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Nota di contenuto	Cover; Title Page ; Copyright; Contents; Foreword; Introduction; Part 1. Design of Human-Machine Systems; Chapter 1. Human-Centered Design; 1.1. Introduction; 1.2. The task-system-operator triangle; 1.2.1. Controlling the diversity of the tasks depending on the situation; 1.2.2. Managing the complexity of the system; 1.2.3. Managing human complexity; 1.3. Organization of the human-machine system; 1.3.1. The ambiguous role of the operator in automated systems; 1.3.2. Allocating humans with their proper role; 1.3.3. Sharing tasks and functions between humans and machines 1.4. Human-centered design methodology 1.5. Conclusion; 1.6. Bibliography; Chapter 2. Integration Of Ergonomics In The Design Of Human-Machine Systems; 2.1. Introduction; 2.2. Classic and partial approaches of the system; 2.2.1. Machine-centered approach; 2.2.2. Activity and human-based approaches; 2.3. The central notion of performance (Long, Dowell and Timmer); 2.4. An integrated approach: cognitive work analysis; 2.4.1. Domain analysis; 2.4.2. Task analysis; 2.4.3. Analysis of information-processing strategies; 2.4.4. Socio-

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accidents; 3.3.2. Particular case of urban areas; 3.4. A priori analyses;  
3.5. What assistance for which needs?; 3.5.1. Collision with a stationary  
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the front; 3.5.5. Dense line: violent accident happening just in front;  
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Automobile Driving; 4.1. Introduction; 4.2. The different models used  
in detection and diagnosis; 4.2.1. Methods based on knowledge models  
4.2.2. Classification methods: pattern recognition

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#### Sommario/riassunto

This book on the ergonomics of man-machine systems is aimed at engineers specializing in informatics, automation, production or robotics, and who are confronted with an important dilemma during the conception of man-machine systems: - on the one hand, the human operator guarantees the reliability of the system and he has been known to salvage numerous critical situation through an ability for reason in unplanned, imprecise and uncertain situations; - on the other hand, the human operator can be unpredictable and create disturbances in the automated system. The first part

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