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Nota di contenuto	Introduction -- Aerial Robots with Arms: Design, Modelling, and Mechatronics Aspects -- Control of Aerial Manipulators -- Perception for Aerial Robotic Manipulation -- Planning for Aerial Robotic Manipulation -- Applications -- Conclusions and Future Directions.
Sommario/riassunto	Aerial robotic manipulation integrates concepts and technologies coming from unmanned aerial systems and robotics manipulation. It includes not only kinematic, dynamics, aerodynamics and control but also perception, planning, design aspects, mechatronics and cooperation between several aerial robotics manipulators. All these topics are considered in this book in which the main research and development approaches in aerial robotic manipulation are presented, including the description of relevant systems. In addition of the research aspects, the book also includes the deployment of real systems both indoors and outdoors, which is a relevant characteristic of the book because most results of aerial robotic manipulation have been validated only indoor using motion tracking systems. Moreover,

the book presents two relevant applications: structure assembly and inspection and maintenance, which has started to be applied in the industry. The Chapters of the book will present results of two main European Robotics Projects in aerial robotics manipulation: FP7 ARCAS and H2020 AEROARMS. FP7 ARCAS defined the basic concepts on aerial robotic manipulation, including cooperative manipulation. The H2020 AEROARMS on aerial robot with multiple arms and advanced manipulation capabilities for inspection and maintenance has two general objectives: (1) development of advanced aerial robotic manipulation methods and technologies, including manipulation with dual arms and multi-directional thrusters aerial platforms; and (2) application to the inspection and maintenance.
