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Altri autori (Persone)	FolkCharles L Boehm-DavisDeborah Ann
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Nota di contenuto	Machine generated contents note: Section 1 Historical Perspective Preface References Chapter 1: Natural and Engineered Systems Purposeful design User-centered design Designing against failure References Chapter 2: Historical Roots Engineering for physical limitations Size Strength Speed and Efficiency Engineering for human cognition Writing Number Systems Point and Click Interfaces The Modern Era Aviation The digital computer A Fractured Field Human Factors/Ergonomics Human-Computer Interaction Human-Systems Integration Summary References Chapter 3: The Current Practice Aerospace The human-systems specialist in aerospace Medicine The human-systems specialist in medicine Automotive industry The human-systems specialist in the automotive industry Computer Industry The human-systems specialist in human-computer interface Summary References Section 2 The Environment Preface References Chapter 4: The Varied Nature of Environments Static vs. Dynamic Domains Sources of Difficulty in Static Environments Modes Comprehension Sources of Difficulty in Dynamic Environments Lag

Plant dynamics Control order Perturbation and Noise Internal vs. External Pacing Error Tolerance Summary References Chapter 5: The Social Context Methodological consequences of group size Length/Variability of Response Times Methods of Study and Analysis Communication and Coordination Consequences of Group Size Summary References Chapter 6: Analysis Techniques Modeling Static Environments: Finite state representations Modeling Dynamic Environments Control Theory Signal Detection Theory Task Analysis Measuring Complexity using Information Theory Modeling Throughput using Queuing theory Summary References Section 3 The Human Element Preface References Chapter 7: Determinants of Human Behavior The Human Factor Structure and content Levels of Analysis References Chapter 8: The Structure of Human Information Processing Processing Stages Cognition and Action Cognition and Goal-Directed Behavior Response Selection The Hick-Hyman Law Compatibility The Nature of Capacity Limitations References Chapter 9: Acquiring Information Sensory Processing Vision Visual Acuity Color Vision Audition Sensory Processing Summary Attention Selective Attention Resource and Data Limits Controlling Attention References Chapter 10: Central Processing Limitations on Multitasking Bottleneck Theories Central Bottleneck Theory The Psychological Refactory Period Paradigm Central Bottleneck Theory and Driving Central Bottleneck Theory and Human Computer Interaction Fitts' Law Project Ernestine Capacity Theories Complexity in Resource Allocation Allocation of Limited-Capacity Resources Multiple Resource Theory Using Multiple Resource Theory Applications of Single-Channel and Multiple Resource Theories Timesharing Task Switching Costs Cognitive Operations in Task Switching Timesharing Strategies and the Control of Processing Speed-Accuracy Trade-Off Optimal Strategies Summary References Chapter 11: Memory Types of Memories Short Term memory Working Memory Long Term Memory Episodic versus Semantic Memory Retaining and Forgetting Information Interference Forgetting to remember to remember: Prospective memory Retrieving Information Short-term memory retrieval Long-term memory retrieval Summary References Chapter 12: Decision-making Anatomy of a Decision Normative Approaches to Decision-Making Rational Decisions Bayes Theorem Utility and Expected Value Non-Optimality of Human Decisions Failure to Consider Base Rate Information Judging Numerical Quantities Failure to Appreciate Statistical Properties Cognitive Approaches to Decision-Making Confirmation Bias Framing Effects Overconfidence Heuristics in Human Decisions Availability Representativeness Anchoring The Use of Heuristics Other Influences on Decision Making Process Models of Human Decision-Making Naturalistic decision-making Relationship between decision-making models and systems engineering References Section 4 Human-Systems Integration Preface References Chapter 13: A Case Study in Human-Systems Performance: The Exxon Valdez An Account of the Grounding of the Tankship Exxon Valdez The Nature of the Error Mode Errors Control Dynamics & Detection Times Time Estimation Decision Biases Multitasking Summary References Chapter 14: Human Error Human Error and System Error The Nature of Human Error Theories of Human Error Error Types Error Forms Situation Awareness Situation Awareness in Individuals Situation Awareness of Teams Cognitive Processing in Establishing SA Measuring SA Inferring SA from Eye Fixation Patterns Summary of Situation Awareness Summary References Chapter 15: Contextual Factors affecting Human-Systems Performance Workload Defining and Measuring Workload Summary Interruption Operator State Fatigue Sleep Deprivation and Circadian Rhythms Summary References Chapter 16: The Role of

	Human-Automation Partnerships in Human-System Performance Automation Using Automated Devices Levels of Automation A Taxonomy of Automation Levels Automation as a Decision Support Aid Automation and System Safety Summary References Chapter 17: Supporting Human-System Performance Alarms and Alerts What are the sensory characteristics of good alerts and alarms? What are the design considerations in alerts and alarms? What are the human factors issues with alerts and alarms? Information Displays Transform information to take advantage of our perceptual system Match the perceptual cues to the nature of the judgment Choose perceptual depictions that are compatible with internal representations Provide Feedback Use presentation techniques that minimize demand for focal visual attention Use perceptual distinctions that match visual and auditory capabilities Apply the Proximity Compatibility Principle Create Barriers Summary References .
Sommario/riassunto	"This book provides a repository of cases and articles on the broad applications of human factors knowledge across the globe. Written by highly experienced authors in this field, this book takes a control theory perspective and uses control diagrams to illustrate the relationships and interactions between the various knowledge areas and applications. A web-based archive of articles, cases, examples and exercises from across the range of knowledge areas and applications is provided as well"-- "The contents are organized around the flow of information in control-theoretic diagrams that link the various system elements, including the human element, to guide the analysis of real-world situations"--

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Autore	Koslowsky Meni
Titolo	Modelling the stress-strain relationship in work settings / / Meni Koslowsky
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 189-212) and index.
Nota di contenuto	Preliminaries; CONTENTS; List of figures and tables; 1 Introduction; 2 Theories of organizational stress; 3 Stressors; 4 Extra-organizational stressors; 5 Stress assessment instruments; 6 Psychological and physiological reactions; 7 Behavioral consequences of stress; 8 Mediators and moderators; 9 Modeling the stress...strain process; 10 General methodological issues; References; Index
Sommario/riassunto	Meni Koslowsky presents here for the first time a way of modelling stress-strain that will enable researchers to both assess examples from the literature and correctly define and use the model in their own investigations. All stages from construction of the model to data analysis are covered, along with possible pitfalls.This book enables investigators to develop and test models for describing stress phenomena in their own settings. It provides an essential research tool for all those who assess stress and strain in their working lives.