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Sommario/riassunto This book focuses on the importance of human factors in the development of safe and reliable robotic and unmanned systems. It discusses current challenges, such as how to improve the perceptual and cognitive abilities of robots, develop suitable synthetic vision systems, cope with degraded reliability in unmanned systems, and predict robotic behavior in relation to human activities. Further, it highlights potential future human-robot and human-agent collaboration, suggesting real-world implications of and approaches for improving human-machine interaction across unmanned systems.

Based on the AHFE 2020 Virtual Conference on Human Factors in Robots, Drones and Unmanned Systems, held on July 16–20, 2020, this book is intended to foster discussion and collaborations among researchers and practitioners, thus stimulating new solutions for the development of reliable and safe, human-centered, highly functional devices to perform automated and concurrent tasks.