

# Tyler J. Janecek

PE

Senior Staff Consultant



Mr. Janecek is a Senior Staff Consultant located in the Omaha, Nebraska office of Engineering Systems Inc (ESi) and practices mechanical engineering. He has experience in utility equipment, railroad maintenance of way equipment, hydraulic systems, structural design, electrically insulating aerial equipment, and is part of ESI's Rail Practice Group.

Mr. Janecek specializes in the design, prototyping and evaluation of mechanical systems and equipment. He has extensive experience in machine design, solid modeling, finite element analysis, fabrication, and testing. He has 6 years of industry experience designing electrically insulating mobile elevating work platforms (MEWP), digger derricks, and underground cable handling equipment for the utility market. During that time, he was involved in the design, testing, and implementation of all aspects of the equipment including the structures, machine design, hydraulic system, insulating system, power generation, and body compartments. Since joining ESI, Mr. Janecek has worked on several projects designing new and upgraded maintenance of way equipment for the railroad industry, testing of various products for all different types of industry, and providing engineering and project management support to local industries.

Mr. Janecek has also been involved in the creation and upkeep of internal company standards relating to lifting provisions, anaerobic adhesives, electrically insulating material qualification, and electrically insulating MEWP qualification and periodic testing.

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## Education

BS, Mechanical Engineering. University of Nebraska-Lincoln.  
2016

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## Licenses & Certifications

- State of Nebraska P.E. License E-20718

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## Languages

- English

## Contact Information

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(402) 881-4860

## ESi Omaha

5697 N 13<sup>th</sup> Street

Omaha, NE 68110

## Areas of Specialization

- Solid Modeling
- Mechanical & Materials Design
- Mechanical Testing
- FEA
- Hydraulic Systems
- High Voltage Dielectric Protection Systems
- Laboratory & Industrial Testing
- Data Acquisition & Instrumented Testing
- Non-Destructive Testing & Inspection

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## Positions Held

### Engineering Systems Inc., Omaha, Nebraska

- Senior Staff Consultant, 2025 – Present
- Staff Consultant, 2023 – 2025

### Altec Industries, Specialty Product Engineering, St. Joseph, Missouri

- Staff Engineer, 2021 - 2023
- Engineer II, 2019 - 2023

### Altec Industries, Aerials Product Engineering, St. Joseph, Missouri

- Engineer II, 2019
- Engineer I, 2017-2019

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## Continuing Education

**Dale Carnegie Course: Effective Communication & Human Relations, Skills for Success** – Dale Carnegie, 2018

**Fastener Training** - Fastenal, 2018

**Blodgett's Design of Welded Connections** - Lincoln Electric, 2019

**Level 1 GD&T Fundamentals** - Sigmetrix, 2022

**Traffic Crash Reconstruction for Engineers** - Northwestern University Center for Public Safety, 2024

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## Professional Affiliations/Honors

### American Society of Mechanical Engineers (ASME)

- Member

### American Railway Engineering and Maintenance of Way Association (AREMA)

- Member
- Chapter 27 Committee Member

### International Fluid Power Society (IFPS)

- Member
- Board of Directors – Member at Large, 2025 – Present
  - Finance Committee Member
  - Education Committee Member

- Membership Committee Member
- Fluid Power Hall of Fame Committee Member

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## Certifications

- Hydraulic Specialist (IFPS), 35532, 2022
- Mobile Hydraulic Mechanic (IFPS) 24094, 2018

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## Publications

“So Just Like Bending a Paper Clip?” Porter Ritchie, Hans Iwand, **Tyler Janecek**. Journal of Failure Analysis and Prevention, November 2024.

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## Presentations

“Dielectric Effects of Vacuum in Hydraulic Lines,” **Tyler Janecek**, Introduction to Dielectric Systems Course, Altec Industries, St. Joseph, MO, 2022.