



HALLIWELL

DIANA SORIGUER

PHD IN FIRE SAFETY ENGINEERING

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SPECIALTIES

- Performance-based fire safety design and strategy
- Fire testing, risk assessment and compliance auditing
- Material characterization (LVL, adhesive polymer resins)
- Project and resource management across multidisciplinary teams
- Health and Safety coordination and regulatory compliance
- Environmental management and ISO certification (9001, 14001)
- Fire Testing competence: Cone Calorimeter, LIFT, FPA, Bomb Calorimeter, TGA/DSC, Hot Disk TPS 1500, Mid-IR FTIR (ATR): TGA/DSC, Hot Disk TPS, FTIR
- Fire Modelling & Risk Tools: FiRE, TRA

BIOGRAPHY

PhD-qualified Fire Safety Engineer with extensive experience in international consultancy and public sector environments. Expertise in implementation of performance-based fire safety strategies for complex projects across residential, mixed-use, and industrial developments. Skilled in project and resource management, compliance auditing, and multi-stakeholder coordination within both international and Spanish regulatory frameworks. Proven ability to deliver innovative, evidence-based solutions with precision and strategic foresight. Enthusiastic about mentoring engineering talent and leading projects that align with sustainability and innovation goals.

QUALIFICATIONS

PhD in Fire Safety Engineering, The University of Queensland, Australia (2024)

MSc in Geographic Information Systems & Remote Sensing, University of Extremadura, Spain (2010).

MSc in Engineering, University of Lleida, Spain (2007). Bachelor's in Forestry Engineering, University of Huelva, Spain (2005)

LANGUAGES & CERTIFICATIONS

- Spanish – Native | English – Proficient | German – A1 level
- Occupational Health & Safety Training (1250 hours): Safety, Industrial Hygiene, Ergonomics & Psychology (2006)

PROFESSIONAL EXPERIENCE

- Freelance Project & Safety Engineer, Spain & Germany (Nov 2024 – Present). Fire Safety Consultant at RED Fire Engineers, Australia & Remote (Jun 2020 – Mar 2024). PhD Candidate in Fire Safety Engineering, The University of Queensland, Australia (2017 – Jan 2024).

DIANA SORIGUER, PHD

FIRE SAFETY ENGINEER

- Regional & Project Manager at GPEX, Government of Extremadura, Spain (Feb 2009 – Apr 2012). Tender Manager at ACCIONA Medio Ambiente, Extremadura, Spain (Feb 2008 – Feb 2009). Tutor at The University of Queensland in Fire Safety Engineering courses (2016 – 2019).
- Large-Scale Experiments (6MW) research campaign for mass timber self-extinction design framework, Australia (2016, 2019, 2020).

REPRESENTATIVE ASSIGNMENTS

Fire Safety Engineering

Freelance Engineer | Malaga, Spain & Germany

Leading technical design and execution of projects as an independent fire safety and construction engineer. Responsible for drafting project documentation, managing site works, and performing Health and Safety coordination. Ensuring compliance with local building codes and safety regulations.

PhD Research – Fire Safety Engineering | Brisbane, Australia

Doctoral research focused on developing a parametric methodology to assess the fire performance of Laminated Veneer Lumber (LVL) across all fire stages. Identified critical variables such as thermophysical properties and thermal degradation behavior. Proposed enhancements to Australian Standards testing frameworks.

- Key Project Highlight: Led and participated in the Large-Scale Compartment Fire Experiments (6MW) testing campaigns (2016, 2019, 2020) aimed at developing a self-extinction design framework for mass timber structures.

Research & Government

GPEX – Government of Extremadura | Extremadura, Spain

Oversaw annual operations across 30,000 hectares of forestland, specializing in the design and implementation of large-scale forest fire prevention strategies. Supervised the execution of firebreaks, controlled clearings, and risk mitigation projects, ensuring adherence to environmental policies, technical specifications, and budgets. Conducted compliance audits to uphold strict Occupational Health and Safety standards during high-risk field operations.

ACCIONA Medio Ambiente | Extremadura, Spain

Managed competitive tender preparation, ensuring timely submission of compliant documentation. Conducted environmental monitoring of a photovoltaic solar plant. Coordinated with external auditors to achieve ISO 9001 and ISO 14001 certifications.

PUBLICATIONS

- Pope, I., Lucherini, A., et al., Diana Soriguer, et al. (2026). *Charring and in-depth thermal penetration within cross-laminated timber elements in large-scale compartment fires*. Fire Safety Journal, 163, 104817.
- Xu, H., Pope, I., et al., Diana Soriguer. (2022). *Large-scale compartment fires to develop a self-extinction design framework for mass timber-Part 1: Literature review and methodology*. Fire Safety Journal, 128, p.103523.

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- Yermán, L., Wall, H., et al., Diana Soriguer, et al. (2018). *Experimental study on the fuel requirements for the thermal degradation of bodies by means of open pyre cremation*. Fire Safety Journal.
- Emberley, R., Putynska, C.G., et al., Diana Soriguer, et al. (2017). *Description of small and large-scale cross laminated timber fire tests*. Fire Safety Journal, 91, pp.327-335.

CONFERENCE PAPERS & POSTERS

- Soriguer D., Torero J. L., Hidalgo J.P. (2017). Tailoring Improved Fire Performance of LVL through Flammability Characterisation. Poster, IAFSS Conference.
- Pope, I., Xu, H., et al., Diana Soriguer, et al. (2021). Fire dynamics in under-ventilated mass timber room compartments. AOSFST 2021.

SPEAKING ENGAGEMENTS

- Tutoring at The University of Queensland: Introduction to Fire Safety Engineering (2017-2018), Design of Timber Structures (2017), Graduate Certificate in Fire Safety (2016, 2017, 2019).
- Continuing Professional Development Course (CPD): External Fire Spread Risk in Tall Building Design (2017 & 2018).