

GIOVANNI COSMA

Bio

Giovanni is a fire safety professional with an international background obtained through many years spent across different European countries thanks to which he learned how to provide customer-focused engineered solutions tackling problems with an holistic attitude. His experience covers smoke and heat ventilation system design, CFD analysis and performance-based approach. His career has a focus on human behavior in fire, fire-fighting tactics and scenario-based design with a constant focus on teamwork, time management and lifelong learning.

Professional Highlights

SENIOR FIRE CONSULTANT & TEAM COORDINATOR, JENSEN HUGHES, 2019- PRESENT

Coordinates the Fire Safety Engineering department, oversees CFD and Performance-Based activities and provides smoke and heat ventilation safety consulting services while casting an eye to marketing and technical related tasks. Actively participates to National and International working groups within regulatory organizations to develop and keep updated fire safety codes.

ADJUNCT PROFESSOR, FREE UNIVERSITY OF BOZEN- BOLZANO, 2022 – PRESENT

Professor of the course of human behavior in fire (HBiF) including the effects and consequences of exposure to smoke. The program illustrates the different factors and conditions that can influence human behavior in the means of egress, providing a general overview of the behavioral theories currently used to carry out in-depth analyzes on the exodus of occupants. The classes cover the basic knowledge of the tools currently available on the market for evacuation analysis, while also evaluating evacuation-related multi-agent modeling tools, in particular gaining an understanding of the different approaches used to model geometry, population and the behavior of the simulated agents.

FIRE ENGINEER MANAGER, KINGSPAN LIGHT+AIR, 2018 – 2019

Actively participated to the redevelopment and restructuring of the technical department while overseeing some day-to-day operations of the office, including administration, supervision, marketing, and technical related tasks.

Education

MS, Fire Safety Engineering, Ghent University, Lund University and The University of Edinburgh, 2014

BS, Building Engineering, University Politecnico of Milan, 2012

Associations

Member, Society of Fire Protection Engineers (SFPE)

Member, International Association for Fire Safety Science (IAFSS)

Member, Institute of Fire Engineers (IFE)

Member, UNI 9494 WG4 – 2019-present

Delegate, CEN TC191 SC1

Former Member, Smoke Control Association (SCA)

Languages

Italian (first language)

English (fluent)

French (professional)

Dutch (basic)

Professional Highlights, Continued

SENIOR FIRE ENGINEER CONSULTANT, BRAKEL AIRVENT LTD, 2016 – 2018

Provided consulting services for a smoke extraction specialist company, including smoke extraction systems designing (both natural and mechanical) for every sort of building (residential, industrial, public building, train stations and loading bays).

FIRE ENGINEER CONSULTANT, AIRVENT SYSTEMS SERVICES LTD, 2014 – 2016

Reviewed fire strategies and checked projects' code compliance with British Standards such as BS9999, BS9991, BS7346, BS EN12101, BS5588, ADB, ADF, RRO2005, Building Act, CIBSE and SCA guidelines. CFD analysis and technical reporting was also covered. Worked with several engineering firms to design smoke and heat ventilation systems with the aim to minimize the costs of the construction works while obtaining the approval from Local fire department. This task was also carried out by using Computational Fluid Dynamic (CFD) software. Main daily tasks included:

- + Analysis of customer technical requirements and preparation of the technical proposal concerning the design of smoke and heat systems (natural or mechanical) for different building types.
- + Verification of project code compliance according to local regulations for new or existing buildings.
- + Fire modeling through CFD, drafting project technical sheets, support to project managers to ensure a correct installation and final commissioning, support to the Sales division in drafting tendering documents.
- + Support to the Marketing division and R&D division.

Project Highlights

Among projects of smoke and heat extraction systems developed and implemented, projects also included:

- + Snam Building, Milan, IT
- + STMicroelectronics, Agrate, IT
- + Manifattura Tabacchi, Florence, IT
- + C.so Italia 23, Milan, IT
- + La Rinascente Store, Rome, IT
- + 1 New Street Square, London, UK
- + Young Street RBKC, London, UK
- + Tunsgate Shopping Center, Guildford, UK
- + Grafton Shopping Center, Cambridge, UK
- + Cambridge Mosque, Cambridge, UK
- + RAF Base Hangar, Marham, UK

Notable Publications

"The impact of Sprinklers on structural fire resistance", Sprinkler Outlook, Issue 1/2021, European Fire Sprinkler Network, 2021

"L'analisi del rischio volta alla protezione del patrimonio culturale – caso studio", Rivista Antincendio, Issue 07/21, EPC Editore, 2021

"La valutazione della resistenza al fuoco con la curva dell'incendio naturale: Il ruolo dei sistemi di protezione", Rivista Antincendio, Issue 03/21, EPC Editore, 2021

“Way-Finding Lighting Systems for rail Tunnel Evacuation: A Virtual Reality Experiment with Oculus Rift”,
Journal of Transportation Safety & Security, Vol. 8, No. 51, 1–17, 2016