaumont, Texas, September 2012 June 2019
- Professor and Interim Chair, Department of Industrial Engineering, Lamar University, Beaumont, Texas, September 2011 August 2012
- Associate Professor and Interim Chair, Department of Industrial Engineering, Lamar University, Beaumont, Texas, September 2010 – August 2011
- Associate Professor, Department of Industrial Engineering, Lamar University, Beaumont, Texas, September 2005 August 2011
- Assistant Professor, Department of Industrial Engineering, Lamar University, Beaumont, Texas, January 2001 August 2005

#### Departmental/Center/Initiative Leadership

- Over the past five years, the College of Engineering (since July 2019) and the Department of Industrial Engineering (until June 2019) at Lamar University has achieved the following milestones:
  - Established the Emerson Advanced Technology Center (spring 2021). The first industry named space in Lamar University's College of Engineering.
  - With the leadership of Lamar University's President, Dr. Kenneth Evans, established the Center for Midstream Management and Science (CMMS), Lamar University, Beaumont, Texas, September 2019 September 2020

(initially funded by special item – State of Texas for \$1.9M, September 1, 2019 – August 31, 2021)

- Serve as Director, TEES Regional Director for Lamar University (September 2019 present)
- With the leadership of Lamar University's President, Dr. Kenneth Evans, established the Center for Advances in Port Management (CAPM), Lamar University, Beaumont, Texas (initially funded by special item State of Texas for \$2.72M, September 1, 2015 August 31, 2017), Interim Director (September 2014 June 2016), Associate Director for Research (July 2016 August 2017), and Associate Director (January 2018 August 2019): B. Craig
- Established the Maritime Safety Research Initiative (MSRI), Department of Industrial Engineering, Lamar University, Beaumont, Texas, August 2008 – Present (total funding > \$1.4M), Director: B. Craig
- Proposed Lamar University/Emerson Center of Excellence in Operational Certainty, resulting in a \$200,000 cash gift thus far (2017 – present)
- Led the BSIE program ABET re-accreditation, resulting in no shortcomings in 2012 and 2018.
- Developed and began offering the first Bachelor of Science in Industrial Engineering (BSIE) 2+2 online degree program option in the US in 2014 and graduated our first students in 2016. The BSIE online option was ranked #1 in 2019 for "2019 Best Online Colleges Offering Bachelor's in Engineering Degrees" in the US by the SR Education Group (https://www.guidetoonlineschools.com/degrees/engineering?utm\_source=IMA P&utm\_medium=email#best-value), the BSIE online option was noted as a <u>strength</u> during the 2018 ABET re-accreditation visit and ranked #9 for most affordable online engineering degree bachelors programs by the Bachelor's Degree Center for 2020 <u>https://www.bachelorsdegreecenter.org/mostaffordable-engineering-schools/</u>.
- Introduced a new Masters of Engineering Management (MEM) online option in 2014
- Full time IE faculty has grown from 6 to peak of 13; 11 in 2019
- Continued to provide a growing 100% online Bachelor of Science in Industrial Technology (BSIT) degree
- Industrial Engineering Department student enrollment has increased from ~330 in 2012 to ~500 in 2015 and remains over 350 despite an extremely challenging graduate student decline.
- For the first time in 18 years, Lamar University, Department of Industrial Engineering hosted the Institute of Industrial and Systems Engineering Student Regional (South Central Region) Conference, February – March 2019.

#### Work Experience

- Owner, Harmonic Work Science, Safety, Human Factors and Ergonomic Consulting, Beaumont, Texas, August 2001 Present
  - Human Factors, Ergonomics and Safety Engineering Expert Witnessing (27 cases) (2006 present)
  - Literature Review Benefits of Sit-Stand Workstations, Altec Industries, Inc., Birmingham, Alabama (2016)

- Safety Assessment, Southern Avionics, Beaumont, Texas (2013 2014)
- Office and Control Room Ergonomic Assessment, Veolia Environmental Services, Port Arthur, Texas (2012 – 2013)
- *Ergonomic Assessment,* American Valve and Hydrant, Beaumont, Texas (2012)
- Development Maintenance and Materials Handling sections of *Ergonomics Guide*, American Bureau of Shipping, Houston, Texas (2011 – 2012)
- Review of *Guidance Notes of Human Factors Engineering into the Design of Offshore Installations,* American Bureau of Shipping, Houston, Texas (2011)
- Development of *Human Factors and Ergonomics Toolbox Talks,* American Bureau of Shipping, Houston, Texas (2010)
- Review of Human Factors, Ergonomics and Bridge Resource Management Activities of Various Class Societies, American Bureau of Shipping, Houston, Texas (2009 – 2010)
- Technical Editor of *Introduction to Human Error* Two-Day Training Course, ABS Academy, American Bureau of Shipping, Houston, Texas (2009)
- Development of the Ambient and Environmental Guidance Note, American Bureau of Shipping, Houston, Texas (2008 – 2010)
- Development of the Human Factors Engineering Toolkit, American Bureau of Shipping, Houston, Texas (2008 – 2010)
- Development of the Crew Habitability One-Day Training Course, ABS Academy, American Bureau of Shipping, Houston, Texas (2008)
- o Office Ergonomics Evaluation, Nalco, Beaumont, Texas (2007)
- Human Performance in Inspection, American Bureau of Shipping, Houston, Texas (2006 – 2007)
- o Forward Functional Reach, Altec Industries, Inc., Birmingham, Alabama (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 to tanks and holds for Inspection,* 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)
- Potroom Supervisor/Vacation Relief Shift Coordinator/Ergonomics Committee Leader, Tennessee Operations, Alcoa Inc., Alcoa, Tennessee, August 1998 – January 2001
- Ergonomics and Safety Specialist, Primary Metals Division, Alcoa Inc., Knoxville, Tennessee, September 1997 August 1998
- Ergonomic Consultant, Compaq Computer Corporation, Corporate Safety and Health, Houston, Texas, June 1997 August 1997
- Wellness Program Instructor, Ergonomics and Physical Stressors, United States Department of Agriculture, Food Safety and Inspection Service, College Station, Texas, March 1997 – August 1997
- Ergonomic Internship, Compaq Computer Corporation, Corporate Safety and Health, Houston, Texas, December 1996 May 1997
- Ergonomic Consultant, Pathway Industries, Bryan, Texas, August 1996 August 1997
- Ergonomic Consultant, Browning Ferris Industries, Houston, Texas, August 1996 December 1996
- Ergonomic Research Associate, Texas A&M University, National Science Foundation Industry/University Cooperative Research Center in Ergonomics, College Station, Texas, November 1995 – August 1997
- Industrial Engineering Internship, United Parcel Service, Corporate Industrial Engineering, Atlanta, Georgia, November 1994 – October 1995
- Ergonomic Consultant, Pathway Industries, Bryan, Texas, October 1992 October 1994
- Ergonomic Consultant, Capital Anesthesiology Association, Austin, Texas, September 1993 November 1993

# Education/Training

# Education

- PhD, Interdisciplinary Engineering, Texas A&M University, College Station, TX, 2000 Major Field: Human Factors Engineering, Ergonomics, and Safety Engineering Minor Field: 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*. Committee Chair: Jerome J. Congleton, PhD, PE, CPE
- MS, Industrial Engineering, Texas A&M University, College Station, TX, 1995 Major Field: Human Factors Engineering, Ergonomics, and Safety Engineering Minor Fields: Physiology and Engineering Management. Thesis: Correlation of Injury Occurrence Data with Estimated Maximal Aerobic Capacity and Body Composition in a High-Frequency Manual Materials Handling Task. Committee Chair: Jerome J. Congleton, PhD, PE, CPE
- BS, Industrial Engineering, Texas A&M University, College Station, TX, 1992

• BS, Bioengineering, Texas A&M University, College Station, TX, 1990

# Training

- Midstream Engineering Three-day Course (24 hours), GPA Midstream Association, Lamar University, Beaumont, Texas, November 2020
- Ethics Professional Development (1 hour), Texas Board of Professional Engineers and Land Surveys, Beaumont, TX (online), August 2020
- 2020 Hurricane Season in a Pandemic, Center for Advances in Port Management, Lamar University, Beaumont, Texas, June 2020
- Port Emergency Response Planning Workshop, Center for Advances in Port Management, Lamar University, Beaumont, Texas, April 2018
- Second Annual Symposium Resilient Port and Transportation Infrastructure in 2020, Center for Advances in Port Management, Lamar University, Beaumont, Texas, April 2018
- Port and Marine Terminal Physical Security: Key Issues and Trends, Including Regulation, Technology, and Workforce Development, Center for Advances in Port Management, Lamar University, Beaumont, Texas, March 2018
- Risk Analysis Workshop, Center for Advances in Port Management, Lamar University, Beaumont, Texas, February 2018
- Planning for the Next Disaster, Center for Advances in Port Management, Lamar University, Beaumont, Texas, December 2017
- INFORMS Academic Leadership Workshop, October 2017
- PEV Pre-visit Preparation Proficiency Assessment, ABET, October 2017
- Training for Accreditation Visits Outside the United States, ABET, October 2017
- TBPE-Professional Engineering Practice Update/Ethics, Texas Board of Professional Engineers, Webinar, December 2016
- Dredging your Docks 2015, Beaumont, TX, December 2015
- Completed Brownwater University, Houston, TX, September 2015
- PEV Pre-visit Preparation Proficiency Assessment, ABET, September 2015
- The National Society of Professional Engineers Code of Ethics, Received at the Southeast Texas International Society for Automation Expo, Beaumont, TX, October 2014
- PEV Pre-visit Preparation Proficiency Assessment, ABET, October 2013
- The National Society of Professional Engineers Code of Ethics, College of Engineering, Lamar University, Beaumont, Texas, May 2013
- Disability Compliance Training, Center for Teaching and Learning Enhancement, Lamar University, Beaumont, Texas, April 2013
- The National Society of Professional Engineers Code of Ethics, Department of Continuing Education, Lamar University, Beaumont, Texas, May 2012
- Program Evaluator JIT Checks for Understanding, Accreditation Board of Engineering and Technology (ABET), October 2011
- The National Society of Professional Engineers Code of Ethics, Department of Continuing Education, Lamar University, Beaumont, TX, October 2011
- Program Evaluator Refresher Training, Accreditation Board of Engineering and Technology (ABET), May 2011

- The National Society of Professional Engineers Code of Ethics, Department of Continuing Education, Lamar University, Beaumont, Texas, October 2010
- Program Evaluator Training Program Observer, Accreditation Board of Engineering and Technology (ABET), Tempe, Arizona, November 2009
- Program Evaluator Training, Accreditation Board of Engineering and Technology (ABET), Baltimore, Maryland, May 2009
- The National Society of Professional Engineers Code of Ethics, Department of Continuing Education, Lamar University, Beaumont, Texas, March 2009
- Engineering Ethics, Department of Continuing Education, Lamar University, Beaumont, Texas, June 2008
- Faculty Workshop on Accessing Program Outcomes Accreditation Board of Engineering and Technology (ABET), Phoenix, Arizona, January 2007
- A Human Factors Approach to Accident Analysis and Prevention, All-Day Workshop, Denver, Colorado, October 2003
- OSHA Strategic Initiative and OSHA Recordkeeping Training, Beaumont, Texas, January 2002
- Alcoa Production System Training, Alcoa, Tennessee, May 2000
- Supervisor Training Core Skills for Building Commitment and Preparing Others to Succeed, Alcoa, Tennessee, December 1999
- Supervisor Training Potroom Process Training, Alcoa, Tennessee, May 1999
- Supervisor Training Labor Relations, Alcoa, Tennessee, March 1999
- Supervisor Training Handling Difficult Situations as a Supervisor through Both Positive and Negative Reinforcement, Alcoa, Tennessee, December 1998
- Supervisor Training Potroom Process Training, Alcoa, Tennessee, November 1998
- Alcoa Production System Training, Charlotte, North Carolina, April 1998
- Environmental Health and Safety Workshop, Atlanta, Georgia, April 1998
- Health and Safety Management System, Pittsburgh, Pennsylvania, April 1998
- Health and Safety Auditor Training, Addy, Washington, March 1998

# Teaching

#### Graduate Committees

- Committee Chair for the following Doctoral Dissertations
  - The Analysis and Classification of Near Miss Data in the Maritime Industry, Including the Use of Text Mining Software (2010 2014)
  - Safety Culture Data Analysis Methods (2010 DNF)
  - Analysis of Safety Culture in the Maritime Industry (2008 2011)
- Committee Chair/Co-Chair for the following Master's Theses
  - Cleaning Safety Records Using Text Mining Algorithms (2011 2012) (Co-Chair)
  - 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 Doctoral Dissertation
  - Quantifying and Predicting Waterway Traffic Conditions: A Case Study of the Houston Ship Channel (2018 present)
  - Big Data-Based Exploration of Contributing Factors to Traffic Accidents in Southeast Texas and an Experimental Validation (2016 Present)
  - The Use of Near Misses in the Maritime Industry; Focusing on Cranes (2015 2018)
  - Cleaning Large Data Sets by Coordinating Machine Learning and Manual Approach (2015 Present)
  - Knowledge-Base Application for Recommending Similar Safety Incidents in Large Datasets (2015 Present)
  - An Analysis of Workers' Attitudes Toward Safety Culture in the Maritime Industry (2013 2016)
  - An Analysis of Workers' Attitudes Towards Safety Culture in the Maritime Industry (2012 2016)
  - Using Natural Language Generation to Document Portfolio Performance: An Optimization Approach for Content (2012 2014)
  - Inventory Metrics for Lead Time Focused Manufacturing (2011 2013)
- Committee Member for the following Master's Theses
  - Evaluation of Holographic Heads-up Display to Enhance Driving Safety (2017 2018)
  - The Effect of Smartphone Screen Size on Usability and Users' Discomfort (2017 2018)
  - The Effect of Background Music on Cognitive Task Performance (2016 2017)
  - EMG Analysis of Muscle Pump and Associated Lower Extremity Volume Change in Humans for Various Activities (2016 2017)
  - Study With Fun: Development of a Game-based and Haptically Enhanced Application (2016 2017)
  - Text Classification and Cleaning of Near Miss Records (2016 2017)
  - An Analysis of Workers' Attitudes Toward Safety Culture in the Maritime Industry (2014 2016)
  - Using Python to Analyzing Safety Records (2013 2015)
  - Classifying Maritime Near-Miss and Injury Reports Using Text Mining (2011 2012)
  - Cleaning Safety Records Using Text Mining Algorithms (2011 2012)
  - Analysis of Leading Safety Indicators in the Maritime Industry (2008 2011)
  - Estimation of the Probability of Occurrence of "Events" that Could Disrupt Operations on the Sabine – Neches Waterway by the Delphi Method (2006)
- 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)

- Committee Co-Chair for the following McNair Thesis, *Psychosocial Risk Factors Related to Back Injury in the Material Handling Industry* (2011)
- Committee Member/Chair 79 ME/MEM students

#### Courses Taught

- Occupational Ergonomics (undergraduate and graduate; face-to face)
- Human Factors Engineering (undergraduate and graduate; face-to-face)
- Methods, Standards, and Work Design (undergraduate; face-to-face)
- Industrial and Product Safety (undergraduate and graduate; face-to-face/online)
- Production and Inventory Control (undergraduate and graduate; face-to-face)
- Production and Inventory Systems (undergraduate; face-to-face)
- Introduction to Industrial Engineering (undergraduate; face-to-face)
- Introduction to Port Management (graduate; hybrid)
- Special Topics: Advances in Safety Engineering (undergraduate; online)
- Special Topics: Ergonomics Research (graduate; face-to-face)
- Special Topics: Ergonomic Instrumentation (graduate; face-to-face)
- Special Topics: Office and Industrial Ergonomics (graduate; face-to-face)
- Special Topics: Maritime Ergonomics (graduate; face-to-face)
- Special Topics: Semiconductor Ergonomics (graduate; face-to-face)
- Special Topics: Probability of Detection in Visual Inspection (graduate; face-to-face)
- Special Topics: Off-The-Job Injuries (undergraduate; face-to-face)
- Undergraduate Honors Thesis (undergraduate)
- Undergraduate McNair Thesis (undergraduate)

# **Research Interests**

Human factors, ergonomics, and safety engineering. Leading safety indicators, safety culture, injury/illness causation/reduction, close calls (near misses), maritime, offshore

# Grants/Contracts/Projects

- Forecasting Pilot Demand and Optimizing Vessel Schedule at the Houston Ship Channel, Houston Pilots, \$100,000, Submitted June 2020 – May 2022. M. Hamidi – Principal Investigator with Co-PI: B. Craig. Under review.
- A Railyard Management Optimization Software: Iron Horse Terminal Application, Iron Horse Terminals, \$52,000, Awarded January 2020 – December 2020. M. Hamidi – Principal Investigator with Co-PI: **B. Craig**
- Gulf Research Program, National Academies of Sciences, Engineering, and Medicine, Safer Offshore Energy Systems Grants 4, Washington, DC, Development of a Framework and Roadmap for an Effective Near-miss and Incident Reporting System, B. Craig – Project Director (PI) with Key Personnel: K. McSweeney, J. Curry, W. Zhu, J. Pray, M. Hamidi, Y. Li and K. Das. Submitted April, 2019 for January 2020 – August 2022. Budget Requested \$1,908,670. Lamar

University lead with the American Bureau of Shipping and University of Houston subawards. Not awarded, October 2019.

- Gulf Research Program, National Academies of Sciences, Engineering, and Medicine, Safer Offshore Energy Systems Grants 4, Washington, DC, *Developing an Integrated Offshore Energy Industry Safety Culture Evaluation and Improvement Toolbox*, K. McSweeney – Project Director (PI) with Key Personnel: S. Arendt, **B. Craig**, J. Curry, W. Zhu, and J. Pray. Submitted April, 2019 for January 2020 – August 2022. Total Budget Requested \$1,439,830. Lamar University's Budget \$229,059. With the American Bureau of Shipping (Lead Organization). Funded, January 2020.
- Gulf Research Program, National Academies of Sciences, Engineering, and Medicine, Safer Offshore Energy Systems Grants 4, Washington, DC, Letter of Intent for *Integrated Approach for Offshore Energy HSE Performance Assurance*, S. Arendt – Project Director (PI) with Key Personnel: K. McSweeney, **B. Craig**, and M. Mower. Submitted April, 2019 for January 2020 – December 2020. Total Budget Requested \$651,904. Lamar University's Budget Request \$70,249. With the American Bureau of Shipping (Lead Organization). Not awarded, October 2019.
- Proposal for Science and Technology Building Space Allocation, Lamar University, Beaumont, Texas, **B. Craig** – Principal Investigator with Co-PI's: X. Liu, and H. Zargarzadeh (Summer 2018 – Spring 2019). Not awarded.
- Offloading Ship Terminal: Containers on, Containers Off Platform Exploratory Animation, feasibility study, **B. Craig** – Principal Investigator with Co-Pl's: M. Hamidi, and X. Liu (Spring 2018 – Present)
- American Bureau of Shipping/US Department of Transportation Maritime Administration (MARAD)/Lamar University, *Near Miss/Injury Databases*, Houston, Texas/Washington DC, **B. Craig** – Principal Investigator with Co-PI's: J. Curry, and W. Zhu (Summer 2018 – Present). Included in the Mariner Safety Program.
- Safety Culture Assessment, American Bureau of Shipping, Houston, Texas, B.
  Craig Principal Investigator with Co-PI's: J. Curry, and W. Zhu (Summer 2018 Present). Included in the Safety Culture/Leading Indicators of Safety Project.
- American Bureau of Shipping/American Club/Lamar University Mariner Safety Initiative, Houston, Texas/New York, New York, B. Craig – Principal Investigator with Co-Pl's: J. Curry, and W. Zhu (Summer 2018 – Present). Included in the Mariner Safety Program.
- Prototype Leading Indicator Tool (PROLIT)/Offshore Safety Culture and Leading Indicators of Safety (OSCAR), American Bureau of Shipping, Houston, Texas, B. Craig – Principal Investigator with Co-PI's: J. Curry, and W. Zhu (Fall 2010 – Present) \$494,599.
- Mariner Safety Program (formerly Mariner Personal Safety), American Bureau of Shipping, Houston, Texas, **B. Craig** – Principal Investigator with Co-PI's: J. Curry, and W. Zhu (Fall 2009 – Present) \$576,882.
- Proposal for Joint Safety Performance Benchmarking/Best Practices Initiative, for the Petroleum Equipment & Services Association (PESA), Lamar University (Subaward), **B. Craig** – Principle Investigator with Co-PI's: J. Curry and W. Zhu. Submitted Spring 2018; Proposed Effective Dates 2018 – 2021, Total Budget Request \$149,600; Lamar University's Budget Request \$44,888. With the American Bureau of Shipping (Lead Organization). Not funded.

- Proposal for ABS Safety Culture Assessment Services for <Industry Partner>, Lamar University (Subaward), B. Craig – Principle Investigator with Co-PI's: J. Curry and W. Zhu. Submitted Fall 2017; Proposed Effective Dates 2017 – 2019, Total Budget Request \$353,030; Lamar University's Budget Request \$99,000. With the American Bureau of Shipping (Lead Organization). Not funded.
- Gulf Research Program, National Academies of Science, *Mitigation of Offshore Drilling Risk via Data Fusion-based Reliability Modeling and Risk-based Predictive Maintenance Decision Making*, Y. Xiang – Principle Investigator with Co-PIs: Q. Feng, M. Li, D. Coit, and **B. Craig** (Fall 2017 – Summer 2020), Budget Request \$937,082. Not Funded.
- Development of the ASTM Guide for Recording and Reporting of Injuries and Illnesses for Maritime Industry, the Maritime Administration (MARAD) and the Ship Operations Cooperative Program (SOCP), **B. Craig** – Principal Investigator with Co-PI's: J. Curry, W. Zhu (2015 – 2017) \$15,000 (part of the Mariner Safety Program).
- Development of the ASTM Guide for Reporting and Recording of Near-Misses for Maritime Industry, the Maritime Administration (MARAD) and the Ship Operations Cooperative Program (SOCP), **B. Craig** – Principal Investigator with Co-Pl's: J. Curry, W. Zhu (2015 – 2017) \$15,000 (part of the Mariner Safety Program).
- Industrial and Mechanical Engineering Scholars with Scholarships, Career Mentoring, Outreach and Advisement, Professional Societies and Engineering Learning Community (SCOPE), National Science Foundation (NSF), W. Zhu – Principal Investigator with Co-PI's J. Curry, H. Chu, **B. Craig**, J. Zhou (Fall 2015 – Summer 2020) \$625,300.
- IUSE/PFE: RED, Professional Education for Opportunities and Planetary Leadership in Engineering (PEOPLE), National Science Foundation (NSF), S. Palanki – Principal Investigator with Co-PI's L. Hasselbach, **B. Craig**, H. Chu, and senior personnel J. Curry, N. Brake, S. Shoefstall, K. Hinerman, N. Delatte (Fall 2017 – Summer 2022), Budget Requested \$1,893,744. Not funded.
- Proposal for Conducting a Safety Culture Improvement Process Evaluation, Lamar University (Subaward) B. Craig – Principle Investigator with Co-PI's: J. Curry and W. Zhu. Submitted Summer 2016; Proposed Effective Dates 2016 – 2017, Total Budget Request \$345,430; Lamar University's Budget Request \$77,656. With the American Bureau of Shipping Group Consulting, Inc. (Lead Organization), not funded.
- Center for Seaport Resilience Research, Development, and Education (C-SRDE), U.S. Department of Transportation, University Transportation Center, Tier One, Lamar University (Subaward) B. Craig – Principal Investigator with 20 Lamar University Co-PIs, Submitted Spring 2016; Proposed Effective Dates 2017 – 2022, Year 1 Budget Request: \$350,791 from Sponsor, \$176,876 from Lamar University, Center for Advances in Port Management Matching Funds. With University of Memphis (Lead Institution), Principal Investigator, M. Golias, Stevens Institute of Technology (Subaward), Tuskegee University (Subaward), West Kentucky Community and Technical College (Subaward), Florida A&M University (Subaward), and Missouri University of Science and Technology (Subaward), not funded.
- *MRI: Development of a Hybrid Brain-Computer Interface-based Rehabilitation System*, National Science Foundation (NSF), Y. Li – Principal Investigator with Co-

PI's J. **B. Craig**, W. Zhu (Fall 2015 – Summer 2018), Budget Request \$237,856, not funded.

- University Scholar Research Enhancement Grant, Lamar University, **B. Craig** Principal Investigator (Fall 2014 Summer 2016) \$5,000.
- Preliminary Bridge/Rail Assessment, Port of Beaumont, M. Safa Principal Investigator with Co-PI B. Craig (Fall 2015).
- Safety Culture Assessment, American Bureau of Shipping, Houston, Texas, B.
  Craig Principal Investigator with Co-PI's: J. Curry, W. Zhu (Summer 2012 Fall 2013).
- Determination of Ladder Rung Design for Fixed Vertical Ladders in Maritime Environments – Research Enhancement Grant, Lamar University, B. Craig – Principal Investigator (Fall 2010 – Spring 2011) \$5,000.
- Leading Safety Indicators and Safety Culture Audit in the Maritime Industry, American Bureau of Shipping, Houston, Texas, **B. Craig** – Principal Investigator with Co-PI: K. Das (Spring 2008 – Fall 2011) \$169,914.
- Online Education Initiative: Course Development Grant for INEN 3300, Introduction to Industrial Engineering, Lamar University, **B. Craig** – Instructor (January 2009 – December 2009) \$1,000.
- The Implementation of Human Factors Engineering in to the Design of Offshore Installations, American Bureau of Shipping, Houston, Texas, **B. Craig** – Principal Investigator (Spring 2008) \$4,429.
- Analysis of Habitability Measurements on Offshore Supply Vessels for Offshore Supply Vessels, American Bureau of Shipping, Houston, Texas, **B. Craig** – Principal Investigator (Spring 2007) \$1,500.
- Secondary Analysis of Low Back Pain Risk Factor Data in the Manual Materials Handling Industry – Research Enhancement Grant, Lamar University, **B. Craig** – Principal Investigator (Fall 2005 – Spring 2006) \$5,000.
- Controller Dynamics, Altec Industries, Birmingham, Alabama, B. Craig Principal Investigator, (Fall 2004 – Spring 2005) \$18,906.
- Effect of Cooling Suits (Race Suits) on Task Performance in Hot Environments for the Power Industry, Altec Industries, Birmingham, Alabama, **B. Craig** Principal Investigator, Master's Thesis Committee Chair, (Summer Fall 2004) \$20,969.
- Analytic Assessment of the Effect of Varying Sea Conditions on Navigational Bridge Crew, American Bureau of Shipping, Houston, Texas, B. Craig – Principal Investigator, Master's Thesis Committee Chair, (Summer – Fall 2003) \$33,298
- *Ergonomic Solutions in the Semi-Conductor Industry*, Texas Instruments, Inc., Dallas, Texas, **B. Craig** Principal Investigator (Spring 2003) \$46,786.
- Analytic Assessment of the Effect of Fatigue on Task Performance of Mariners, American Bureau of Shipping, Houston, Texas, **B. Craig** – Principal Investigator, Master's Thesis Committee Chair, (Fall 2002) \$19,795.
- Ergonomic Design Applications in the Semi-Conductor Industry, Texas Instruments, Inc., Dallas, Texas, B. Craig – Principal Investigator (Summer 2002 – Fall 2002) \$27,379.
- Development of X-ray Fluorescence (XRF) Technology for Characterizing Metal Capture Efficiency of Various Sorbents, Texas Hazardous Waste Research Center, Beaumont, Texas, **B. Craig** – Principal Investigator with three Co-PIs (Fall 2002 – Summer 2005) \$58,022.

- Revision of the ABS Guidance Notes for the Application of Ergonomics to Marine Systems, American Bureau of Shipping, Houston, Texas, **B. Craig** Principal Investigator (Fall 2002 Spring 2003) \$13,000.
- 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, B. Craig – Principal Investigator (Summer 2002) \$9,500.
- 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, **B. Craig** Principal Investigator (Spring 2002) \$2,500.
- 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, B. Craig – Principal Investigator (Summer 2002 – Summer 2004) \$49,255.
- 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, **B. Craig** Principal Investigator (Fall 2001) \$1,305.
- 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, **B. Craig** – Principal Investigator (Fall 2001) \$1,895.
- 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, B. Craig – Principal Investigator (Fall 2001) \$4,275
- Evaluation and Analysis of Buttock-Thigh Pressures Associated with Four Different Ergonomic Chair Models: A Field Study – Neutral Posture, Inc., Bryan, Texas, B.
   Craig – Principal Investigator (Summer 2001) \$8,685
- Manual Materials Handling Field Studies National Science Foundation Industry/University Cooperative Research Center in Ergonomics at Texas A&M University, Investigative Team Leader (1996 – 2000) \$126,000
- 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) \$102,000

# **Publications and Presentations**

# Peer Reviewed Journal Publications

- Cho, J., **Craig, B**., Hur, M., and Lim, J. A Novel Port Call Optimization Framework: A Case Study of Chemical Tanker Operations, *International Journal of Production Economics*, submitted, August 2020.
- Hamidi, M., Zohoori, S., Kang, M., and **Craig, B**. An AIS-based Waterway Traffic Performance Analysis: A Case Study of Houston Ship Channel, *Transportation*

*Research Part E: Logistics and Transportation Review*, Manuscript Number TRE\_2020\_504, submitted, September 2020.

- Hamidi, M., Craig, B, Kang, M., and Zohoori, S. Using Automated Identification Systems (AIS) Data to Quantify Narrow Waterways Congestion: A Case Study of Houston Ship Channel, *Transportation Research Part E: Logistics and Transportation Review*, Manuscript Number TRE\_2020\_504, submitted, March 2020.
- Wu, X., Hamidi, M., Roy, U., and Craig, B. Estimated travel time of ships in narrow channel based on AIS data, *Ocean Engineering*, DOI: <u>10.1016/j.oceaneng.2019.106790</u>, March 2020.
- Rahimi, B., Hamidi, M., Mohassel, A., and **Craig, B**. (2020) Imperfect conditionbased maintenance strategy for a deteriorating rail track system with multiple competitive failure modes. Transportation Engineering, Part A: Systems, 146(9), 04020088..
- Li, G., Li, Y., Liu, X and **Craig. B.** Exploring the Effect of Weather, Lighting and Traffic Density on Driving Performance: A Simulator-Based Study, *Transportation Research Part F*, under review May 2020.
- Mahesh, V., Li, Y. and **Craig, B**. EMG Analysis of Muscle Pump and Associated Lower Extremity Volume Change in Humans for Various Activities, *Applied Ergonomics*, final draft May 2020.
- Li, G., Li, Y, **Craig, B.** and Wu, X. Big Data-Based Exploration of Risk Factors to Traffic Crashes Severity in US Using Southeast Texas as an Example, *Accident Analysis and Prevention*, under revision, November 2019.
- Kaneria, A., Hamidi, M., Zhu, W. and **Craig, B.** (2019) Traffic simulation of Houston Ship Channel for assessing the impact of waterway closures on vessel waiting time. *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 145(4), p.04019014.
- Craig, B., Curry, J., Marquez, A., Rahman, M., Turpin, L., and Underdown, R. (2018). An optimization approach for content determination in a performance attribution report. *Journal of Performance Measurement*, 22(3), 25-36.
- Papillion, R., **Craig, B**., Curry, J., and Zhu, W., Near Miss Reporting Programs in the Maritime Industry". *Journal of Safety Research*, Submitted June 2017
- Wu, X., Mehta, A., Zaloom, V. and Craig, B. Analysis of Waterway Transportation in Southeast Texas Waterways Based on AIS Data. *Ocean Engineering*, 121, pp. 196-209, May 2016
- **Craig, B.,** Congleton, J., Beier, E., Kerk, C., Amendola, A., and Gaines, W., Occupational Risk Factors and Back Injury. *International Journal of Occupational Safety and Ergonomics*, 19(3), 2013
- McSweeney, K., **Craig, B.,** Curry, J., and Zhu, W. Are Mariner Near Misses Influencing Design? *Transportation Research Record*, Journal of the Transportation Research Board, No. 2326, Washington, DC, 2013
- **Craig, B.,** Near Miss Reporting: Challenges and Obstacles to a Robust Near Miss Reporting System. *Marine Technology,* The Society of Naval Architects and Marine Engineers, Jersey City, New Jersey, April 2012
- Furtado, A., **Craig, B.,** Chard, J., Zaloom, V., and Chu, H. Cooling Suits, Physiological Response, and Task Performance in Hot Environments for the Power

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- **Craig, B.,** 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
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- 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
- Bales, D. W., **Craig, B.,** 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<sup>c</sup>Sweeney, K. P., Congleton, J. J., Kerk, C. J., Jenkins, O. E., and **Craig, B.,** Correlation of Recorded Injury and Illness Data with Smoking, and Absolute Aerobic Capacity. *International Journal of Industrial Ergonomics*, 24(2), May 1999
- **Craig, B.,** Congleton, J. J., Kerk, C. J., Lawler, J. M., and M<sup>c</sup>Sweeney, 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

#### Peer Reviewed Conference Publications

- Liu Y., Li Y., Craig B. (2020) Estimation of Forearm, Deltoid, and Trapezius Muscle Activities Due to Overuse of Smartphone with and Without Armrest. In: Karwowski W., Goonetilleke R., Xiong S., Goossens R., Murata A. (eds) Advances in Physical, Social & Occupational Ergonomics. 185-191. AHFE 2020. Advances in Intelligent Systems and Computing, vol 1215. Springer, Cham.
- Abbasi E., Morbale P., Gubbala S.S., Li Y., Craig B. (2020) An Investigation in Muscle Activity of Student's Neck and Back in Various University Rooms. In: Karwowski W., Goonetilleke R., Xiong S., Goossens R., Murata A. (eds) Advances in Physical, Social & Occupational Ergonomics. 102-108. AHFE 2020. Advances in Intelligent Systems and Computing, vol 1215. Springer, Cham.
- Li, Y., Kaneria, A., Qian, C., and **Craig, B.** (2019). Learning Drivers' Behavior from Social Networking. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 1792-1796.
- Zhu, W., Curry, J., **Craig, B**., Zhou, J., Chu, H., and Yoo, J., Impact of Awarding Scholarships to Current Students, *Proceedings of the 2019 American Society of Engineering Education 126th Annual Conference and Exposition,* June 2019
- Paul, N., Fnu, M., Julapally, S., Li, Y., and Craig, B., Analysis of muscular fatigue and foot discomfort while wearing different types of men's formal shoes, *Proceedings of International Conference on Applied Human Factors and Ergonomics. Advances in Physical Ergonomics & Human Factors,* <u>https://doi.org/10.1007/978-3-319-94484-5\_43</u>. July 2018

- Li, G., Li, Y., and Craig, B., A Systematic Review of Musculoskeletal Disorders (MSDs) Among Port Workers, *Proceedings of International Conference on Applied Human Factors and Ergonomics. Advances in Social and Occupational Ergonomics*, <u>https://doi.org/10.1007/978-3-319-94000-7\_21</u>. July 2018
- Thapa, K., Kang, M., Hamidi, M., Zhu, W., and **Craig, B**., A Sustainable Seaport Warehouse Storage Assignment: A Port of Beaumont Case Study, *Proceedings of the 2018 Institute of Industrial and Systems Engineering Annual Conference*. May 2018
- Zhu, W., Curry, J., **Craig, B**., Zhou, J., Chu, H., and Yoo, J., SCOPE STEM Scholarship Program for Industrial and Mechanical Engineering Students, *Proceedings of the 2018 Institute of Industrial and Systems Engineering Annual Conference*. May 2018
- Syed, U., Patil, M., Li, Y., & **Craig, B.** (2017). Ergonomics Evaluation of a Manual Braking System for Skateboards. In *Proceedings of International Conference on Applied Human Factors and Ergonomics*, 157-164.
- Yesodha, K., Narasimhan, V., Li, Y., & **Craig, B.** (2017). Ergonomic Evaluation of Videogame Controllers. In *Proceedings of International Conference on Applied Human Factors and Ergonomics*, 384-391.
- Mahesh, V., Li, Y., and **Craig, B.** (2017). Effect of walking, running and gradients on muscle pump and edema. In *Proceedings of International Conference on Applied Human Factors and Ergonomics*, 335-342.
- Mahesh, V., Li, Y., & **Craig, B.** (2017). Effect of flooring on lower extremity discomfort during food service tray-line jobs. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 950-954.
- Akurke, S., Li, Y., & **Craig, B.** (2017). Effect of smart phone use on upper extremity and neck. In *Proceedings of International Conference on Applied Human Factors and Ergonomics*, 241-249.
- Zhu, W., Craig, B., Chu, H., Curry, J., and Zhou, J., Industrial and Mechanical Engineering Scholars with Scholarships, Career Mentoring, Outreach and Advisement, Professional Societies and Engineering Learning Community (SCOPE) S-STEM Program, *Proceedings of the 2017 American Society of Engineering Education 124<sup>th</sup> Annual Conference and Exposition*, Columbus, OH, June 2017
- Shi, Y., Xiang, Y., and **Craig, B.,** Condition-based maintenance for deteriorating transportation infrastructures, *Proceedings of the 2017 Institute of Industrial and Systems Engineering Annual Conference*. May 2017
- Safa, M. and **Craig, B.**, Maritime and Port Activity Analysis Tool. Advances in Human Aspects of Transportation (Proceedings of the 7<sup>th</sup> International Conference on Human Factors), Orlando, Florida, January 2017
- Tomlinson, C., **Craig, B.,** and McSweeney, K. The ABS Approach to Selfassessing Safety Culture in Maritime Organizations. *Proceedings of the Royal Institution of Naval Architects (RINA) International Conference on Human Factors in Ship Design and Operations*, London, England, September 2016
- Ilori, A., Li, Y., Mahesh, V., and **Craig, B.** (2016). Effect of position: an ergonomics evaluation of police wearable equipment. In M. Soares, C. Falcao, T. Ahram, (Eds): *Advances in Ergonomics Modeling, Usability and Special Populations*, 199-207.

- Curry, J., and **Craig, B.,** Zhu, W., An Online 2+2 Bachelor's Degree Program Track in Industrial Engineering at Lamar University, *Proceedings of the 2016 American Society of Engineering Education 123<sup>rd</sup> Annual Conference and Exposition*, New Orleans, Louisiana, June 2016
- Kulibaba, N., Xiang, Y., Curry, J., and **Craig, B.,** Joint Condition-based Maintenance and Spare Parts Provisioning for a Two-echelon Network, *Proceedings of the 2016 Industrial Engineering Research Conference*, Anaheim, California, May 2016
- Zhu, W., Jiang, G., and **Craig, B.,** Online Simulation Course and "Arena Video Tutor" Mobile App Development, *Proceedings of the 2016 Industrial Engineering Research Conference*, Anaheim, California, May 2016
- Craig, B., Curry, J., Zhu, W., McSweeney, K., and Papillon, R., Reporting Practices for Near Miss Reporting Systems, Proceedings of the 2014 Offshore Technology Conference, Houston, Texas, May 2014
- Curry, J., Zhu, W., **Craig, B.,** Turpin, L., Bokhari, M., and Mhasavekar, P., Using a Natural Language Generation Approach to Documenting Simulation Results, *Proceedings of the Winter Simulation Conference (WSC 2013)*, Washington, DC, December 2013
- McSweeney, K., Tomlinson, C., and Craig, B., Using Safety Performance Metrics to Support CSR Goals and Objectives, International Scientific Meeting for Corporate Social Responsibility (CSR) in Shipping, Special Session in 2nd International Maritime Incident and Near Miss Reporting Conference (IMISS 2013), Kotka, Finland, June 2013
- Tomlinson, C., **Craig, B.,** and Meehan, M., Enhancing Safety Performance with a Leading Indicators Program. *Proceedings of the Royal Institution of Naval Architects (RINA) International Conference on Human Factors in Ship Design and Operations*, London, England, November 2011
- McSweeney, K. and **Craig, B.,** Mariner Safety Near Misses Influencing Design. *ErgoShip 2011, Proceedings of The First Conference on Maritime Human Factors,* Gothenburg, Sweden, September 2011
- **Craig, B.,** Das, K., and Khago, A., Shipboard and Shore Side Perception of Safety Culture. *Proceedings of the 2010 Industrial Engineering Research Conference*, Cancun, Mexico, June 2010
- **Craig, B.,** Congleton, J., Kerk, C., Amendola, A., Gaines, W., and Das, K., Potential Psychosocial Risk Factors and Occupational Injury/Illness. *Proceedings of the 2010 Industrial Engineering Research Conference*, Cancun, Mexico, June 2010
- McSweeney, K., Pray, J., and **Craig, B.,** Integration of Human Factors Engineering into Design An Applied Approach. *Proceedings of the Royal Institution of Naval Architects (RINA) Human Factors Conference*, London, February 2009
- McSweeney, K., Craig, B., Congleton, J., and Miller, D., Ergonomic Program Effectiveness for Office and Laboratory Workers, *Proceedings of the 47<sup>th</sup> Annual Human Factors and Ergonomics Conference*, Human Factors and Ergonomics Society, October 2003
- Spigener, J., Gaupreaux, G., Amato, F., and **Craig, B.,** Effective Application of Behavioral Based Processes in Offshore Operations. *Proceedings of the 2<sup>nd</sup>*

*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.,** 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

#### Peer Reviewed Conference/Symposium Presentations/Posters

- Jafari Kang, M., Zohoori, S., Hamidi, M., and **Craig, B**., "A vectorized AIS-based algorithm for waterway traffic feature analysis: A case study of Houston Ship Channel". Transportation Research Board, Washington DC, accepted for January 2021.
- Zohoori, S., Jafari Kang, M., Hamidi, M., and **Craig, B**., "Using Automatic Identification System (AIS) data to quantify narrow waterways congestion: a case study of Houston Ship Channel". Transportation Research Board, Washington DC, accepted for January 2021.
- Ebbasi, E., Morbale, P., Gubbala, S., Li, Y. and **Craig, B.** (2020). An Investigation in Muscle Activity of Student's Neck and Back in Various University Rooms. In W. Karwowski, R. Goossens, S. Xiong, A. Murata, R. Goonetilleke (eds): Advances in Physical, Social & Occupational Ergonomics, Pages 102-108.
- Liu, Y, Li, Y. and **Craig, B.** (2020). Estimation of Forearm, Deltoid and Trapeezius Muscle Activities to Overuse of Smartphones with and Without Armrests. In W. Karwowski, R. Goossens, S. Xiong, A. Murata, R. Goonetilleke (eds): Advances in Physical, Social & Occupational Ergonomics, Pages 185-191.
- Li, G., Li, Y., and **Craig, B**. (2019). A Systematic Review of Musculoskeletal Disorders (MSDs) Among Port Workers. In: Goossens R. (eds): Advances in Social and Occupational Ergonomics, 201-211, Springer, Cham.
- Zhu, W., Curry, J., **Craig, B**., Zhou, J., Chu, H., and Yoo, J., Impact of Awarding Scholarships to Current Students, *Proceedings of the 2019 American Society of Engineering Education 126th Annual Conference and Exposition,* June 2019
- Zhu, W., Curry, J., Zhou, J., and **Craig, B.,** SCOPE STEM Scholarship Program for Industrial and Mechanical Engineering Students, *The 2018 Institute of Industrial and Systems Engineering Annual Conference*, Orlando, FL, May 2018
- Paul, N., Li, Y., & **Craig, B.** (2018). Analysis of Muscular Fatigue and Foot Discomfort While Wearing Different Types of Men's Formal Shoes. In Houston HFES Symposium, April 20, 2018, Houston, TX.
- Mahesh, V., Li, Y., and **Craig, B.** (2017). Effect of Motion Type and Inclination on Muscle Activity and Edema. In Southwest HFES Symposium, June 9, 2017, San Antonio, TX.
- Akurke, S., Li, Y., and **Craig, B.** (2017). Effect of screen size of Smartphone on neck and arms. In Southwest HFES Symposium, June 9, 2017, San Antonio, TX.

- Dabiran, Y., Li, Y., and **Craig, B.** (2017). Evaluating the effect of music on cognitive task performance. In Southwest HFES Symposium, June 9, 2017, San Antonio, TX.
- Hamidi, M., Tokgoz, B., Marquez, A., and **Craig, B**., A Framework for Port Warehouse Space Assignment Problem, *The 2017 Institute of Industrial and Systems Engineering Annual Conference*. May 2017
- Zhu, W., Craig, B., Chu, H., Curry, J., and Zhou, J., Industrial and Mechanical Engineering Scholars with Scholarships, Career Mentoring, Outreach and Advisement, Professional Societies and Engineering Learning Community (SCOPE) S-STEM Program, *The 2017 American Society of Engineering Education 124<sup>th</sup> Annual Conference and Exposition*, Columbus, OH, June 2017
- Shi, Y., Xiang, Y., and **Craig, B.,** Condition-based maintenance for deteriorating transportation infrastructures, *The 2017 Institute of Industrial and Systems Engineering Annual Conference*, May 2017
- Tomlinson, C., **Craig, B.,** and McSweeney, K., The ABS Approach to Selfassessing Safety Culture in Maritime Organisations *Royal Institution of Naval Architects (RINA) International Conference on Human Factors in Ship Design and Operations*, London, England, September 2016
- Ilori, A., Li, Y., Mahesh, V., and **Craig, B.**, Effect of Position: An Ergonomics Evaluation of Police Wearable Equipment. *7th International Conference on Applied Human Factors and Ergonomics*, Orlando, Florida, July 2016
- Safa, M. and **Craig, B.**, Maritime and Port Activity Analysis Tool. 7<sup>th</sup> International Conference on Applied Human Factors and Ergonomics, Orlando, Florida, July 2016.
- Chodapaneedi, T., Illori, A., Sibbadi, B., Allam, V., Gandi, R., Li, Y., **Craig, B.,** Order Input Interface for People with Speech and Hearing Impairment at a Drive Thru (Presentation), *Human Factors and Ergonomics Society – Houston Chapter*, Clear Lake, Texas, June 2016
- Vanukura, R., Kandakatla, J., Konidhina, M., Satti, S., Penumatsa, S., Li, Y., Craig, B., Resume Search with Multiple Key-Words of Job Requirement (Poster), *Human Factors and Ergonomics Society Houston Chapter*, Clear Lake, Texas, June 2016
- Mahesh, V., Li, G., Li, Y., Craig, B., Effect of Flooring on Lower Extremity Discomfort and Fatigue during Food Service Tray-line Jobs (Poster), *Human Factors and Ergonomics Society – Houston Chapter*, Clear Lake, Texas, June 2016
- Ilori, A., Li., Y., Mahesh, V., Li, **Craig, B.**, Effect of Position: An Ergonomics Evaluation of Police Wearable Equipment (Poster), *Human Factors and Ergonomics Society Houston Chapter*, Clear Lake, Texas, June 2016
- Illori, A., Li, G., Li, Y., Zhang, J., Craig, B., Effects of Category Wording and Color Contrasts on the Usability of a Library Website in a Language-Diverse Institution (Poster), *Human Factors and Ergonomics Society – Houston Chapter*, Clear Lake, Texas, June 2016
- Patil, N., Kethineedi, S., Dabiran, Y., Saiprem, P., Li, G., Li, Y., **Craig, B.**, Evaluation of User Experience in Different Instant Messaging (Poster), *Human Factors and Ergonomics Society – Houston Chapter*, Clear Lake, Texas, June 2016

- Dabiran, Y., Navuluri, S., Piya, S., Li, Y., **Craig, B.**, Music Ergonomics: A Study on Violin/Viola Shoulder Rest (Poster), *Human Factors and Ergonomics Society Houston Chapter*, Clear Lake, Texas, June 2016
- Zhu, Z., Xiang, Y., Zhu, W., and **Craig, B.**, *Preventive Maintenance for Port Equipment with Schedule Constraints*, Industrial and System Engineering Research Conference, Anaheim, CA, May 2016
- Mahesh, V., Li, Y., & **Craig, B.**, (2016). *Evaluation of Flooring on Comfort and Fatigue in Trayline Duties*, Industrial and System Engineering Research Conference, Anaheim, California, May 2016
- Kulibaba, N., Xiang, Y., Curry, J., and **Craig, B.,** *Joint Condition-based Maintenance and Spare Parts Provisioning for a Two-echelon Network*, Industrial and System Engineering Research Conference, Anaheim, CA, May 2016
- Zhu, W., Jiang, G., and **Craig, B.,** *Online Simulation Course and "Arena Video Tutor" Mobile App Development*, 2016 Industrial Engineering Research Conference, Anaheim, CA, May 2016
- Wu, X., Mehta, A., Zaloom, V, and **Craig, B.**, Analysis of Waterway Transportation in Southeast Texas Waterway based on AIS Data, *Transportation Research Board 95<sup>th</sup> Annual Meeting*, Washington, DC, January, 2016
- Curry, J., and **Craig, B.,** Zhu, W., An Online 2+2 Bachelor's Degree Program Track in Industrial Engineering at Lamar University, *2016 American Society of Engineering Education 123<sup>rd</sup> Annual Conference and Exposition*, New Orleans, Louisiana, June 2016
- **Craig, B.,** Papillon, R., Curry, J., Zhu, W., and McSweeney, K., Reporting Practices for Close Call (Near Miss) Reporting Systems, *2014 Offshore Technology Conference*, Houston, Texas, May 2014
- Curry, J., Zhu, W., **Craig, B.,** Turpin, L., Bokhari, M., and Mhasavekar, P., Using a Natural Language Generation Approach to Documenting Simulation Results, *Winter Simulation Conference (WSC 2013)*, Washington, DC, December 2013
- McSweeney, K., Tomlinson, C., and Craig, B., Using Safety Performance Metrics to Support CSR Goals and Objectives, International Scientific Meeting for Corporate Social Responsibility (CSR) in Shipping, Special Session in 2nd International Maritime Incident and Near Miss Reporting Conference (IMISS2013), Kotka, Finland, June 2013
- McSweeney, K., Craig, B., Curry, J., and Zhu, W. Are Mariner Safety Near Misses Influencing Design? Marine Transportation Safety and Human Factors Committee, *Transportation Research Board 92<sup>nd</sup> Annual Meeting*, Washington DC, January 2013
- Curry, J., Zhu, W., **Craig, B.,** McSweeney, K., Tomlinson, C., and Zaloom, V., Development of a Web-based Maritime Safety Survey Data Analysis System. *2012 Industrial Engineer Research Conference*, Orlando, Florida, May 2012
- Tomlinson, C., **Craig, B.,** and Meehan, M., Enhancing Safety Performance with a Leading Indicators Program. *Royal Institution of Naval Architects (RINA) International Conference on Human Factors in Ship Design and Operations*, London, England, November 2011
- McSweeney, K. Coady, E., and Craig, B., Mariner Safety Near Misses Influencing Design. *ErgoShip 2011, The First Conference on Maritime Human Factors*, Gothenburg, Sweden, September 2011

- **Craig, B.,** Das, K., and Khago, A., Shipboard and Shore Side Perception of Safety Culture. *2010 Industrial Engineer Research Conference*, Cancun, Mexico, June 2010
- **Craig, B.,** Congleton, J., Kerk, C., Amendola, A., Gaines, W., and Das, K., Potential Psychosocial Risk Factors and Occupational Injury/Illness. *2010 Industrial Engineering Research Conference*, Cancun, Mexico, June 2010
- 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, England, February 2009
- **Craig, B.,** 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*, Nashville, Tennessee, May 2007
- **Craig, B.,** Occupational Injury/Illness Risk Factor Data in the Manual Materials Handling Industry, *Human Factors and Ergonomics Conference, Houston Chapter*, Houston, Texas, May 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
- McSweeney, K., Craig, B., Congleton, J., and Miller, D., Ergonomic Program Effectiveness for Office and Laboratory Workers, 47<sup>th</sup> Annual Human Factors and Ergonomics Conference, Human Factors and Ergonomics Society, Denver, Colorado, October 2003
- Congleton, J., Craig, B., Benden, M., and Parker, M., Current and Future Office Ergonomic Trends, 47<sup>th</sup> Annual Human Factors and Ergonomics Conference, Human Factors and Ergonomics Society, Poster Session, Denver, Colorado, October 2003
- **Craig, B.,** Transportation Methods of Laptop Computers and Peripheral Equipment, *Industrial Engineering Research Conference, Institute of Industrial Engineers Annual Conference*, (NOTE: due to the State of Texas's Budget deficit, I was not able to travel to Portland, Oregon), 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*, Orlando, Florida, 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*, Dallas, Texas, May 2002

#### **Other Peer Reviewed Publications**

- ASTM Guide for the Reporting of Injuries and Illnesses for Maritime Industry, Primary Author. Approved as ASTM F3284-18 and published, April, 2018
- ASTM Guide for the Reporting of Near Misses for Maritime Industry, Primary Author. Approved as F3256-17 and published, September, 2017
- American Bureau of Shipping, *Guidance Notes for the Application of Ergonomics to Marine Systems,* Co-contributor (Maintenance and Materials Handling Sections), Houston, Texas, August 2013
- American Bureau of Shipping, *Guidance Notes on Safety Culture and Leading Indicators of Safety*, Co-contributor, American Bureau of Shipping, Houston, Texas, January 2012
- American Bureau of Shipping, *Ambient and Environmental Guidance Note*, Cocontributor, American Bureau of Shipping, Houston, Texas, February 2010
- American Bureau of Shipping, *Means of Access to Tanks and Holds for Inspection*, Co-contributor, American Bureau of Shipping, Houston, Texas, February 2009
- **Craig, B.,** Ergonomics, in Wnek, G and Bowlin, G (Eds.), *Encyclopedia of Biomaterials and Biomedical Engineering*, July 2004
- American Bureau of Shipping, *Guidance Notes for the Application of Ergonomics to Marine Systems*, Co-contributor, American Bureau of Shipping, Houston, Texas, April 2003

# Other Publications, Conferences, Workshop, and Seminar Presentations/Participation

- **Craig, B.,** Curry, J., Zhu., W., and McSweeney, K., ABS/Lamar University Leveraging Data Analysis to Improve Lifeboat Safety, Human Factors Lectern Session, Invited Speaker, *Transportation Research Board 99<sup>th</sup> Annual Meeting*, Washington DC, January 2020
- Paul, N., Li, Y., and **Craig, B.** (2019). The Effect of Smartphone Using Postures and Tasks on Neck Flexion, Upper Extremity Muscular Fatigue and Users Discomfort. In Houston HFES Symposium, Houston, TX.
- Rao, G., Patel, J., Jani, J., Madkour, N., Sharma, P., Li, Y., and **Craig, B.** (2019). Ergonomic Improvements in Heavy-Duty Four-Wheel Cart with Pelvis Support. In 1st Annual Graduate Research Celebration, Lamar University, Beaumont, TX.
- Mhamunkar. M., Bagane, S., Kolhe, L., Singh, V., Li, Y., and **Craig, B.** (2019). Handheld Grass Cutter Machine with Supporting Wheels. Poster Session at the Houston HFES Symposium, Houston, TX.
- Patel, J., Rao, G., Jani, J., Madkour, N., Sharma, P., Li, Y., and **Craig, B.** (2019). Ergonomic Improvements in Heavy-Duty Four-Wheel Cart with Pelvis Support. Poster Session at the Houston HFES Symposium, Houston, TX.
- Patel, S., Li, Y., and **Craig, B.** (2019). Ergonomics evaluation of material handling task using a tilt table cart. Poster Session at the Houston HFES Symposium, Houston, TX.
- Li, G., Li, Y., and **Craig, B.** (2019). Exploring the effects of weather, lighting condition and traffic volume on driver behavior: A simulator-based study. Poster Session at the Houston HFES Symposium, Houston, TX.

- Kaneria, A., Li, Y., and **Craig, B.** (2019). Learning Drivers' Behavior Using Social Networking Service. Poster Session at the Houston HFES Symposium, Houston, TX.
- Paul, N., Li, Y., and **Craig, B.** (2019). The Effect of Different Smartphone-Use Postures on Neck Flexion. Poster Session in 1st Annual Graduate Research Celebration, Lamar University, Beaumont, TX.
- Li, G., Li, Y., and **Craig, B.** (2019). Exploring the effects of weather, lighting condition and traffic volume on driver behavior: A simulator-based study. Poster Session in 1st Annual Graduate Research Celebration, Lamar University, Beaumont, TX.
- **Craig, B.,** and McSweeney, K., ABS/Lamar University Maritime Safety Research Initiative/Center, Human Factors Workshop, Invited Speaker, *Transportation Research Board 97<sup>th</sup> Annual Meeting*, Washington DC, January 2018
- **Craig, B.** and McSweeney, K. ABS/Lamar University Maritime Safety Research Initiative. *Transportation Research Board's Ferry Transportation and Marine Safety and Human Factors Committee's Joint Mid-year Meeting*, New York, NY, May 2017
- Craig, B., and McSweeney, K., Maritime: Safety Culture and Leading Indicators, Safety Culture Assessment and Improvement Experiences across Modes: Case Studies and Lessons Learned, Human Factors Workshop, Invited Speaker, *Transportation Research Board 96<sup>nd</sup> Annual Meeting*, Washington DC, January 2017
- Marquez, A. and **Craig, B.** Port Logistics, *Congreso de Innovacion, Ingenieria y Tecnologia 2016*, Invited Presentation, Progreso, Mexico, May, 2016
- **Craig, B.** and Stromberg, E., Port Community Outreach: A University's Role, *AAPA Seaports Magazine*, Summer, 2016
- Bureau of Safety and Environmental Enforcement (BSEE) 2015 BSEE Domestic and International Standards Workshop, Quality Management and Equipment Reliability (QM/ER) Session, Invited Panelist, University of Houston, Houston, Texas, May 2015
- STEM Outreach Workshop, Invited Panelist, Lamar University, Beaumont, Texas, January 2015
- **Craig, B.,** *Human Factors, Ergonomics, and Safety*, Office of Undergraduate Research (OUR), Lamar University, Beaumont, Texas, November 2014
- Ocean Energy Safety Research Roadmap for the 21st Century, Attendee, Ocean Energy Safety Institute (OESI), College Station, Texas, October 2014.
- STEM Outreach Workshop, Invited Panelist, Lamar University, Beaumont, Texas, January 2014
- Leadership Beaumont, Invited Participant, Lamar University, Beaumont, Texas, March 2013
- NASA Habitable Volume Workshop, Invited Participant, Houston, Texas, July 2012
- **Craig, B.,** *Human Factors and Ergonomics Guidelines in Auditory Displays,* Department of Audiology, Lamar University, Beaumont, Texas, 2004
- Co-Chair, *Effective Application of Behavioral Based Processing in Offshore Operations*, International Workshop on Human Factors in Offshore Operations, Houston, Texas, April 2002
- **Craig, B.,** *Ergonomics*, Southeast Texas Safety Seminar, ASSE Sabine Neches Chapter, Invited Speaker, Beaumont, Texas, January 2002

#### **Industry Presentations**

- **Craig, B.,** Curry, J., and Zhu, W., American Club/ABS/Lamar University Maritime Safety Initiative Phase One Final Presentation. *American Club and ABS, Houston*, TX, June 2019
- **Craig, B.,** ABS' and Lamar University's Maritime Safety Research Initiative. *National Safety Council, Waterborne Transport Group*, Maritime Administration (MARAD) DOT Headquarters Washington DC, May 2019
- **Craig, B.,** ABS' and Lamar University's Maritime Safety Research Initiative. 2019 Research Vessel Operators Committee Meeting (RVOC), Scripps Seaside Forum Auditorium Scripps Institution of Oceanography, La Jolla, CA, April 2019
- **Craig, B.,** Curry, J., and Zhu, W., American Club/ABS/Lamar University Maritime Safety Initiative Update. *American Club and ABS, Houston*, TX, January 2019
- **Craig, B.,** Curry, J., and Zhu, W., American Club/ABS/Lamar University Maritime Safety Initiative Update. *American Club and ABS, Houston*, TX, August 2018
- **Craig, B.,** ABS/Lamar University Maritime Safety Research Initiative/Center. *Transportation Research Board, Marine Safety and Human Factors Committee* (AW040), Washington DC, January 2018
- **Craig, B.,** ABS/Lamar University Maritime Safety Research Initiative/Center. *National Safety Council, Waterborne Transport Group*, Anaheim, CA, October 2016
- **Craig, B.,** Overview of the ABS Maritime Safety Research Initiative. *National Safety Council, Waterborne Transport Group*, Jacksonville, FL, April 2016
- Craig, B., Safety Data Performance Measurement for Continual Improvement, Invited Moderator/Panelist, Ship Operators Cooperative Program (SOCP) Spring Summit, Dania Beach, FL, April 2016
- **Craig, B.,** Center of Advances in Port Management Update, Plant Mangers Forum, Nederland, TX, February 2016
- **Craig, B.,** Curry, J., and Zhu, W., Combined *Leading Indicators and Safety Culture Assessment Results to Date*, ABS, Houston, Texas, February 2016
- **Craig, B.,** *Port Management Initiative at Lamar University*, West Gulf Maritime Association, Sabine Area Meeting, Beaumont, Texas, October 2015
- **Craig, B**., *Center for the Advances of Port Management,* National University of Singapore, Singapore, October 2015
- McSweeney, B., and **Craig, B**., *Introduction to Safety Culture Assessment,* The Maritime and Port Authority of Singapore, Singapore, October 2015
- **Craig, B**., and McSweeney. K., *Introduction to Safety Culture and Leading Indicator Assessment for <Industry Partner>*, Singapore, October 2015
- McSweeney, B., and **Craig, B**., *Introduction to the Mariner Personal Safety Project for <Industry Partner>*, Singapore, October 2015
- **Craig, B**., *ASTM Near Miss and Injury Reporting Best Practices Update*, Ship Operators Cooperative Program (SOCP) Safety and Health Working Group, Linthicum Heights, Maryland, October 2015
- **Craig, B.,** ABS Project on Safety Culture and Leading Indicators of Safety Combined Safety Culture Dataset Results. *National Safety Council, Waterborne Transport Group*, Atlanta, Georgia, September 2015

- **Craig, B**. and McSweeney, K., *ASTM Near Miss and Injury Reporting Standards Update*, Ship Operators Cooperative Program (SOCP) Safety and Health Working Group, WebEx Presentation, August 2015
- **Craig, B**., McSweeney, K., Curry, J., and Zhu, W., *Maritime Near Miss Reporting*, 2015 BSEE Domestic and International Standards Workshop, Houston, May 2015
- McSweeney. K., **Craig, B**., Curry, J., and Zhu, W., *Safety Culture and Leading Indicator Assessment for <Industry Partner>*, Singapore, December 2014
- **Craig, B**., *Eliminating Barriers to Data Sharing Forum*, Invited Panelist/Presenter, Ocean Energy Safety Institute (OESI), Houston, Texas, August 2014.
- **Craig, B**., *Safety Issues and Proposed Solutions*, Invited Panelist, Ship Operators Cooperative Program (SOCP), Galveston, Texas, May 2014.
- **Craig, B**., and McSweeney, K., *Overview of Safety Culture, Leading Indicators, and Combined Safety Culture Dataset,* <Industry Partner>, Singapore, April 2014.
- **Craig, B**., and McSweeney. K., *Introduction to Safety Culture and Leading Indicator Assessment for <Industry Partner>*, Singapore, April 2014
- McSweeney, B., and Craig, B., Introduction to the Mariner Personal Safety Project for <Industry Partner>, Singapore, April 2014
- **Craig, B**., and McSweeney. K., *Introduction to Safety Culture and Leading Indicator Assessment for <Industry Partner>*, Singapore, April 2014
- McSweeney, B., and **Craig, B**., *Introduction to the Mariner Personal Safety Project for <Industry Partner>*, Singapore, April 2014
- **Craig, B**., and McSweeney. K., *Introduction to Safety Culture and Leading Indicator Assessment for <Industry Partner>*, Singapore, April 2014
- McSweeney, B., and **Craig, B**., *Introduction to the Mariner Personal Safety Project for <Industry Partner>*, Singapore, April 2014
- **Craig, B**., and McSweeney. K., *Introduction to Safety Culture and Leading Indicator Assessment for <Industry Partner>*, Singapore, April 2014
- McSweeney, B., and Craig, B., Introduction to the Mariner Personal Safety Project for <Industry Partner>, Singapore, April 2014
- Craig, B., and McSweeney, K., Safety Culture and Leading Indicator Assessment Kick-Off for <Industry Partner>, Singapore, April 2014
- Craig, B., Overview of ABS Projects on Mariner Personal Safety (MPS) and Maritime Safety Research Center (MSRC), Cruise Lines International Association (CLIA), Videoconference, April 2014
- McSweeney, K. and **Craig, B.,** Update of the ABS Project on Mariner Personnel Safety (MPS). *National Safety Council, Waterborne Transport Group*, Houston, Texas, April 2013
- **Craig, B.,** Update of the ABS Project on Mariner Personnel Safety (MPS). *National Safety Council, Waterborne Transport Group*, Orlando, Florida, October 2012
- **Craig, B.,** Update of the ABS Project on Mariner Personnel Safety (MPS). *National Safety Council, Waterborne Transport Group*, Houston, Texas, April 2012
- **Craig, B.,** *Accident Causation-Human Error*, American Society of Safety Engineers (ASSE) Sabine Neches Chapter, Invited Speaker, Nederland, Texas, February 2012

- McSweeney, K. and Craig, B., Mariner Personal Safety, American Waterways Operators Inter-region Safety Committee Summer Meeting, Invited Speaker, Houston, Texas, July 2011
- **Craig, B.,** *Office Ergonomics: Common Problems; Practical Solutions*, Greenspoint Area Chapter (GAC) of the International Association of Administrative Professionals (IAAP), Invited Speaker, Houston, Texas, July 2011
- McSweeney, K. and **Craig, B.,** Mariner Personal Safety, *American Waterways Operators Coastal Safety Committee Summer Meeting*, Invited Speaker, Las Vegas, Nevada, June 2011
- McSweeney, K. and Craig, B., Maritime Personnel Safety Project Update. National Safety Council, Waterborne Transport Group, San Diego, California, October 2010
- McSweeney, K. and **Craig, B.,** Maritime Personnel Safety Project. *National Safety Council, Waterborne Transport Group*, Houston, Texas, April 2010
- McSweeney, K. and **Craig, B.,** Maritime Personnel Safety Project. *Ship Operations Cooperative Program*, Houston, Texas, April 2010
- **Craig, B.,** *Leading Indicators of Safety Performance and Safety Culture Analysis,* A. P. Moller-Maersk, Copenhagen, Denmark, 2009
- Elliot, B. and **Craig**, **B.**, *Evaluation of Off-the-Job Injuries*, CenterPoint Energy, Beaumont, Texas, 2003
- **Craig, B.,** 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
- **Craig, B.,** Fillyaw, J., and Joubert, B., *Ergonomic Chair Field Evaluation and Comparison*, Neutral Posture, Inc., Bryan, Texas, 2001
- **Craig, B.,** *Ergonomics in the Potrooms*, Alcoa, Inc. Tennessee Operations, Alcoa, Tennessee, February 2000
- **Craig, B.,** *State of Ergonomics at the Tennessee Smelter*, Alcoa, Inc. Primary Metals Ergonomics Conference, Wenatchee, Washington, September 1999
- Craig, B., 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, College Station, Texas, April 1999
- **Craig, B.,** *State of Ergonomics and Safety within the Primary Metals Division,* Aluminum Company of America – Primary Metals Smelting Operational Lead Team Meeting, Badin, North Carolina, April 1998
- Craig, B., Ergonomics Awareness, Aluminum Company of America
  Warrick Operations' Safety School, April 1998
  - Tennessee Operations' Recalled Employee Safety Training, June 1998
- Craig, B., 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., Introduction to Ergonomics in Design
  - Aluminum Company of America Tennessee Operations' Engineering Staff, Alcoa, Tennessee, March 1998
  - Fluor Daniel/Alcoa Partnership Engineering Staff, Greenville, South Carolina, March 1998
  - SNC Lavalin/Alcoa Partnership Engineering Staff, Montreal, Canada, February 1998
- Craig, B., Ergonomics in the Office
  - Aluminum Company of America Knoxville Office Staff (Primary Metals and Rigid Packaging World Headquarters, Knoxville, Tennessee), October 1997 – August 1998
  - Compaq Computer Corporation Main Campus, Houston, Texas, April 1997 August 1997
- **Craig, B.,** *Ergonomic Evaluation of the Docutek Area in the Print Shop*, Compaq Computer Corporation, Houston, Texas, April 1997
- Craig, B., 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, College Station, Texas, April 1997 and August 1996
- **Craig, B.,** *Investigation of Manual Materials Handlers and Their Environments*, United Parcel Service, February 1997
- Craig, B., Measurement of Maximal Aerobic Capacity and Task Energy Expenditure in Industry, Human Factors and Ergonomics Society – Texas A&M University Chapter, College Station, Texas, October 1993
- **Craig, B.,** *An Ergonomic Analysis of the Turbine Overhaul at the Dansby Power Plant (Turbine Disassembly)*, Dansby Power Plant, Bryan, Texas, May 1993
- **Craig, B.,** *An Ergonomic Analysis of the Administration Building at the Texas Municipal Power Agency*. Texas Municipal Power Agency, Carlos, Texas, December 1992

# Technical Papers/Reports

- Craig, B., Curry, J., and Zhu, W., *Leading Indicators and Safety Culture* Assessment for <Industry Partner>, ABS, Houston, Texas, December 2014
- **Craig, B.,** Curry, J., and Zhu, W., *Safety Culture Assessment for <Industry Partner>*, ABS, Houston, Texas, November 2013
- **Craig, B.,** Curry, J., and Zhu, W., *Leading Indicators and Safety Culture Assessment for <Industry Partner>*, ABS, Houston, Texas, November 2013
- Craig, B., Curry, J., and Zhu, W., Safety Culture Assessment for <Industry Partner>, ABS, Houston, Texas, November 2013
- **Craig, B.,** Curry, J., and Zhu, W., *Leading Indicators and Safety Culture Assessment for <Industry Partner>*, ABS, Houston, Texas, April 2013
- **Craig, B.,** Curry, J., and Zhu, W., *Safety Culture Assessment at ABS*, ABS, Houston, Texas, January 2013

- **Craig, B.,** Das, K., Tomlinson, C., *Leading Indicators of Safety Performance and Safety Culture Analysis*, American Bureau of Shipping, Houston, Texas, 2010
- Craig, B., Das, K., Tomlinson, C., *Leading Indicators of Safety Performance and Safety Culture Analysis*, A. P. Moller-Maersk, Copenhagen, Denmark, 2010
- McSweeney, K. and Craig, B., OSV Habitability Measurements on the L&M Chermamie Botruc #39, TR-2007-04, American Bureau of Shipping, Houston, Texas, 2007
- **Craig, B.,** *Ergonomic Evaluation of the Laboratory Area* Intercontinental Terminals, Deerpark, Texas, 2004
- McSweeney, K. and **Craig, B.,** Assessment of the Habitability and Ambient Environmental Characteristics of the Genesis and Typhoon Offshore Installations -American Bureau of Shipping, Houston, Texas, 2003
- Craig, B., Vessel Motion and its Effect on Human Fatigue American Bureau of Shipping, Houston, Texas, 2003
- Craig, B., 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, 2002
- **Craig, B.,** *Ergonomic Chair Field Evaluation and Comparison*, Tempur-Pedic, Inc. Lexington, Kentucky, 2002
- **Craig, B.,** *Ergonomic Chair Field Evaluation and Comparison II*, Neutral Posture, Inc., Bryan, Texas, 2002
- Craig, B., 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, 2001
- **Craig, B.,** *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, 2001
- **Craig, B.,** Fillyaw, J., and Joubert, B., *Ergonomic Chair Field Evaluation and Comparison*, Neutral Posture, Inc., Bryan, Texas, 2001
- **Craig, B.,** *Employee Utilization Guidelines in a Coking Operation at Exxon-Mobile Refining and Supply*, Beaumont, Texas, 2001
- **Craig, B.,** *Alcoa Production System Assessment in the Tennessee Operations Potrooms*, Alcoa, Tennessee, 2000
- **Craig, B.,** *Self-Assessment of the Ergonomics Program in the Tennessee Operations Smelter*, Alcoa, Tennessee, 2000
- **Craig, B.,** *Evaluation of the Safety Program at Northwest Alloys, Inc., Following a Major Incident Involving Mobile Equipment,* Addy, Washington, 1998
- **Craig, B.,** *Ergonomic and Safety Evaluation at the Badin Works Ingot Plant*, Badin, North Carolina, 1998
- **Craig, B.,** *Ergonomic Evaluation of the Docutek Area in the Print Shop for Compaq Computer Corporation*, Houston, Texas, 1997
- Congleton, J., **Craig, B.,** *Ergonomic Evaluation of Banco Popular Check Processing Procedure for Banco Popular de Puerto Rico*, San Juan, Puerto Rico, 1996
- Congleton, J., Monford, L., and **Craig, B.**, *An Ergonomic Evaluation of an Industrial Molding Process at Longwood Elastomers*, Brenham, Texas, 1994

- Congleton, J., Craig, B., and M<sup>c</sup>Sweeney, K., An Ergonomic Workstation Analysis of the Electronics Training Division at Texas A&M University, College Station, Texas, 1993
- Congleton, J., Al-Eisawi, K., **Craig, B.,** Goodman, S., Key, W., M<sup>c</sup>Sweeney, K., Tso, C., and Sampanthan, S., *An Ergonomic Analysis of the Turbine Overhaul at the Dansby Power Plant (Turbine Disassembly)*, Bryan, Texas, 1993
- Congleton, J., Arriola, D., Barnard, M., **Craig, B.,** and Harris, M., *An Ergonomic Analysis of the Administration Building at the Texas Municipal Power Agency*, Carlos, Texas, 1992

#### **Reviews/Conference Session Chairs**

- **Craig, B.,** Review of a proposed peer-reviewed journal article, Psychophysical Responses of Front Cradle Carry and Piggy Back Carry in Emergency Situations, *International Journal of Occupational Safety and Ergonomics (JOSE)*, March, 2018
- **Craig, B.,** ASTM Draft Review of *Best Practice for Safety Culture in the Maritime Industry*, Ocean Energy Safety Institute (OESI), Houston, Texas, October 2016.
- **Craig, B.,** Session Chair for *the 4<sup>th</sup> Annual Texas STEM Conference* (Session 2B), Lamar University, Beaumont, Texas, October 2016
- **Craig, B.,** Session Chair for *A Forum for Dialogue: Focusing on Alarm Management for Safer Offshore Operations, Session II: The Way Forward for Alarm Management*, Ocean Energy Safety Institute (OESI), Houston, Texas, August 2016
- **Craig, B.,** ASTM Draft Review of *Best Practice for Fatigue Mitigation, for Fatigue Prevention for Marine and Mariner Use*, July 2016.
- **Craig, B.,** Review of a proposed new textbook, *Ergonomics and Human Factors in Safety Management*, Eds. Arezes, P. and de Carvalho, P., CRC Press, September 2014
- **Craig, B.,** Review of a PhD Thesis, Ergonomic Study of Manual Material Handling Tasks in Construction, Indian Institute of Technology, Kharagpur, India, June 2013
- **Craig, B.,** Review of a proposed peer-reviewed journal article, The Association of Aerobic Fitness with Injuries in the Fire Service, *American Journal of Epidemiology*, April, 2013
- **Craig, B.,** Studies in Safety Session Chair, *2010 Industrial Engineering Research Conference*, June 2010
- **Craig, B.,** Review of a proposed peer-reviewed conference proceeding article, A Comprehensive Assessment of Workload Exposure Variables, *Proceedings of the 2010 Industrial Engineering Research Conference*, February 2010
- **Craig, B.,** Review of a proposed peer-reviewed conference proceeding article, Modeling Human Performance in Chemical Protective Suits, *Proceedings of the* 2010 Industrial Engineering Research Conference, February 2010
- **Craig, B.,** Review of a proposed peer-reviewed conference proceeding article, Bone Conduction Intelligibility: Headset Comparison Study, *Proceedings of the* 2010 Industrial Engineering Research Conference, February 2010
- **Craig, B.,** Review of a proposed peer-reviewed conference proceeding article, Fatigue Curves in Tomato Packers in Jalisco, Mexico, *Proceedings of the 2010 Industrial Engineering Research Conference*, February 2010

- ANSI Canvass Reviewer for the Proposed New Draft of BIFMA X5.1-2010, Proposed American National Standard for Office Furniture, General Purpose Office Chairs – Tests, *The Business and Institutional Furniture Manufacturer's Association (BIFMA)*, January 2010
- **Craig, B.,** Second review of a proposed peer-reviewed journal article, Musculoskeletal Injuries Resulting from Patient Handling Tasks among Hospital Workers, *American Journal of Industrial Medicine*, February 2009
- **Craig, B.,** 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.,** 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.,** 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.,** 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.,** 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.,** 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.,** Review of a proposed new textbook, *Office Ergonomics: A Recipe for Success*, CRC Press, January 2006
- **Craig, B.,** Technical Review of *Guide for Means of Access to Tanks and Holds for Inspection*, American Bureau of Shipping, November 2005
- **Craig, B.,** 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.,** Technical Review of NIOSH Manuscript, Dart Document Tracking Number: 03-199, October 2003
- Reviewer for the peer-reviewed journal *Ergonomics* (2003 Present)
- **Craig, B.,** Review of the Textbook, *Production and Operations Analysis*, 4<sup>th</sup> Ed., by Steven Nahmias, April/May 2003
- **Craig, B.,** Technical Review of NIOSH Manuscript, Dart Document Tracking Number: 01-161, November, 2001.
- Congleton, J. and Craig, B., Review of Textbook, 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.

# Institutional and Professional Service

### University Service

- Lamar University Alumni Advisory Board Member Lamar University (2020 2023)
- Lamar University Strategic Planning Core Team Lamar University (2019 2020)
- Lamar University Strategic Planning Subcommittee One Lamar University (2019 2020)
- Risk Reduction Committee, Council of Instructional Departments (CID) Representative – Lamar University (2014 – 2018)
- Council of Instructional Departments (CID) Executive Council Member Lamar University (2014 – 2015)
- Council of Instructional Departments (CID) Member Lamar University (2010 Present)
- Member Online Faculty Task Force, Lamar University (2013 2014)
- University Honors Committee, Council of Instructional Departments (CID) Representative – Lamar University (2012 – 2015)
- Member Student-Faculty Relations Committee, Lamar University (2009 2012)
- Member Lamar University Institutional Review Board (IRB) (2007 2016)
- University Undergraduate Curriculum Council (UUCC), Council of Instructional Departments (CID) Representative – Lamar University (2012 – 2015)
- Member University Health and Safety Committee (2007 2013)
- Lamar University Rugby Club Faculty Advisor (2010 2012)
- Member Honors Program Director Search Committee (2007 2009)
- Member Online Course Evaluation Advisory Committee (2007 2008)
- Senator Faculty Senate (2005 2008)
- Member University Honors Committee (2004 2008)
- Student mentor, WINGS Foundations of Excellence Mentoring Program (2004 2008)
- Member All University Speaker Search Committee (2001)

# College Service

- Committee Chair, Development of BSIT with Automation/Instrumentation Concentration Committee (2017 present)
- Authored the Texas Higher Education Coordinating Board original proposal for the Masters of Science in Port and Terminal Management (2015 2016)
- Authored the SACS Prospectus for the Masters of Science in Port and Terminal Management (2015 – 2016)
- Member Executive Director Search Committee for the Center for the Advancement of Port Management (2015 2016)
- Member William B. and Mary Mitchell Endowed Chair Review Committee Lamar University (2014)

- Researcher Transportation Research Group Texas Transportation Institute (TTI) and Center for Ports and Waterways (CPW), Lamar University Divisions (2001 – 2014)
- Chair Student-Faculty Relations Committee, College of Engineering (2009 2010)
- Member College of Engineering Faculty Promotion and Tenure Committees (2006 – 2009)
- Member Texas Department of Transportation (TX DOT), Research Management Committee (RMC) 4, Technical Advisory Panel (TAP) (2004 – 2010)
- Member Engineering Mathematics Curriculum Committee (2004)
- Member Student-Faculty Relations Committee, College of Engineering (2003 2009)
- Member HEAF Funding Allocation Committee (2003 2007)
- Member University Professor/Merit Award College Committee (2002, 2007, 2009, 2010)

#### **Department Service**

- Chair Visiting Assistant Professor and Instructor Search Committee (2018)
- Recruiting visits (San Jacinto, Lee, Lonestar, etc.) (2015 2019)
- Chair Multimedia Producer Search Committee (2016)
- Chair Assistant Professor Search Committee (3 positions) (2015 2016)
- Chair Administrative Director Search Committee (2015 2016)
- Chair Assistant Professor Search Committee (2013 2014)
- Chair Technician Search Committee (2013 2015)
- Chair Instructor Search Committee (2013 2014)
- ABET and SACS reports (2006 present)
- Numerous Departmental ABET Committees (2005 present)
- Undergraduate Industrial Engineering Advisor (2002 present)
- Alpha Pi Mu Faculty Advisor (2002 2014)
- Lab and equipment acquisitions manager (2001 2019)
- 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 2018)
- Chair Industrial Engineering Department Tenure and Promotion Committee (2010)
- Chair Assistant Professor Search Committee (four positions) (2004 2007)

#### **Professional Service**

 Member, Working Group, Major Review and Revision of ASTM F1166, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, ASTM International Committee on Ships and Marine Technology (F25). (January 2020 – Present).

- Lamar University Representative ExxonMobil's Community Advisory Panel (2019 present)
- Member, American Society of Engineering Education (ASEE) (2019 present)
- Member, SETWAC ERWD sub-committee (2018 present)
- Member, Engage Cuba Texas Council (2016 2018)
- Representative, The Port of Houston Partners in Maritime Education (PHPME) (2016 – 2018)
- Advisory Council Member, Ocean Energy Safety Institute (OESI) Advisory Council, The Ocean Energy Safety Institute (OESI) is a collaborative initiative between the Texas A&M Engineering Experiment Station's (TEES) Mary Kay O'Connor Process Safety Center, partnering with Texas A&M University, University of Texas and University of Houston (2015 – 2019)
- Member, Council of Industrial Engineering Academic Department Heads (CIEADH), Institute of Industrial and Systems Engineering (2010 – 2019)
- ABET Program Evaluator (PEV) (2009 present)
- Member, International Organization for Standardization, Technical Committee 159, SC 5 (ISO TC159/SC5), *Ergonomics of the Physical Environment*, 2008 2013
- Invited Keynote Speaker, Jefferson County Go-Texan Scholarship Banquet Beaumont, Texas, May 2008 – 2012

#### External Promotion and Tenure Review

- University of Michigan-Dearborn, tenure and promotion to associate professor (2017)
- Texas A&M University, tenure and promotion to associate professor (2013)

#### Licenses, Certifications, Honors, and Offices Held

- Professional Engineer, Texas Board of Professional Engineers (2007 Present)
- Certified Professional Ergonomist, Board of Certification in Professional Ergonomics (2001 – Present)
- University Scholar Award (Lifetime Award), Lamar University, 2014 2015
- Research Enhancement Grant Award, Lamar University, 2010
- 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

#### Professional Memberships

- Senior Member Institute of Industrial Engineers (2001 Present)
- Member Human Factors and Ergonomics Society (1996 Present)
- Member American Society of Safety Engineers (2001 Present)
- Member American Industrial Hygiene Association (2001 2016)

- Member Houston Human Factors Forum (2012 Present)
- Member American Society of Engineering Education (2017 Present)