

Akansha Khandelwal, P.E., CFEI

Senior Consultant, Team Lead



A Ms. Khandelwal is a Senior Consultant for Engineering Systems Inc. (ESi), where she works with the Structural and Civil Engineering team and Fire and Explosion Practice. She specializes in fire and explosion investigations, and hazard and risk assessments in chemical and petrochemical facilities. She has experience in large loss investigations and assessing structures and equipment post event as part of incident investigations. Ms. Khandelwal is a Certified Fire and Explosion Investigator through The National Association of Fire Investigators (NAFI).

Ms. Khandelwal has over 15 years of experience performing assessment and design of structures for explosion and fire hazards for all building types. She is a licensed professional engineer in Texas and has performed new building design and retrofit of existing structures in petrochemical facilities in North America, South America, Europe, and Asia. In addition to buildings, Ms. Khandelwal has also evaluated process equipment, piping, fire-water tanks, and associated systems from explosion hazards as part of incident investigations, business interruption and emergency response studies. She also has experience performing fire & explosion risk assessments and safety, risk, and hazard evaluations for chemical processing facilities, including oil & gas. She has training in performing HAZOPs and PSM audits.

Ms. Khandelwal has led forensic evaluations of buildings for construction defects and extreme weather events. She has also performed post damage retrofit designs after extreme weather events. In addition, Ms. Khandelwal has performed investigations related to safety at construction job sites and is trained in OSHA safety requirements on construction sites.

Education

MS, Civil Engineering, University of Texas. 2007

BS, Tech: Civil Engineering, Indian Institute of Technology, 2004

Licenses & Certifications

- State of Texas P.E. License No. 108678

Languages

- English
- Hindi

Contact Information

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ESi Houston

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Conroe, TX 77385

Areas of Specialization

- Fire and Explosion
- Hazard & Risk Management
- Chemical & Petrochemical
- Construction Defects
- Storm Damage Investigations
- Commercial Structures
- Safety

Positions Held

Engineering Systems Inc., Conroe, Texas

- Senior Consultant – 2021 to Present

Baker Engineering & Risk Consultants

- Senior Project Engineer, 2007 – 2021

Baker Engineering & Risk Consultants, San Antonio, Texas

- Intern, 5/2006 - 7/2006

Oracle India Ltd, Hyderabad, India

- Application Engineer, 2004 - 2005

Continuing Education

- Occupational Safety & Health Standards for Construction - OSHA #510 – 2024
- Safety and Health Management Program - OSHA #2455 – 2024
- OSHA 8 Hour HAZWOPER Refresher - OSHA – 2023
- Fall Protection - OSHA #3115 - 2023
- Principles of Scaffolding - OSHA #3085 – 2023
- Fire Investigation Training Program - NAFI - 2022
- OSHA 30-hour Construction Industry - 360 Training - 2022
- HAAG Certified Reviewer – Level II
- Design and Construction of Residential Foundations & Soil Materials Testing
Greater Houston Building Association 2022
- Aerial and Scissor Lift - American Safety Council, 2022
- Auditing Process Safety Management (PSM) Programs - PrimaTech 2021
- PHA/HAZOP Facilitation - Baker Engineering & Risk Consultants, 2021
- Practical Connection Design for Economical Steel Connections - AISC, 2010
- Managing Projects - The University of Texas at Austin, 2009
- 40 hr HAZWOPER Training - Quality Safety Services Inc., 2008
- 32 hr Blast Resistant Structural Design Course - Baker Engineering & Risk Consultants, 2008
- CFI Trainer Course – Residential Gas Systems
- CFI Trainer Course – Residential Electrical System
- CFI Trainer Course – Arc Mapping Basics
- CFI Trainer Course – Electrical Safety
- ESI Training – Fire Safety
- ESI Training – Walking Work Surfaces
- ESI Training – Electrical Safety
- ESI Training – Ergonomics

- ESi Training – Driver Safety
- ESi Training – Back Safety

Publications

Khandelwal, A. and Smith, P. "A Strategic Approach to Occupied Building Risk Assessment", European Process Safety Council Webinar, March 2020, EPSC

Khandelwal, A. and Dyer, J. "New Building Siting Using Risk Based Approach", 11th Global Congress on Process Safety 2015, AIChE

Dyer, J. and Khandelwal, A. "Design of Buildings in Petrochemical Facilities – Risk Based Approach", 4th Process Safety Technical Exchange Meeting 2011, Saudi Aramco

Dyer, J. and Khandelwal, A. "Design of Connections Between Precast Elements for Ductile Behavior Subjected to Impulsive Loading", Hazards Asia Pacific Symposium 2011, IChemE