

CURRICULUM VITAE

DOLORES OROZCO-CRUZ

CFPS, FIT, CFEI, MSc

Dolores Orozco is a fire safety engineer with international experience. She received her master's degree from Ghent University in Ghent, Belgium, where she also worked in the design of fire exhaust systems using computational modeling for customers in Belgium and the Netherlands. Ms. Orozco has four years of experience in Mexico working on local and international projects as a fire design engineer and adjuster in claims for the oil, gas, and chemistry industries. Dolores holds a certification as a Fire & Explosions Investigator from the National Association of Fire Investigators (NAFI-CFEI) and a Fire Investigator Technician from the International Association of Arson Investigators (IAAI-FIT)

Professional Experience

- **Engineering Associate**, Fire Cause Analysis, Los Angeles, CA 2021 to present
Fire dynamics modeling, fire protection risk analysis, Fire and Building Code compliance analysis, evidence and laboratory examinations, microscopy, x-ray, disassembly, and photography, site inspections, and fire protection design projects.
Forensic fire investigation. Forensic data gathering and the application of the scientific method.
O&C Fire investigations. Conducting site inspections, preliminary interviews, scene diagrams, photographic documentation, and performing investigations following the scientific method.
- **Fire Engineer Intern**, Brakel Aero, Melle, Belgium 2017
Designing smoke and heat exhaust ventilation systems (SHEVS), per Belgian regulations.
Computational Fluid Dynamics simulations using Fire Dynamic Simulator and Pyrosim for vehicle parks, industrial buildings and atria.
- **Adjuster**, Cunningham Lindsey, Mexico City, Mexico 2013 to 2015
Evaluation of damages caused by fire, natural disasters and fuel contamination for Oil & Gas and Chemical industry.
- **Fire Protection Engineer**, ICA Fluor Daniels, Mexico City, Mexico 2011 to 2013
Design of fire protection systems for Chemical and Oil & Gas facilities.
Elaboration of engineering documents such as firewater network, detection and alarm systems, and deluge systems P&I diagrams.

Education

FIRE INVESTIGATION · FORENSICS · FIRE SCIENCE & ENGINEERING

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- **MSc Fire Safety Engineering**, Ghent University, Belgium 2015 to 2018
Master Thesis - numerical simulations of pressure effects in the event of fire in passive houses. Supervisors: Dr. Tarek Beji and Professor Bart Merci.
- **BSc Chemical Engineering**, National Autonomous University of Mexico (UNAM), Mexico 2005 to 2010

Professional Designations and Certifications

- **Certified Fire & Explosion Investigator**, National Association of Fire Investigators (NAFI-CFEI) 2025 to present
Certification Number: 29666-17766
- **Fire Investigation Technician**, International Association of Arson Investigators (IAAI-FIT) 2022 to present
- **Certified Fire Protection Specialist**, National Fire Protection Association 2019 to present
Certification Number: 5139

Professional Licenses

- State of California Private Investigator License # PI11582

Professional Associations

- National Association of Fire Investigators - NAFI Number - 29666 2024 to present
- Society of Fire Protection Engineers, Southern California Chapter 2022 to present
- Society of Fire Protection Engineers, Mexico Chapter 2022 to present
- International Association of Arson Investigators 2021 to present
- Society of Fire Protection Engineers (SFPE) 2016 to present

Teaching Experience

- Combined Claims Conference - “*Fire Spread - Hidden Claims Exposures*” - Presentation, Anaheim, CA. May 2025
- Mercury Insurance - “*Fire Spread - Hidden Claims Exposures*” - Webinar - Berkeley, CA Oct 2024
- IASIU SoCal Chapter Monthly Meeting - “*Arson Investigations That Sizzle*” - Rancho Cucamonga, CA Jan 2024
- The Surplus Line Association of California - “*Earth, Wind, and Fire: Evaluating the Risk and Investigating the Cause*” August 2021

Professional Development

[H = Hours; TH = Tested Hours]

- **Fire Cause Analysis**
- Asbestos Awareness Training 11/26/2024 2.00 TH
- Lead Awareness Training for General Industry 11/22/2024 2.00 TH

Asbestos Awareness Training	08/16/2022	2.00 TH
Lead Awareness Training for General Industry	08/16/2022	2.00 TH
Asbestos Awareness Training	04/08/2021	2.00 TH
Lead Awareness Training for General Industry	04/05/2021	2.75 TH
Engineering and Evidence	02/16/2021	1.00 TH
• ATF Fire Investigation Training		
Origin Matrix Analysis & Smoking Materials as Ignition Sources	01/24/2024	16.00 TH
• State Fire Training		
Fire Investigator 1A: Basic Fire Investigation - FINV1A0213	07/18/2025	40.00 TH
• Society of Fire Protection Engineers (SFPE)		
Progress with Li-Ion Battery Fire Safety Engineering Solutions Symposium	06/11/2024	18.00 H
Introduction to Ethics for Fire Protection	12/11/2023	1.00 TH
On-Demand Access to SFPE22 Annual Conference Featured Sessions	01/24/2023	4.50 H
SFPE22 Annual Conference and Expo	10/17/2022	10.50 H
Fundamentals of Fire Investigation - The relationship between compartment fire dynamics and resulting post-incident damage patterns	08/31/2022	1.00 TH
Research in Fire Engineering: Development of Fire Protection Engineering practitioner tools		
Beyond the Cause and Origin: Engineering Analysis of Building Fire	06/18/2021	15.00 TH
• UL Firefighter Safety Research Institute		
The Science of Fire and Explosion Hazards from Lithium-Ion Batteries	12/13/2024	1.00 TH
Impact of Ventilation on Fire Patterns	01/21/2021	1.25 TH
• International Association of Arson Investigators - CFITrainer.net		
Physical Evidence at the Fire Scene	07/30/2025	4.00 TH
NFPA 1033 & 921: 2022/2021 Editions Important Updates	07/30/2025	3.00 TH
Evidence Examination: What Happens at the Lab?	07/29/2025	4.00 TH
Fire Dynamics in the Wildland	06/20/2025	3.00 TH
Fire Effects Part 2: Combustion By-Products Effects	06/20/2025	3.00 TH
Fire Effects Part 1: Heat Effects on Fuels	06/18/2025	3.00 TH
Fundamentals of Residential Building Construction	06/04/2025	3.00 TH
Critical Thinking Solves Cases	06/03/2025	4.00 TH
Understanding Undetermined	05/29/2025	3.00 TH
Commercial Kitchen Fires 2: Investigation	05/07/2025	3.00 TH
Emerging Technologies in Fire Investigation	04/24/2025	3.00 TH
The Deposition Part 2: Questioning Tactics and Effective Responses	04/24/2025	3.00 TH
Commercial Kitchen Fires 1: Fundamentals	04/24/2025	3.00 TH
Lithium-Ion Battery Fires	04/22/2025	3.00 TH
Introduction to Appliances	04/21/2025	3.00 TH
Post-flashover Fires	03/28/2025	4.00 TH
The Deposition Part 1: Format, Content, and Preparation	03/27/2025	3.00 TH
Writing the Initial Origin and Cause Report	03/27/2025	3.00 TH
Knowledge 1 Fire Dynamics Tier I	01/13/2025	15.00 TH
Critical Evaluation and Testing of Commonly Reported Accidental Causes	02/27/2023	3.00 TH
Arc Mapping Basics	02/27/2023	4.00 TH
Investigating Natural Gas Systems	02/22/2023	3.00 TH
Residential Natural Gas Systems	02/21/2023	3.00 TH

Fire Protection Systems	02/21/2023	3.00 TH
Fire Dynamics Calculations - Version 2.0	10/04/2022	4.00 TH
Explosion Dynamics	07/15/2021	4.00 TH
The Practical Application of the Relationship Between NFPA 1033 and NFPA 921	07/13/2021	2.00 TH
Thermometry, Heat, and Heat Transfer	07/13/2021	3.00 TH
NFPA 1033 and Your Career	07/12/2021	2.00 TH
Ethics and the Fire Investigator	07/08/2021	3.00 TH
The Scientific Method for Fire & Explosion Investigation	06/22/2021	3.00 TH
Basic Electricity	05/20/2021	4.00 TH
Documenting the Event	05/18/2021	3.00 TH
Introduction to Evidence	04/08/2021	4.00 TH
Digital Photography and the Fire Investigator	03/30/2021	4.00 TH
Electrical Safety	03/29/2021	3.00 TH
Fire Investigator Scene Safety	03/29/2021	3.00 TH
The Impact of Ventilation in Building Structures on Fire Development	03/25/2021	4.00 TH
Understanding Fire Through the Candle Experiment	03/18/2021	4.00 TH
Charting your Career Path in Fire Investigation	01/08/2021	3.00 TH
Introduction to Fire Dynamics and Modeling	05/27/2020	4.00 TH
Fire Flow Analysis	04/29/2020	3.00 TH
Fire Chemistry	04/27/2020	3.00 TH
● Ghent University		
Active Fire Protection I: Detection and Suppression	2016	180.00 TH
Active Fire Protection II: Smoke and Heat Control	2016	180.00 TH
Passive Fire Protection	2016	180.00 TH
FSE Based Firefighting	2016	90.00 TH
Fire Safety and Legislation	2016	90.00 TH
Explosions and Industrial Fire Safety	2016	180.00 TH
Fluid Mechanics Applications in Fire	2016	180.00 TH
Interaction between People and Fire	2016	180.00 TH
Introduction to Fire Dynamics	2015	270.00 TH
Thermodynamics, Heat and Mass Transfer	2015	180.00 TH