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Nota di contenuto	Part I: Introduction -- Chapter 1. Flight 4.0: The Changing Technology Landscape of Aeronautics (Umut Durak) -- Part II: Information and Communication Technologies supporting Flight 4.0 -- Chapter 2. Advances in Avionic Platforms: Multi-Core Systems (Falco K. Bapp) -- Chapter 3. Emerging Trends in Avionics Networking (Andreas Reinhardt) -- Chapter 4. IoT and Service Oriented Infrastructures for Flight 4.0 (Christos P. Antonopoulos) -- Chapter 5. Big Data and Data Analytics in Aeronautics (Gerrit Burmester) -- Chapter 6. Ontologies in Aeronautics (Carlos Insaurralde) -- Chapter 7. Advances in Software Engineering and Aeronautics (Shafagh Jafer) -- Part III: The Challenges -- Chapter 8. Towards Autonomy and Safety For Unmanned Aircraft

	Systems (Christoph Torens) -- Chapter 9. Keeping up with Real Time (Reinhard Wilhelm) -- Chapter 10. Aerospace Engineering Curricular Expansion in Information Systems (Ella M. Atkins).
Sommario/riassunto	The history of flight started with the pioneer era. The introduction of mechanical controls (including hydraulics) then led to the second era. Later, with the utilization of computers and automation in aircraft, we reached the third era. Now, we are moving towards the fourth era of flight, namely Flight 4.0, which is characterized by “smart” and “connected” aircraft that extensively exploit emerging information and communication technologies. Aeronautical informatics is advancing rapidly through the synergy between information and communication technologies and aeronautics. Multi-core avionic platforms, wireless avionics networking, service-oriented architectures and IoT, data sciences and semantic infrastructures are shaping systems to come. Increasing autonomy requirements are challenging the community to investigate new ways to assure safety. Modern software engineering methodologies and real-time software techniques are altering the established development practice. Universities are starting to align their aerospace engineering and computer science curriculums in order to address this synergy. This book is a unique compilation of advancements in aeronautical informatics, introducing the changing technology landscape of flight with respect to a new push in information and communication technology.