

POSITION TITLE: Senior Research Scientist

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

EFFECTIVE DATE: July 8, 2024

Responsibilities

The purpose of this position is to develop new scientific knowledge, engineering technologies, and innovative solutions to problems in explosion and blast protection, which can be used and applied by FM Global for mitigating industrial property loss. The primary responsibility of the position in FM Global is to plan, conduct, and communicate results of research projects in support of the critical business needs of FM Global. The principal responsibilities are to carry out internally funded research projects in the areas of explosion and blast. Key areas of research include understanding of gas and dust explosion mechanisms through laboratory- and large-scale experiments as well as engineering and numerical modeling, and developing cost-effective protection solutions for explosion and blast hazards. The experimental, theoretical and numerical studies will be closely integrated with testing at various scales and the research work will be conducted by collaborating within the working team and internal and external stakeholders. Additional components consist of performing focused studies and conveying their results in a form suitable for use by FM Global engineers. Long-range studies of fundamental nature will be balanced with applied research focused on critical business needs. The position is responsible for all aspects of project management including project proposal, execution, data analysis, budgeting, and documentation. In addition, the position is responsible for communicating and transferring research results for practical use within FM Global and, as appropriate, to outside organizations including the scientific/engineering communities and standard organizations. The position also acts as a consultant to FM Global business units as well as to insured clients.

Qualifications

The position requires a Ph.D. in Mechanical, Chemical, Aerospace 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 and combustion, and an understanding of associated numerical methods are required. Excellent written and verbal communication skills, as well as demonstrated expertise in developing solutions to challenging technical problems, and a fundamental understanding of the physics relevant to explosion phenomena are required. Title and salary are commensurate with qualifications and experience.

Application Online: <https://jobs-fmglobal.icims.com/jobs/14736/senior-research-scientist-explosion-protection/job?mode=view>

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