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Senior Research Scientist – Fire Detection and Suppression

Req ID: 1589

Location: Norwood, Massachusetts

Category: Research/Approvals

Position Type: full-time

Work Style: Works from an office location

Min Pay Rate: USD \$121,000.00/Yr.

Max Pay Rate: USD \$173,000.00/Yr.

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Job Description

Established nearly two centuries ago, FM is a leading mutual insurance company whose capital, scientific research capability and engineering expertise are solely dedicated to property risk management and the resilience of its policyholder-owners. These owners, who share the belief that the majority of property loss is preventable, represent many of the world's largest organizations, including one of every four Fortune 500 companies. They work with FM to better understand the hazards that can impact their business continuity to make cost-effective risk management decisions, combining property loss prevention with insurance protection.

FM is seeking a Senior Research Scientist to develop new scientific knowledge, technologies, and engineering solutions for problems related to fire detection and suppression. The position will directly contribute to industrial property loss prevention, with emphasis on critical business areas and emerging hazards such as data centers, renewable energy industries, automated storage facilities, and operations involving ignitable liquids.

Responsibilities



- Lead internally funded research projects to evaluate fire detection and suppression performance.
- Design experiments to support the development, calibration, and validation of physics-based or empirical models.
- Apply available modeling tools and analytical methods for effective problem solving.
- Interpret and analyze experimental and model data and prepare high-quality technical documentation.
- Communicate test methods, results, and engineering recommendations to internal and external stakeholders, including collaborators, clients, and industry partners.
- Manage all aspects of project management, including proposals, planning, execution, reporting, and engineering application.

Qualifications

- PhD in Mechanical, Chemical Engineering, Fire Protection Engineering, or a closely related field.
- Strong fundamental background in combustion, fluid mechanics, heat transfer, and applied mathematics.
- Research experience involving experimental and analytical methods in thermal fluids, heat transfer, and combustion/fire science, as well as a general understanding of associated numerical methods.
- Research experience in the field of fire detection and suppression research, and familiarity with advanced sensor technology, artificial intelligence integration, and machine learning concepts is highly desirable.
- Excellent written and verbal communication skills and a demonstrated ability to develop effective solutions to complex technical challenges.
- Strong interpersonal and teamwork skills, with the ability to productively collaborate in an interdisciplinary research environment.

The final salary offer will vary based on geographic location, individual education, skills, and experience. The position is eligible to participate in FM's comprehensive Total Rewards program that includes an incentive plan, generous health and well-being programs, a 401(k) and pension plan, career development opportunities, tuition reimbursement, flexible work, time off allowances and much more.

FM is an Equal Opportunity Employer and is committed to attracting, developing, and retaining a diverse workforce.

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