

1. Record Nr.	UNISALENTO991003226439707536
Autore	Mobley, R. Keith, 1943-
Titolo	Root cause failure analysis [e-book] / R. Keith Mobley
Pubbl/distr/stampa	Boston : Newnes, c1999
ISBN	9780750671583 0750671580
Descrizione fisica	vi, 308 p. : ill. ; 25 cm
Collana	Plant engineering maintenance series
Disciplina	658.202
Soggetti	Plant maintenance System failures (Engineering) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Risorsa elettronica
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (p. 305) and index
Nota di contenuto	PART ONE: RCFA Methods: Introduction; General Analysis Techniques; Root Cause Failure Analysis Methodology; Safety Related Issues; Regulatory Compliance Issues; Process Performance -- PART TWO: Equipment Fundamentals: Pumps; Fans, Blowers, and Fluidizers; Conveyors; Compressors; Mixers and Agitators; Dust Collectors; Process Rolls; Gearboxes/Reducers; Steam Traps; Inverters; Control Valves; Seals and Packing. -- PART THREE: Troubleshooting Guide: Pumps; Fans and Blowers; Conveyors; Compressors; Mixers and Agitators; Dust Collectors; Process Rolls; Gearboxes/Reducers; Steam Traps; Inverters; Control Valves; Seals and Packing.
Sommario/riassunto	Root Cause Failure Analysis provides the concepts needed to effectively perform industrial troubleshooting investigations. It describes the methodology to perform Root Cause Failure Analysis (RCFA), one of the hottest topics currently in maintenance engineering. It also includes detailed equipment design and troubleshooting guidelines, which are needed to perform RCFA on machinery found in most production facilities. This is the latest book in a new series published by Butterworth-Heinemann in association with PLANT ENGINEERING magazine. PLANT ENGINEERING fills a unique information need for the men and women who operate and maintain industrial plants. It bridges the information gap between engineering education and practical

application. As technology advances at increasingly faster rates, this information service is becoming more and more important. Since its first issue in 1947, PLANT ENGINEERING has stood as the leading problem-solving information source for America's industrial plant engineers, and this book series will effectively contribute to that resource and reputation. Provides information essential to industrial troubleshooting investigations Describes the methods of root cause failure analysis, a hot topic in maintenance engineering Includes detailed equipment-design guidelines

2. Record Nr.	UNINA9910253982303321
Autore	Yao Ye
Titolo	Modeling and Control in Air-conditioning Systems / / by Ye Yao, Yuebin Yu
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2017
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXI, 479 p. 272 illus., 46 illus. in color.)
Collana	Energy and Environment Research in China, , 2197-0238
Disciplina	697.93
Soggetti	Energy consumption Building construction Mathematical models Sustainable development Energy Efficiency Building Physics, HVAC Mathematical Modeling and Industrial Mathematics Sustainable Development
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- State-space modelling for air-conditioning system -- Modelling based on graph theory and structure-matrix theory -- Control design based on state-space model -- Air-conditioning load forecasting model -- Optimal operation and energy analysis modelling

for air-conditioning system -- Thermal comfort of human body indoors  
-- Multizone network modelling of building ventilation and  
contaminant transport -- Computational fluid dynamics of building  
environment -- Coupled multizone and CFD modelling of building  
environment -- New trends of advanced modelling of building  
environment.

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## Sommario/riassunto

This book investigates the latest modeling and control technologies in the context of air-conditioning systems. Firstly, it introduces the state-space method for developing dynamic models of all components in a central air-conditioning system. The models are primarily nonlinear and based on the fundamental principle of energy and mass conservation, and are transformed into state-space form through linearization. The book goes on to describe and discuss the state-space models with the help of graph theory and the structure-matrix theory. Subsequently, virtual sensor calibration and virtual sensing methods (which are very useful for real system control) are illustrated together with a case study. Model-based predictive control and state-space feedback control are applied to air-conditioning systems to yield better local control, while the air-side synergic control scheme and a global optimization strategy based on the decomposition-coordination method are developed so as to achieve energy conservation in the central air-conditioning system. Lastly, control strategies for VAV systems including total air volume control and trim & response static pressure control are investigated in practice. .

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