

1. Record Nr.	UNINA9910830665003321
Autore	Yung David Tin Lam
Titolo	Principles of fire risk assessment in buildings [[electronic resource] /] / David Tin Lam Yung
Pubbl/distr/stampa	Chichester, West Sussex, U.K. ; ; Hoboken, N.J., : Wiley, c2009
ISBN	1-61344-915-1 1-282-68936-3 9786612689369 0-470-71406-9 0-470-71405-0
Descrizione fisica	1 online resource (247 p.)
Disciplina	363.37/6 363.376
Soggetti	Fire risk assessment Fire prevention
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Principles of Fire Risk Assessment in Buildings; Contents; About the Authors; Preface; Acknowledgments; List of Symbols; 1 Introduction; PART I Simple Approach to Fire Risk Assessment; 2 What is Fire Risk Assessment?; 2.1 Overview; 2.2 What is Fire Risk Assessment?; 2.3 Summary; 2.4 Review Questions; References; 3 Fire Risk Assessment Based on Past Fire Experience; 3.1 Overview; 3.2 Based on Past Fire Experience; 3.3 Based on Fire Incident Data; 3.4 Summary; 3.5 Review Questions; References; 4 Qualitative Fire Risk Assessment; 4.1 Overview; 4.2 Risk Matrix; 4.3 Checklist Method 4.4 Event-Tree Method4.5 Summary; 4.6 Review Questions; References; 5 Quantitative Fire Risk Assessment; 5.1 Overview; 5.2 Risk Indexing; 5.3 Checklist Method; 5.4 Event-Tree Method; 5.5 Summary; 5.6 Review Questions; References; PART II Fundamental Approach to Fire Risk Assessment; 6 Fundamental Approach to Fire Risk Assessment; 7 Fire Growth Scenarios; 7.1 Overview; 7.2 Compartment Fire Characteristics; 7.3 Fire Model Input and Output Parameters; 7.4 Design Fires; 7.5 Automatic Fire Suppression to Control Fire Growth;

7.6 Summary; 7.7 Review Questions; References
8 Fire Spread Probabilities8.1 Overview; 8.2 Fire Resistant Construction;
8.3 Probability of Failure; 8.4 Fire Spread Probabilities; 8.5 Summary;
8.6 Review Questions; References; 9 Smoke Spread Scenarios; 9.1
Overview; 9.2 Smoke Spread Characteristics and Modelling; 9.3 Smoke
Control Systems to Clear Smoke in Evacuation Routes; 9.4 Summary;
9.5 Review Questions; References; 10 Occupant Evacuation Scenarios;
10.1 Overview; 10.2 Occupant Evacuation Characteristics and
Modelling; 10.3 Occupant Safety Measures to Expedite Occupant
Response and Evacuation; 10.4 Summary; 10.5 Review Questions
References11 Fire Department Response; 11.1 Overview; 11.2 Fire
Department Response Time and Resources; 11.3 Occupant Fatality and
Property Loss Modelling; 11.4 Fire Protection Measures to Provide
Effective Occupant Rescue and Fire Extinguishment Efforts; 11.5
Summary; 11.6 Review Questions; References; 12 Uncertainty
Considerations; 12.1 Overview; 12.2 What Are the Uncertainties?; 12.3
Treatment of Uncertainty; 12.4 Summary; 12.5 Review Questions;
References; 13 Fire Risk Management; 13.1 Overview; 13.2 Fire Risk
Management; 13.3 Alternative Fire Safety Designs
13.4 Impact of Inspection and Maintenance on System Reliability13.5
Impact of Evacuation Drills on Early Occupant Response and Evacuation;
13.6 Summary; 13.7 Review Questions; References; Index

Sommario/riassunto

This book arrives at just the right time to facilitate understanding of performance-based fire risk assessment in buildings - an integral part of the global shift in policy away from traditional prescriptive codes. Yung, an internationally recognised expert on the subject of fire risk assessment, introduces the basic principles and techniques that help the reader to understand the various methodologies that are currently in place or being proposed by different organisations. Through his illustration of basic principles and techniques he enables the reader to conduct their own fire risk asses
