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## **CURRICULUM VITAE OF DANIEL J. SOVAR, P.E.**

January 2026

## **I. General Information**

A. Position Senior Mechanical Engineer  
Semke Forensic  
154 Hughes Lane  
St. Charles, Missouri  
Telephone: 636-896-9995

## II. Professional Summary

A. Education:

Bachelor of Science  
Mechanical Engineering  
Washington University St. Louis  
St. Louis, Missouri  
1992

Bachelor of Science  
Engineering Science  
Minor Chemistry, Mathematics  
Baker University  
Baldwin City, Kansas  
1992

Rosary High School  
St. Louis, Missouri  
1987



B. Experience:

January 2020 to Present

Position: Senior Mechanical Engineer  
Semke Forensic  
154 Hughes Lane  
St. Charles, Missouri

Responsible for mechanical engineering projects with emphasis in fuel-fired equipment, mechanical design analysis, fire suppression systems.

April 2012 to January 2020

Position: Mechanical Engineer  
Semke Forensic  
154 Hughes Lane  
St. Charles, Missouri

Responsible for mechanical engineering projects with emphasis in fuel-fired equipment, mechanical design analysis, fire suppression systems.

January 2009 to April 2012

Position: Project Design Engineer  
Star Manufacturing  
St. Louis, Missouri

Responsible for design of gas fired and electrical commercial cooking equipment for the Lang brand. In charge of projects from design concept until first production. Projects included development of new griddles, ranges, and gas hot plates.

March 2008 to November 2008

Position: Project Engineer  
Battery Handling Systems  
St. Louis, Missouri

Responsible for assisting with design of CE certified battery handling machinery.

January 2007 to February 2008  
Position: Project Design Engineer  
Star Manufacturing  
St. Louis, Missouri

Responsible for design and implementation of Lang branded commercial cooking equipment. Projects included design, modification, and cost reduction of griddles, ranges, ovens, and broilers.

June 1999 to January 2007  
Position: Design Engineer  
Empire Comfort Systems  
Belleville, IL

Responsible for design of gas fireplaces and gas BBQ grills. Responsible for project design from concept to first production. Projects included design of vent free fireplaces, direct vent fireplaces, and outdoor gas grills.  
Responsible for design and setup of NOx test system and hood.

June 1997 to June 1999  
Position: Design Engineer  
Hussmann Corporation  
Bridgeton, Missouri

Responsible for design, cost reduction, and engineering support of medium temperature Impact refrigerated display cases.

November 1993 to June 1997  
Position: Design Engineer  
Alco Controls  
Maryland Heights, Missouri

Responsible for new products, cost reduction, and maintenance engineering for system protectors and regulator product lines.

### **III. Seminars and Technical Courses Attended**

- 1993 – ProEngineer Basic/Advanced Training
- 2002 – UL & Gas Consultants Gas Fired Heating Equipment Seminar
- 2008 – Adobe Indesign Training
- 2012 – Fire & Arson Conference, IAAI, Illinois Chapter, Fairview Heights, Illinois
- 2012 – Advanced Insurance Seminar, NSPII, Missouri Chapter, St. Louis, Missouri
- 2012 – Fire & Arson Conference, IAAI, Illinois Chapter, Champaign, Illinois
- 2012 – Investigating Solid Fuel-Burning Appliances Fires, Fire Finding, Benton Harbor, Michigan
- 2012 – Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan
- 2013 – Fire & Arson Conference, IAAI, Illinois Chapter, Fairview Heights, Illinois
- 2013 – Gas Explosions Webinar, NASP
- 2013 – Fire & Arson Conference, IAAI, Missouri Chapter, Lake Ozark, Missouri
- 2014 – Fire & Arson Conference, IAAI, Missouri Chapter, Lake Ozark, Missouri
- 2015 – Fire & Arson Conference, IAAI, Illinois Chapter, Fairview Heights, Illinois
- 2015 – Fire & Arson Conference, IAAI, Missouri Chapter, Lake Ozark, Missouri
- 2015 – National Propane Gas Association Certified Employee Training Program, 1.0 Basic Principles and Practices
- 2016 – IAAI-IL Buxton-Mazzone
- 2016 – Fire & Arson Conference, IAAI, Missouri Chapter, Lake Ozark, Missouri
- 2017 – Fire & Arson Conference, IAAI, Missouri Chapter, Springfield, Missouri
- 2018 – Missouri Propane Gas Association Training Program, Basic Principles and Practices
- 2018 – Fire & Arson Conference, IAAI, Illinois Chapter, Swansea, Illinois
- 2018 – Fire & Arson Conference, IAAI, Missouri Chapter, Springfield, Missouri
- 2019 – Fire & Arson Conference, IAAI, Illinois Chapter, Caseyville, Illinois
- 2019 – Fire & Arson Conference, IAAI, Missouri Chapter, Springfield, Missouri
- 2019 – Commercial Plumbing with PEX, AEC Daily Corporation
- 2020 – Ventilation and IAQ, ASHRAE Learning Institute
- 2020 – Achieving Fire Suppression and Safety with Standpipe Systems, AEC Daily Corporation
- 2020 – Fire-Safe Building Design: An Introduction to Automatic Sprinkler Systems, AEC Daily Corporation
- 2020 – HVAC for Home, Failure & Damage Analysis, Inc.
- 2021 – Fire & Arson Conference, IAAI, Missouri Chapter, Springfield, Missouri
- 2021 – Fire & Arson Conference, IAAI, Illinois Chapter, Caseyville, Illinois
- 2022 – Fire & Arson Conference, IAAI, Missouri Chapter, Springfield, Missouri
- 2024 – Forensic Analysis Involving Fugitive Natural Gas and Propane, SunCam, Inc.
- 2024 – Plumbing 101 – 12 Steps to a Successful Plumbing Design, American Society of Plumbing Engineers (ASPE)
- 2025 – Fire & Arson Conference, IAAI, Illinois and Iowa Chapters, Rock Island, Illinois

**IV. Professional Affiliations**

International Association of Arson Investigators (IAAI)  
Illinois Chapter of the International Association of Arson Investigators (ILIAAI)  
Missouri Chapter of the International Association of Arson Investigators (MOIAAI)  
National Fire Protection Association (NFPA)  
American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)  
American Society of Plumbing Engineers (ASPE)

**V. Patents**

US Patent 6945160 for Outdoor Cooker and Smoker Apparatus  
US Patent 20130206128 A1 for “Instant On” Gas Burner

**VI. Civic Involvement**

USA Hockey Certified Coach, Level 3  
Coach Twin Bridges Lightning – 2004-2007, 2009-2012  
Youth Minister & Moderator – St. Ferdinand Church 1999-2016

**VII. Professional Registration**

Registered Professional Engineer in the States of Missouri, Illinois, Kansas, and Arkansas

**VIII. Courses Instructed**

2014 – Shelter Insurance, Columbia, Missouri – *Mechanical Evaluations*  
2014 – Shelter Insurance, Columbia, Missouri – *Mechanical Evaluations: Sprinkler Systems, Plumbing Systems, HVAC Equipment*  
2016 – Haren Laughlin, Lenexa, Kansas – *Building Fire Suppression System Basics*  
2017 – IAAI Illinois Buxton/Mazzone Southern Zone Training Conference, Swansea, Illinois – *Mechanical Evaluations*  
2022 – IAAI Missouri – *Building and Kitchen Fire Suppression Systems, Gas Systems and Appliances*  
2024 – Brinker Doyen – *Fuel-Fired Appliance Fire Causes*  
2024 – IAAI Missouri – *Explosion Basics*  
2025 – Jefferson County Fire Marshall - *Mechanical Causations*

**IX. Publications**

Sovar, D. J. (2016). Fire Suppression Systems – Determining Liability. *Subrogator, Spring/Summer 2016*, 110-114.