

YUEQING LI

Assistant Professor
Department of Industrial Engineering
Lamar University, Beaumont, TX 77710

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Research Interests

Human Factors & Ergonomics

- Human factors & ergonomics
- Occupational safety
- Safety engineering

Human-computer interaction (HCI)

- Intelligent user interface
- Haptic-user interface
- User behavior modeling

Neuroergonomics

- Brain-computer interface (BCI)
- Neurocognitive processing
- Data mining & algorithm design

Education

North Carolina State University, Department of Industrial and Systems Engineering Raleigh, NC

Ph. D. in Industrial Engineering/minor in Statistics (GPA: 3.83/4.0) *Aug 2014*

Dissertation: Evaluation of collaborative brain-computer interface (BCI) for people with severe motor disabilities

Advisor: Prof. Chang S. Nam

University of Arkansas, Department of Industrial Engineering **Fayetteville, AR**

M. S. in Industrial Engineering (GPA: 3.83/4.0) *Aug 2009*

Dissertation: A P300-based brain-computer interface (BCI): effects of luminosity contrast, stimulus duration, interface type & screen size

Advisor: Prof. Chang S. Nam

Nanjing University of Aeronautics and Astronautics,

School of Economics and Management

Nanjing, China

M. S. in Economics

Mar 2006

Zhengzhou University, School of Physics Engineering

Zhengzhou, China

B. S. in Electronics Engineering

Jul 2000

Honors

Eric Malstrom Endowed Memorial Scholarship, *Department of Industrial Engineering, University of Arkansas (2009-2010)*. This scholarship is awarded to the outstanding graduate students with exceptional academic promise in the Department of IE, University of Arkansas.

Outstanding Graduate Award, *Nanjing University of Aeronautics and Astronautics (2004-2005)*

Outstanding Teacher Award, *Henan Polytechnic University (2002-2003)*. This award is given to the most excellent teacher with exceptional teaching and is the highest level award in Henan Polytechnic University.

Renmin Scholarship, *Zhengzhou University (1996-2000)*

Excellent Student Award, *Zhengzhou University (1996-1998)*

Peer-Reviewed Journal Publications

In Press

J1. **Li, Y.**, & Nam, C.S. (2016) Evaluation of collaborative brain-computer interface for people with motor disabilities. *IEEE CIM* (in print)

J2. Nam, C.S., Moore, M., Choi, I., & **Li, Y.** (2015). Designing Better, Cost-Effective Brain-Computer Interfaces. *Ergonomics in Design: The Quarterly of Human Factors Applications*, October, 13-19.

J3. **Li, Y.**, Jeon, W., & Nam, C.S. (2015). Navigation by vibration: effects of vibrotactile feedback on a navigation task. *International Journal of Industrial Ergonomics*, 46, 76-84.

J4. **Li, Y.**, Bahn, S., Nam, C.S., & Lee, J. (2014). Effects of luminosity contrast and stimulus duration on user performance and preference in a P300-based brain-computer interface (BCI). *International Journal of Human-Computer Interaction*, 30, 151-163.

J5. Nam, C.S., **Li, Y.**, Yamaguchi, T., & Smith-Jackson, T.L. (2012). Haptic user interface for the visually impaired: implications for haptically enhanced science learning systems. *International Journal of Human-Computer Interaction*, 28, 784-798.

J6. **Li, Y.**, Nam, C. S., Shadden, B. B., & Johnson, S. L. (2011). A P300-Based Brain-Computer Interface (BCI): Effects of Interface Type and Screen Size. *International Journal of Human-Computer Interaction*, 27, 52-68.

J7. Nam, C. S., **Li, Y.**, & Johnson, S. (2010). Evaluation of P300-Based Brain-Computer Interface (BCI) in Real-World Contexts. *International Journal of Human-Computer Interaction*, 26, 621-637.

J8. Wang, Y., Dang, Y., **Li, Y.**, & Liu, S. (2010). An approach to increase prediction precision of GM(1,1) model based on optimization of the initial condition. *Expert Systems with Applications*, 37, 5640-5644.

J9. Nam, C. S., Jeon, Y., **Li, Y.**, Kim, Y-J., & Yoon, H. (2009). Usability of the P300 Speller: Towards a More Sustainable Brain-Computer Interface. *eMinds: International Journal on Human-Computer Interaction*, 1, 111-125.

J10. Nam, C. S., Johnson, S., **Li, Y.**, & Seong, Y. (2009). Evaluation of Human-Agent User Interfaces in Multi-Agent Systems. *International Journal of Industrial Ergonomics*, 39, 192-201.

J11. Wang, Y., Dang, Y., **Li, Y.**, & Liu, S. (2009). A new method to improve prediction precision of GM (1, 1) model. *The Journal of Grey System*, 21, 301-308.

In Preparation

J12. **Li, Y.**, Nam, C.S., & Johnson, S. Markov Chain based haptic user behavior analysis: implications for haptically enhanced science learning systems. 75% complete.

J13. **Li, Y.**, & Nam, C.S. Boosting support vector machine (BSVM): a new algorithm to improve EEG classification. 50% complete.

J14. **Li, Y.**, & Nam, C.S. Effect of LED frequency and color: towards a user-specific SSVEP-based brain-computer interface (BCI). 60% complete.

Conference Presentations and Publications

C1. Ilori, A., **Li, Y.**, Mahesh, V., and Craig, B. (2016). Effect of position: An ergonomics evaluation of police wearable equipment. 7th International Conference on Applied Human Factors and Ergonomics, Orlando, Florida, July 2016.

C2. Mahesh, V., **Li, Y.**, & Craig, B. (2016). Evaluation of flooring on comfort and fatigue in trayline duties. IIE Annual Conference, Anaheim, California, May 2016.

C3. **Li, Y.**, & Nam, C.S. (2015). A collaborative brain-computer interface (BCI) for ALS patients. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*.

C4. Jeon, W., **Li, Y.**, Bahn, S., & Nam, C.S. (2013). Assessing the effectiveness of vibrotactile feedback on a 2D navigation task. In M. Kurosu (Ed.): *Human-Computer Interaction*, Part IV, HCII 2013, LNCS 8007, 594-600.

C5. **Li, Y.**, Woo, J., & Nam, C.S. (2012). A preliminary research on P300-based BCI application for people with motor disabilities. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 56, 1049-1053.

C6. Johnson, S., **Li, Y.**, Nam, C.S. & Yamaguchi, T. (2011). Analyzing user behavior within a haptic system. In J.A. Jacko (Ed.): *Human-Computer Interaction*, Part II, HCII 2011, LNCS 6762, 62-70.

C7. **Li, Y.**, Johnson, S., & Nam, C.S. (2011). Haptically enhanced user interface to support science learning of visually impaired. In J.A. Jacko (Ed.): *Human-Computer Interaction*, Part IV, HCII 2011, LNCS 6764, 68-76.

C8. Johnson, S., Yamaguchi, T., **Li, Y.**, Kim, H.N., & Nam, C.S. (2010). Analyzing the behavior of users with visual impairments in a haptic learning application. In V. Rice (Eds): *Advances in understanding human performance neuroergonomics, human factors design, and special populations*, 675-683.

C9. Yamaguchi, T., Johnson, S., Kim, H.N., **Li, Y.**, Nam, C.S., & Smith-Jackson, T. L. (2009). Haptic Science Learning System for Students with Visual Impairments: A Preliminary Study. In C. Stephanidis (Ed.): *Universal Access in HCI*, HCII 2009, LNCS 5616, 157-166.

C10. **Li, Y.**, Nam, C.S., & Choo, Y-G. (2009). Towards optimizing P300 Speller matrix design while decreasing human error. In *Proceedings of 17th World Congress on Ergonomics*, Beijing, China.

C11. Nam, C.S., Johnson, S., & **Li, Y.** (2008). Environmental Noise and P300-Based Brain-Computer Interface (BCI). In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 52, 803-807.

C12. Johnson, S., **Li, Y.**, Jeon, Y., Kim, Y-J., & Nam, C.S. (2008). A P300-Based Brain-Computer Interface (BCI): Towards a Non-muscular Communication System for People with Neuromuscular Impairments. Arkansas Chapter of the Society for Neuroscience Annual Meeting, Little Rock, AR.

C13. Nam, C.S., Lyons, J., & Li, Y. (2007). Team Coordination and Collaboration within a Distributed Logistics Network. Annual Symposium on Applied Experimental Research. Fairfax, VA.

Teaching Experience

Lamar University

Beaumont, TX

Assistant Professor

INEN 5320 Statistics Decision Making (graduate), *Summer 2016*
INEN 5374 Human Factors Engineering (graduate), *Summer 2016*
ENGR 5301 ST Human-Computer Interaction (graduate), *Spring 2016*
INEN 5320 Statistics Decision Making (graduate), *Spring 2016*
INEN 4320 Statistics Decision Making (undergraduate), *Spring 2016*
INEN 2373 Engineering Economics (undergraduate), *Fall 2015*
INEN 5376 Occupational Ergonomics (graduate), *Fall 2015*
INEN 4376 Occupational Ergonomics (undergraduate), *Fall 2015*
INEN 5320 Statistics Decision Making (graduate), *Summer 2015*
INEN 5374 Human Factors Engineering (graduate), *Summer 2015*
ENGR 5301 ST Human-Computer Interaction (graduate), *Spring 2015*
INEN 5320 Statistics Decision Making (graduate), *Spring 2015*
INEN 4320 Statistics Decision Making (undergraduate), *Spring 2015*
ENGR 5301 ST Human Factors & Ergonomics (graduate), *Fall 2014*
ENGR 4301 ST Human Factors & Ergonomics (undergraduate), *Fall 2014*
ENGR 4301 ST Work Design II (undergraduate), *Fall 2014*

North Carolina State University

Raleigh, NC

Teaching Assistant

ISE 352 Work analysis and design (undergraduate), *Spring 2014*
ISE 352 Work analysis and design (undergraduate), *Fall 2013*
ISE 540 Human factors in systems design (graduate), *Spring 2013*

Henan Polytechnic University

Jiaozuo, China

Instructor

C programming (undergraduate), *Spring 2003*
Theory of transducer (undergraduate), *Fall 2002*
C programming (undergraduate), *Spring 2002*
Electronics theory (undergraduate), *Spring 2002*

Theory of transducer (undergraduate), *Fall 2001*

Electronics theory (undergraduate), *Spring 2001*

Special English (undergraduate), *Fall 2000*

Professional Experience

Dept. of Industrial Engineering, Lamar University

Beaumont, TX

Assistant Professor (Aug 2014-present)

Dept. of Industrial & Systems Engineering, North Carolina State University

Raleigh, NC

Research Assistant (Aug 2011-Jan 2013)

Dept. of Industrial Engineering, University of Arkansas

Fayetteville, AR

Research Assistant (Aug 2006-Aug 2011)

Blue Light Corporation

Ningbo, China

Marketing Manager (Feb 2006–Aug 2006)

Dept. of Electrical Engineering, Henan Polytechnic University

Jiaozuo, China

Instructor, Electrical Engineering Department (Jul 2000–Sep 2003)

Services

Journal reviewer: Brain-Computer Interfaces (since 2014), IEEE Computational Intelligence Magazine (CIM) (since 2016), Virtual Reality Journal (since 2016), Journal of Clean Energy (since 2016), Springerplus (since 2016)

Conference Proceedings reviewer: HFES 2015, HFES 2016

Panels: NSF GRFP Panels (2016)

Affiliates

Human Factor and Ergonomics Society (HFES)

Institute of Industrial Engineers (IIE)

Traffic Operations for Texas Department of Transportation

TEES (Texas A&M Engineering Experiment Station)

Research Funding

PI, Startup Funding, Lamar University, \$75,000, Aug 2014 – Aug 2017

PI, Lamar University Research Enhancement Grant, \$5000, Sep 2015 – Aug 2016

PI, Port Management Center, Lamar University, \$28,150, Aug 2016 – Aug 2018

Co-PI, Gill Foundation, 3D printing a prosthetic hand for a rehabilitation system, \$2,100, Jul 2016 – Jun 2017

Graduate Advising

Doctor of Engineering Advisor

- Adedapo Ilori, Doctoral of Industrial Engineering, Lamar University, Since Sep 2015
- Guanlong Li, Doctoral of Industrial Engineering, Lamar University, Since Jan 2016

Master Thesis Advisor

- Anirudh Juloori, Master of Industrial Engineering, Lamar University, Since Sep 2015
- Saishyam Akurke, Master of Industrial Engineering, Lamar University, Since Sep 2015
- Vishnu Mahesh, Master of Industrial Engineering, Lamar University, Since Jan 2016
- Yalda Dabiran, Master of Industrial Engineering, Lamar University, Since May 2016

Doctor of Engineering Committee

- Mehmet Burak Cankaya, Doctoral of Industrial Engineering, Lamar University, Since April 2016

Doctoral of Philosophy Committee

- Yan Fang, Ph.D of Chemical Engineering, Lamar University, Since April 2016