



KEVIN K. MESYEF, P.E., S.E., C.W.I.
SENIOR CONSULTANT

kkmesyef@engsys.com

Mr. Mesyef is a Senior Consultant with ESi. He specializes in the investigation, evaluation and repair of damaged and distressed structures including residential, commercial, and industrial buildings and facilities. Mr. Mesyef also has extensive experience in the analysis, design and development of repair specifications, and preparation and implementation of quality control procedures.

Mr. Mesyef also has extensive experience with the development of engineered lift plans and rigging plans involving cranes, hoists, and other equipment. Mr. Mesyef has developed and/or analyzed lift plans for bridge construction, oil and gas facilities, renewable energy projects, manufacturing facilities, and communication towers.

Areas of Specialization

Development and Failure Analysis of Engineered Lifting and Rigging Plans
Structural Evaluation of Buildings (Residential and Commercial) and Industrial Structures
Structural Damage Investigations
Property Condition Assessments
Collapse and Structural Failure Investigations
Repair and Retrofit Design
Building Envelope Consulting and Water Intrusion Testing
QA/QC and ITP Development and Implementation

Education

M.S., Civil Engineering (Structural), University of Illinois-Urbana-Champaign, 2011
B.S., Civil Engineering (Structural), University of Illinois-Chicago, 2009

Registered Professional Engineer (PE)

State of Florida..... License No. 82626
State of Illinois..... License No. 062.066096
State of Indiana..... License No. PE11400457
State of Iowa..... License No. P26327
State of Michigan..... License No. 6201309984
State of Missouri..... License No. 2020030503
State of Nebraska..... License No. E-17224
State of New York..... License No. 101029
State of Ohio..... License No. PE.86453
State of Texas..... License No. 138851
State of Wisconsin..... License No. 45734-6

Registered Structural Engineer (SE)

State of Illinois..... License No. 081.007828
State of Alaska..... License No. SE107331
State of Hawaii..... License No. 18685



Certified Welding Inspector (CWI)

Certificate No.....16081801

Training and Certification

Credentials

Transportation Worker Identification Credential (TWIC) Card

Industry Certifications

ANST NDT Level 1

ACI Level 1 Certified Field Technician (Expired)

Safety Training

OSHA 30-Hour & 10-Hour

Supported/Suspended Scaffold User and Erector Hazards

Confined Space Hazards

Technical Training

Fundamentals of Arctic Engineering – University of Alaska Anchorage

ASME PD442 – BPV Code, Section VIII, Div. 1: Design and Fabrication of Pressure Vessels;

RSMeans Facilities and Construction Estimating

Lifting and Rigging

CROSBY Comprehensive Eight Hour Fundamentals of Rigging

ITI Lift Director & Critical Lift Planning

ITI Fundamentals of Rigging Engineering

Engineering Principles for Rigging and Load Handling Activities

Lift Planning Procedure, Considerations and Execution

Crane and Derrick Engineering, Installation and Planning

Professional Affiliations

American Society of Civil Engineers (ASCE)

Structural Engineering Institute (SEI)

Structural Engineers Association of Illinois (SEAOI)

American Institute of Steel Construction (AISC)

American Welding Society (AWS)

Positions Held

Engineering Systems Inc., Aurora, Illinois

Senior Consultant-Structural Engineering, 2018 – Present

Senior Staff Consultant-Structural Engineering, 2016 – 2017

Brindley Engineering Corporation, Lisle, Illinois

Project Lead/Reliability Engineer, 2013 – 2015

Citco Lemont Refinery, Lemont, Illinois

Reliability Engineer, 2011 – 2013

US Army Corps of Engineers, Champaign, Illinois

Structural Engineering Research Assistant, 2010 – 2011

Accurate Group, Inc., Lincolnshire, Illinois

Field Engineer, 2010 – 2010

Technical Publications

"Structural Inspection of Corpus Christi Army Depot: Vol. 1-3" – November 2010

US Army Corp of Engineers, Construction Engineering Research Laboratory

Authors: Dr. Ghassan K. Al-Chaar, Vito Cinfio, Dominick Dowds, Sean Guzik, Dr. Moussa A. Issa, Kevin Mesyef, Yadira Perez, and Steve Sweeney

"Structural Evaluation of Heavy Wood Trusses at Corpus Christi Army Depot, Texas" – October 2010

US Army Corp of Engineers, Construction Engineering Research Laboratory

Authors: Dr. Ghassan K. Al-Chaar, Vito Cinfio, Dominick Dowds, Dr. Moussa A. Issa, Lisa Kallemeyn, Kevin Mesyef, and Steve Sweeney

"Evaluation and Repair of Tornado Damage to a Large Manufacturing Plant" – November 2018

Eighth Congress on Forensic Engineering

Author: Kevin Mesyef;

Co-authors: Randall Bernhardt, Joseph Riddle, Dan Turner

This paper discusses the methods used to evaluate the damage to the building including the use of drones to evaluate roofing damage. Additionally, discussion is provided regarding temporary protection methods to facilitate a compressed schedule with multiple trades literally working on top of each other and around plant activities while partially in operation. The paper also covers the required analysis of the existing structural systems and design and implementation of repairs.

Technical Presentations

"Forensic Examination of Structures" – December 2017

This presentation included a discussion of structural engineering investigations of different types of material failures. Discussion was provided of the differences in the investigation for steel, concrete, masonry and wood structures. A case study for each material type was presented.

"Building Codes – Related to Construction Defects, Premises Liability and Professional Liability" – November 2017; December 2017

This presentation discussed what building codes are and why the codes are important to society. The presentation covered why knowledge of the codes is important to insurance professionals. A history of building codes in the United States was presented along with discussion of why various codes existed prior to the current unified codes and how codes and laws are enforced.

“Evaluation and Repair of Tornado Damage to a Large Manufacturing Plant” – Eighth Congress on Forensic Engineering – December 2018; Austin, Texas

This presentation covered the methods used to evaluate the damage to the building including the use of drones to evaluate roofing damage. Additionally, discussion is provided regarding temporary protection methods to facilitate a compressed schedule with multiple trades literally working on top of each other and around plant activities while partially in operation. The presentation also covered the required analysis of the existing structural systems and design and implementation of repairs.

“Photovoltaic Panel Installations and Building Codes”

This presentation covers the applicable building code requirements and what is required when there is no locally adopted building code for the installation of photovoltaic (solar) panels on existing buildings. The presentation discusses the necessary inspection and engineering processes to ensure the installations are done properly and meet code. Several examples of what to look out for when purchasing or insuring a building with installed panels.