1. Record Nr. UNINA9910298075503321

Autore	Kluge Annette
Titolo	The Acquisition of Knowledge and Skills for Taskwork and Teamwork to Control Complex Technical Systems : A Cognitive and Macroergonomics Perspective / / by Annette Kluge
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
ISBN	94-007-5049-8
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (201 p.)
Disciplina	658.31245
Soggetti	Psychology, Industrial Operations research Management science Continuing education Adult education Industrial and Organizational Psychology Operations Research, Management Science Lifelong Learning/Adult Education
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 at the end of each chapters and index.
Nota di contenuto	Chapter 1: Why this Book has been Written: Purpose and Structure of the Book -- Chapter 2: Controlling Complex Technical Systems: The Control Room Operator’s Tasks in Process Industries -- Chapter 3: Required Knowledge and Skills to Control a Complex Technical System - Job Analysis Related to Training -- Chapter 4: Basic Learning Processes and Supportive Learning Mechanisms for Task Work and Teamwork to Control Complex Systems -- Chapter 5: Training Design for Instance-Based Learning – The "Staged Process Control Readiness Training" (SPCRT).
Sommario/riassunto	This book provides the first comprehensive literature review on the acquisition and retention of complex skills in High Reliability Organizations. Based on this review, it introduces a theoretical model of how skill and knowledge acquisition for complex tasks is accomplished and shows how this model can be used to derive training

methods and instructional techniques. Successful acquisition and retention of complex technical skills within High Reliability Organizations requires a full understanding of the learning process, knowledge structure, and skill requirements associated with the effective operation and management of technology. For researchers and for organizations, the understanding of these processes is vital for designing training programs as well as for reducing errors with severe consequences for human lives and the environment. Until now, only theoretical fragments exist on this topic, and only a very limited number of publications actually address complex tasks in vocational/occupational settings. “The Acquisition of Knowledge and Skills for Task Work and Teamwork to Control Complex Technical Systems ” uses its literature overview and theoretical model to formulate training principles, that can be used to develop training experiments for further empirical investigations as well as training methods for applied organizational contexts.