2015
Research and Creative Activity
Department of Industrial Engineering
Lamar University

Victor Zaloom, Ph.D., P.E., Professor
Associate Dean of College of Engineering

Brian Craig, Ph.D., P.E., CPE, Professor, Chair

James Curry, Ph.D., Associate Professor

Xinyu Liu, Ph.D., Associate Professor

Alberto Marquez, Ph.D., Associate Professor

Weihang Zhu, Ph.D., Associate Professor

Yueqing Li, Ph.D., Assistant Professor

Berna Tokgoz, Ph.D., Assistant Professor

Yisha Xiang, Ph.D., Assistant Professor

Mohammad Sima, Ph.D., Visiting Assistant Professor

Gary Yentzen, M.B.A., Instructor

Ezra Wari, D.E. Instructor / Lab Technician

Tae Hoon Kim, Ph.D., Adjunct Instructor

February 2016
This report is published yearly by the Lamar University Department of Industrial Engineering to highlight the research and creative accomplishments of the faculty and students of the department. Listings are in alphabetical order.

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Publications


Theses and Field Studies Published

Doctoral Dissertations/Field Studies


3. Alem Demissie (Fall 2015). Multi-objective Optimization for Natural Gas Pipeline Network Operation, Committee: Weihang Zhu*, James Curry, Alberto Marquez, Xinyu Liu, Xianchang Li

* Denotes committee chair. ** denotes co-chair.

Thesis Students


* Denotes committee chair. ** denotes co-chair.

Presentations Only


2. Craig, B., Center for the Advances of Port Management, National University of Singapore, Singapore, October 2015


5. Craig, B., ASTM Near Miss and Injury Reporting Standards Update, SOCP Safety and Health Working Group, Linthicum Heights, Maryland, October 2015
7. **Craig, B.** and McSweeney, K., ASTM Near Miss and Injury Reporting Standards Update, SOCP Safety and Health Working Group, WebEx Presentation, August 2015

### Current Funding

*Center for Advancement in Port Management, Lamar University, Beaumont, Texas, January 2015 – Present (funded special item by the State of Texas for $2.72M, September 1, 2015 – August 31, 2017)*

1. University Scholar – Research Enhancement Grant, Lamar University, **Brian Craig** – Principal Investigator (Fall 2014 – Summer 2016) $5,000
2. Research Enhancement Grant at Lamar University, **Yueqing Li**, “Develop a haptically-enhanced and game based science learning system”. Amount: $5,000.
3. Research Enhancement Grant, Lamar University, **Xinyu Liu**, “Research and proposal preparation for advanced manufacturing”, $8,000.
4. Research Enhancement Grant at Lamar University as PI “Resilience Quantification for Essential Facilities for a Hurricane Event”. Amount: $5,000. **Berna Eren Tokgoz**
8. Prototype Leading Indicator Tool, American Bureau of Shipping, Houston, Texas, **Brian Craig** – Principal Investigator with Co-PI’s: **James Curry** and **Weihang Zhu** (Fall 2010 – Present) $437,099
9. Mariner Safety Program (formerly Mariner Personal Safety), American Bureau of Shipping, Houston, Texas, **Brian Craig** – Principal Investigator with Co-PI’s: **James Curry** and **Weihang Zhu** (Fall 2009 – Present) $469,402
12. Presidential Faculty Fellowship for Undergraduate Teaching Research 2015, $15,000, with Jiang Zhou, Ken Aung, **Weihang Zhu** and **Xinyu Liu**.

**Panels**

1. **Brian Craig**, STEM Outreach Workshop, Invited Panelist, Lamar University, Beaumont, Texas, January 2015
2. **Yueqing Li**, Panel Review for National Science Foundation Graduate Research Fellowships Program (GRFP), December, 2015.

**IE Student Papers**


**Online Courses**

1. BSIE 2+2 online Program was officially launched in Fall 2014 semester and currently has 12 online BSIE students.

2. MEM online program was officially launched in Fall 2014 semester and one student will graduate in May 2016. Three local students are taking advantage of the online courses, combining them in to an hybrid program (on and off campus) for their convenience and preference.

3. In 2015, the IE department taught 38 online and distance education courses.

4. Weihang Zhu’s online course ‘Simulation of Industrial Systems’ has passed the Quality Matters standard assessment in 2015, administered by Center of Distance Education, Lamar University.

**Miscellaneous**

1. Session Chair, June 2, 2015, Industrial and System Engineering Research Conference, *Alem Demissie*

2. Session Chair, November 18, 2015, Advanced Materials Design, Synthesis, Processing, and Application, ASME-IMECE Conference, Houston, TX, *Mohammad Sima*

3. Session Chair, November 18, 2015, Computational Modeling and Simulation for Advanced Manufacturing, ASME-IMECE, Houston, TX, *Mohammad Sima*


5. “13th New Faculty Colloquium” June, 2015, Industrial and System Engineering Annual Research Conference and Expo, Nashville, TN, USA, *Berna Eren Tokgoz*


8. Session Chair, Nov 1-4, 2015, INFORMS, *Yisha Xiang*
9. ‘Design for Flow’ Session Chair, June 1, 2015, Industrial and System Engineering Research Conference, Weihang Zhu
10. Session Chair, Oct 3, 2015, Texas STEM Conference, Weihang Zhu
11. Session Chair, November 18, 2015, Advanced Materials Design, Synthesis, Processing, and Application, ASME-IMECE Conference, Houston, TX. Xinyu Liu