

# MEHDI KHAZAELI, PH.D., P.E.

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## EDUCATION

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- Ph.D.** (Engineering Science with concentration in Information Technology Engineering and minor in Electrical Engineering)  
August 2013  
College of Engineering, Mechanical and Industrial Engineering Department  
Louisiana State University, Baton Rouge, Louisiana  
Ph.D. Dissertation: Automated Semantic Extraction from Images using Pattern Recognition
- M.S.** (Product Design and Management), September 2009  
School of Engineering  
University of Liverpool, Liverpool, United Kingdom  
M.Sc Thesis: Design of a Nanoparticles Production System using Organic Materials
- B.S.** (Industrial Engineering), May 2005  
Department of Industrial and Systems Engineering  
Isfahan University of Technology, Isfahan, Iran

## WORK EXPERIENCE

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### School of Engineering and Computer Science, University of the Pacific (08/2014 – Present)

#### Assistant Professor in School of Engineering and Computer Science

- Courses taught:
  - Design and Innovation
  - Managing Science Technology and Innovation
  - Introduction to Data Analytics for Engineers and Data Scientists
  - Building Information Modeling
  - Project Decision Making
  - Project Management
  - Applied Analytics for Decision Making
  - Digital Marketing
- Helped to develop of a new concentration on Engineering Management for Master of Science degree program.
- Serving the university and the profession, and advising undergraduate and graduate students.
- Co-Chair of Pacific Entrepreneurship Network task force (3/18-3/21)

#### Co-Director of Technological Innovation and Entrepreneurship program (2/18-Present)

- Manage all aspects of Innovation Spaces in School of Engineering and Computer Science, and School of Business.
- Provide advice to university faculty and technical staff to support and promote technological innovation and entrepreneurial activities for graduate and undergraduate students.
- Allocate resources and budgets, analyze statistics, and generate reports on innovation initiatives.
- Plan and coordinate curricular and extracurricular activities that cross schools or campuses.
- Develop links with key external stakeholders and identify resources needed for cross-disciplinary initiatives.

**Center of Business and Information Technology, University of Louisiana Lafayette (10/2013 – 07/2014)**

**Data Scientist/Software Architect**

- Project managed large-scaled initiatives involving the transition of programs to new platform and the merger of disparate systems from client companies.
- Analyzed user specifications and requirements. Requirement, code, test, debug, deploy, train, and document projects for health care industry.
- Created “Big Data for Professionals” certificate at ULL
- Wrote proposal and grants related to image processing, big data and data mining.

**Department of Mechanical and Industrial Engineering, Louisiana State University (1/2010-8/2013)**

**Instructor and Research Assistant**

- Designed database, user interface and ETL system for FEMA project.
- Involved in various projects related to Artificial Intelligence, Data Modeling, System Analysis, Development of OLAP, OLTP and Data warehousing environments.
- Instructor or TA for courses such as **Lean Manufacturing, System Integration and Introduction to Computers and Statistics.**

**Bana Company, Sari (9/2006-9/2008)**

**Vice President of Operations**

- Oversaw and directed daily operations and decisions around all aspects of project performance from constructability reviews, estimating, scheduling, project procurement and controls through completion.
- Worked closely with Project Managers regarding constructability, timing, costs, and quality; reviewed performance against operating plans and standards, providing reports to contractors and approving change orders.

**Bana Company, Sari (8/2003-9/2006)**

**Project Manager**

- Coordinated projects, gathered and consolidates data and managed and tracked internal reporting.
- Designed an Integrated Platform Delivery to meet strict timelines and budget requirements.
- Developed and Implemented new bonus plan resulting in improved productivity.

**FUNDED RESEARCH AND ACTIVITIES**

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- University of the Pacific, Committee on Academic Planning and Development, Small Project Award, Amount: \$4,000, PI: M. Khazaeli, CO-PI: D. Wadhwani.
- University of the Pacific, Committee on Academic Planning and Development, Small Project Award, Amount: \$1,500, PI: M. Khazaeli.
- Venturewell Faculty Grant, Revised Technological Innovation and Entrepreneurship Minor: Fostering Interdisciplinary Solutions at University of the Pacific, Amount: \$18,500 , PI: M. Khazaeli (Not Funded).
- Venturewell Faculty Grant, Experiential Learning Signature Assignments to Spark Creativity and Technological Innovation for Introductory Courses, Amount: \$5,000 , PI: M. Khazaeli (Not Funded).
- Venturewell Faculty Grant, PacificHouse: An Entrepreneurial Ecosystem at University of the Pacific, Amount: \$24,000 , PI: M. Khazaeli (Not Funded).

- University of the Pacific, Scholarly/Artistic Activities Grant (SAAG), Assessment of Soil Erosion Using Real-Time Aerial 3D images application, Amount: \$3,000, PI: M. Khazaeli, CoPI: H. Estrada. Accepted with contingency but didn't pursue.
- University of the Pacific, TEC: Create a Computer Aided Design Lab for Technological Innovation and Entrepreneurship Space, Amount: \$10,244 , PI: M. Khazaeli.
- University of the Pacific, SEED: State of the Art Prototyping Equipment for a Multi-Disciplinary technological Innovation and Entrepreneurship Space (TIES), Amount: \$61,700 , PI: C. Weick, CoPI: M. Khazaeli.
- Kern Entrepreneurial Engineering Network, KEEN: Integrated e-Learning Modules MINI-GRANT, Amount \$2750, PI: M. Khazaeli.
- University of the Pacific, Eberhardt Research Fellowships, Title: "Gesture based Human Computer Interaction for Biomechanics", Amount: \$3,485.35, PI: M. Khazaeli.
- University of the Pacific, Committee on Academic Planning and Development, Small Project Award, Amount: \$2,823, PI: H. Estrada, CO-PI: M. Khazaeli.
- University of the Pacific, Committee on Academic Planning and Development, Travel Award, Amount: \$1000, PI: M. Khazaeli.

### **PROJECTS SUPERVISED AND UNDERGRADUATE RESEARCHERS**

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- Blakeslee , J; "Optimizing the Best Play in Basketball using Deep Learning" Accepted abstract at 2020 MIT Sloan Sports Analytics Conference, 2020
- De Nardi , A; "An Analysis of the Waterpolo Game Outcome: Predict and Guide Gameplay Strategies" Accepted abstract at 2020 MIT Sloan Sports Analytics Conference, 2020
- Koyama, J.; Teixeira, R.; "Integration of BIM and Structural Analysis: A Case Study" Second place for IISE CD student competition, May 2018.
- Anama, C.; Wang, X.; Zhang, Y.; 2016 IIE CIS mobile app competition -Dr. R3- Proposal reviewed and accepted, May 2016.
- O'Reilly, J.; "Photonics in Data Transportation & Integrated Circuits" Presented in PURCC, University of the Pacific, Apr 2016.
- Pamma, A.; Cha, B.; "Building Information Modeling for Energy Efficiency and Structural Load Analysis on Different Wall Types" Presented in PURCC, University of the Pacific, 2016.
- Vitthal, M.; Singh, R.; "BIM, Location of Buildings, and Energy" Presented in PURCC, University of the Pacific, Apr 2016.
- Jung, J.; Moreno, M.; "Efficient HVAC Systems with Smart Sensors" Presented in PURCC, University of the Pacific, Apr 2016.

### **AWARDS AND CERTIFICATES**

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- School of Engineering and Computer Science Outstanding Faculty Award (2018);
- IE Outstanding Faculty of the Year (2013);
- NSF travel grant award for IIE Conference (2013);
- Outstanding innovation product in product design and development project expo (2009);
- Certified Internal Auditor: ISO 9001:2000 (DNV) (2005).
- Professional Engineer (P.E.): 2017 / Industrial / California / 4388

### **SERVICE**

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- President of Institute of Industrial and System Engineering (IISE) Construction division, 2016-2018
- Director of Institute of Industrial Engineering (IIE) Computer and Information System division, 2014 -2016

- Track co-chair for AI and Cyber Security Special Track at The 26th International FLAIRS Conference, in cooperation with the American Association for Artificial Intelligence, St. Pete Beach, Florida, May 22-24, 2013

## PUBLICATIONS

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### Refereed Journal Articles:

- Lee, L. S., Estrada, H., and Khazaeli, M. (2019) Effective Engineering Video Tutorials *Journal Of Online Engineering Education*, Vol. 9, No. 2, Article 2.
- Lashari S., Takbiri-Borujeni, A., Fathi E., Sun, T., Rahamni, R., Khazaeli M., (2019) Drilling performance monitoring and optimization: a data-driven approach. *Journal of Petroleum Exploration and Production Technology*, ISSN=2190-0566.
- Khazaeli, M., Javadpour, L., Estrada, H., & Takbiri-Borujeni, A. (2018) Assessment of Levee Erosion using Image Processing and Contextual Cueing. *Journal of Ecosystem and Ecography*, 8(2), 1-7.
- Khazaeli, M., El Kari, C., Baizer, J., Javadpour, L. (2017) Gesture based Human Computer Interaction for Athletic Training. *International Journal of Applied Exercise Physiology*, 6(3), 60-65. ISSN 2322-3537.
- Khazaeli, M., Javadpour, L., & Knapp, G. (2016). Image Segmentation from RGBD Images by 3D Point Cloud Attributes and High-Level Features. *International Journal of Image Processing*, 10(1), 1-13.
- Khazaeli, M., Javadpour, L., & Estrada, H. (2016). Image processing for erosion control of open-pit mines. *International Journal of Environment and Pollution*, 59(2-4), 203-212.
- Javadpour, L., Khazaeli, M., and Knapp, G.M., (2016). Machine Learning Approach for Pronominal Anaphora Resolution Based on Linguistic and Computational Features, *International Journal of Applied Mathematics and Machine Learning*, 5:1, 81-98

### Refereed Proceedings:

- Khazaeli, M.; H. Estrada, and L. S. Lee. "Building performance ontology based on parametric design" Proceedings of the 2019 IIE Annual Conference (ISERC), 18-21 May 2019, Orlando, FL.
- Khazaeli, M., H. Estrada, and L. S. Lee. A Case Study of Efficient HVAC Systems with Smart Thermostats - What Smart Thermostats Can Do in Residential Buildings? Proceedings of the 2018 Construction Research Congress (CRC 2018), New Orleans, LA, April 2-4, 2018.
- Lee, L. S., H. Estrada, and M. Khazaeli. Student and Instructor Perceptions of Online Engineering Education Videos, to be presented at the 2018 American Society of Engineering Education Conference, June 24-27, 2018, Salt Lake City, UT.
- Estrada, H., L.S. Lee, and M. Khazaeli. Integrating Sustainability in Structural Engineering Education, to be presented at the IV International Conference on Structural Engineering Education, Structural Engineering Education without Borders, June 20-22, 2018, Madrid, Spain.
- Khazaeli, M.; El Kari, C. Gesture based Human Computer Interaction for Education Purposes, aWEAR 2016: Wearable technologies, knowledge development, and learning, Stanford, CA: Stanford University. Nov 2016.
- Khazaeli, M.; L. S. Lee, and H. Estrada. The Promise of Big Data in the Construction Industry, Proceedings of the 2016 IIE Annual Conference (ISERC), May 2016.
- Khazaeli, M.; C. El Kari. The Effect of Technology and Big Data in Sport Industry. Proceedings of the 2016 IIE Annual Conference (ISERC), May 2016.

- Khazaeli, M.; and Saviz, C.; “Service Learning in Engineering Management”, American Society for Engineering Education Zone IV Conference, Apr. 2015
- Javadpour, L.; and Khazaeli, M.; "Business Intelligence in the Real Estate Industry and Effect of BIM Adoption", Proceedings of the 2015 Industrial and Systems Engineering Research Conference (ISERC), May 2015.
- Khazaeli, M.; Javadpour, L; Knapp, G.M.; "ERP adoption in enterprises with emerging Big Data ", Proceedings of the 2015 Industrial and Systems Engineering Research Conference (ISERC), May 2015, pp.1664-1671.
- Khazaeli, M., Javadpour, L., and Knapp, G.M., "Kinect Applications in Construction: From Tracking to Reconstruction", Proceedings of the 2013 Industrial and Systems Engineering Research Conference (ISERC), May 2013, pp. 259-267.
- Calix, R. A.; Javadpour, L.; Khazaeli, M.; Knapp, G. M.; “Automatic Detection of Nominal Entities in Speech for Enriched Content Search”, In Proceedings of the Twenty-Sixth International Florida Artificial Intelligence Research Society Conference (FLAIRS-26), May 22-24, 2013, St. Pete Beach, Florida, USA.
- Khazaeli, M; Javadpour, L; Knapp, G. M.; “Semantic Object Recognition for BIM Reverse Engineering”, 2012 Industrial and Systems Engineering Research Conference (ISERC), May 2012.
- Halder, A; Javadpour, L; Khazaeli, M; Knapp, G. M.; “Extracting Information from Business Documents using Linguistic and Rule-Based System” 2012 Industrial and Systems Engineering Research Conference (ISERC), May 2012.
- Calix, R. A.; Khazaeli, M.; Javadpour, L; Knapp, G. M.; “Dimensionality Reduction and Classification Analysis on the Audio Section of the SEMAINE Database”, In Proceedings of the Humaine Association Conference on Affective Computing and Intelligent Interaction (ACII 2011), Memphis, Tennessee, Oct. 9-12, 2011, (Lecture Notes in Computer Science, 2011, Volume 6975/2011, 323-331).
- Khazaeli, M.; and Knapp, G.M.; "A Survey and Case Study of "Big Data" Challenges in Industrial Engineering ", Abstract accepted in Proceedings of the 2015 Industrial and Systems Engineering Research Conference (ISERC), May 2015.
- Khazaeli, M; Data Analytics and Information Systems (DAIS) Division, Institute of Industrial and Systems Engineers (IISE). Retrieved from [https://www.iise.org/uploadedFiles/IIE/Community/Technical\\_Societies\\_and\\_Divisions/Computer\\_and\\_Information\\_Systems/Newsletter-Apr-2015-Research%20Gallery.pdf](https://www.iise.org/uploadedFiles/IIE/Community/Technical_Societies_and_Divisions/Computer_and_Information_Systems/Newsletter-Apr-2015-Research%20Gallery.pdf)