



Earn 14 AIA Learning Units in Health, Safety, & Welfare

## HAWAII SFPE SEMINAR PRESENTATIONS

# ***FIRE & LIFE SAFETY DESIGN OF VERY TALL BUILDINGS and UNDERSTANDING HUMAN BEHAVIOR IN FIRES***

The **Hawaii Chapter of the Society of Fire Protection Engineers** is sponsoring these two excellent one-day seminars through a special arrangement with the International Society of Fire Protection Engineers. We expect this seminar to sell out quickly.

Sponsored by: **Hawaii Chapter, Society of Fire Protection Engineers**

Date & Time:	Tall Buildings	Tuesday	February 12, 2019	8:00 AM - 4:00 pm
	Human Behavior	Wednesday	February 13, 2019	8:00 AM - 4:00 pm

Location: Hale Ikena, Fort Shafter Golf Clubhouse

Cost: **\$200**

For information contact: Sam Dannaway, Program Chairman  
Hawaii Chapter SFPE, Tel: (808) 526-9019/Email: [dannaways@coffman.com](mailto:dannaways@coffman.com)

**ONLINE REGISTRATION & PAYMENT AVAILABLE AT**  
**<http://sfpehawaii.memberlodge.org>**

# These are not code seminars. Both seminars will present current fire protection engineering concepts that can be used in advanced performance-based designs.

**Day 1 - Fire and Life Safety Design of Very Tall Buildings:** This one-day seminar will explore a wide range of fire and life safety challenges associated with very tall buildings and strategies to address them. To enhance learning, attendees will be asked to participate in simple, qualitative hazard, risk or reliability analyses, fire and life safety strategy development for representative building configurations and fire scenarios, and fire safety management and evacuation planning exercises. The topics and sequence will generally follow those embodied in the SFPE Engineering Guide: Fire Safety for Very Tall Buildings. Content includes an overview of fire events in tall buildings, highlighting issues of concern and lessons learned. Emerging trends in very tall building design, which may have implications for fire and life safety performance, will be discussed.

**Learning Objectives:** Upon completion, the participant will be able to:

- Identify the potential impacts of new and emerging technologies and design features on fire and life safety performance in very tall buildings,
- Explain how hazard, risk and reliability analysis can help identify and assess scenarios of concern and potential mitigation options.
- Explain the roles that occupant risk perception and situation awareness might have on the selection and operation of defend in place and evacuation strategies.
- Distinguish the impact of building design decisions on factors such as smoke control, fire spread and structural fire resiliency.
- Understand systems reliability and robustness issues.

## **Day 2 - Understanding Human Behavior in Fires**

The prediction of human behavior during a fire emergency is one of the most challenging areas of fire protection engineering. Yet, understanding and considering human factors is essential to designing effective evacuation systems, ensuring safety during a fire and related emergency events.

The course will present the many types of characteristics that may influence occupant performance, reaction and movement process in an emergency situation. It will present the concepts that inform our understanding of the flow of information to occupants via cues from the fire, building or people in a fire situation and the resultant decision-making processes that influence their protective action responses during the fire

incident. Discussions will also address the effects of the exposure fire combustion products.

The course will focus on modeling human behavior in fire and will include a discussion on the development and selection of occupant behavioral scenarios. The course will also discuss the many considerations that affect the choice of a particular calculation approach or model, such as project data needed, model input data needed, complexity of scenario(s), detail of output needed, and need to assess the impact of behavioral assumptions.

The seminar will address fire situation management and will include discussions on enhancing human response to emergency notification and messaging and managing the movement of occupants during fire emergencies

**Learning Objectives:** Upon completion, the participant will be able to:

- Understand the many types of characteristics that may influence occupant performance, reaction and movement process in an emergency situation.
- Understand the theory and process of individuals or groups of occupants taking protective actions in the context of the building fire emergency timeline.
- Understand how fire effluents can lead to incapacitation of people subject to the hazards of a fire.
- Obtain guidance to assist in developing occupant behavioral scenarios as part of a performance-based design.
- Understand the basic concepts of occupant movement and how to estimate the time for occupants to move to a place of safety or refuge.
- Obtain understanding and guidance for the selection of one of the various methods of performing egress calculations.
- Develop an understanding of the various sources of uncertainty in a human behavior analysis.
- Understand how people process emergency warning information and examine factors that may inhibit the process.
- Consider the numerous factors that play a role in the use of evacuation, relocation, and protect-in-place strategies when deciding how building occupants can best be safeguarded during fire emergencies.

**Cost: \$200 for the two days.**

Telephone reservations will be accepted provided they are followed by written confirmation and payment.

Seminar attendees will receive a seminar workbook, certificate of completion, and 1.4 ceu's or **14 AIA Learning Units in the Health, Safety, & Welfare category.**

**Instructor:** The seminar will be taught by Chris Jelenewicz, PE, FSFPE, Technical Director for the Society of Fire Protection Engineers. Mr. Jelenewicz is Editor-in-Chief for the upcoming 6th edition of the SFPE Fire Protection Engineering Handbook. He is also chair of the NFPA 101 Technical Committee on Fundamentals.

**Location:** The seminar will be held at Hale Ikena, the Golf Clubhouse at Fort Shafter, Honolulu, Hawaii. A map can be downloaded from the website at [www.sfpehawaii.org](http://www.sfpehawaii.org). Parking is available at no charge.

**Payment: ONLINE REGISTRATION & PAYMENT AT <http://sfpehawaii.memberlodge.org>** or by credit card charges over the phone. Payment may also be made by check or money order accompanying the Registration Form below. Make checks payable to **Hawaii Chapter SFPE** and mail to Hawaii Chapter SFPE, c/o 501 Sumner Street, Suite 421, Honolulu, Hawaii 96817.

## REGISTRATION FORM

February 12-13, 2019

Hale Ikena Golf Clubhouse, Fort Shafter, Honolulu, Hawaii

***FIRE & LIFE SAFETY DESIGN OF VERY TALL BUILDINGS  
and  
UNDERSTANDING HUMAN BEHAVIOR IN FIRES***

Name \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

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City State Zip Code Telephone

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Email address

**Cost: \$200**

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Mail to: Hawaii Chapter SFPE, 501 Sumner St, Suite 421, Honolulu, HI 96817