

FM GLOBAL POSITION PROFILE

TITLE: Postdoctoral Researcher – Fire Dynamics

DEPARTMENT/LOCATION: FM Global -- Research Division, Norwood, Massachusetts

DATE: Oct 26, 2020

Responsibilities

The purpose of this position is to develop new scientific knowledge, technologies and engineering solutions to problems in fire dynamics and material flammability, which can be used for the prevention or control of industrial property loss.

The principal responsibilities are to carry out research projects in the areas of flame diagnostics, material flammability, fire spread, flame extinction, heat and smoke generation, and heat transfer in fires. Key areas of research include advanced Lithium-ion battery fire hazard analysis, advanced laser diagnostic for buoyant turbulent flames, understanding of fire behavior at the medium and large scales via bench-scale experiments and theoretical models on material flammability and flame heat transfer. The experimental and theoretical studies will be closely integrated with Computational Fluid Dynamic (CFD) model development and validation within the work group.

The position is responsible for all aspects of project management including project proposals, execution, and reporting.

Qualifications

The position requires a PhD in Mechanical, Chemical Engineering, or related fields with a strong fundamental background in combustion, fluid mechanics, heat transfer, and applied mathematics. Extensive experience in experimental methods in thermal fluids, combustion/fire, and an understanding of associated numerical methods are required. Research experience with advanced laser diagnostics in flame and experimental measurement in turbulent flame is desirable. Also needed are excellent written and verbal communication skills, as well as demonstrated expertise in developing solutions to challenging technical problems.

Work authorization in US is required. (FM Global is an E-Verify employer and can participate in university OPT programs.) Salary are commensurate with qualifications and experience.

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