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Descrizione fisica	1 online resource (187 pages)
Disciplina	624.072
Soggetti	Buildings - Design and construction Building materials Buildings - Repair and reconstruction Buildings - Maintenance System theory Building Construction and Design Building Materials Building Repair and Maintenance Complex Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Building energy performance research -- Urban energy performance research -- Environmental indoor air quality research -- Environmental life cycle assessment -- Lighting and daylighting research -- Thermal comfort research.
Sommario/riassunto	This book covers the range of methodological approaches, methods and tools currently used in various areas of building science and technology research and addresses the current lack of research-method literature in this field. The book covers the use of measurement-based methods in which data is collected by measuring the properties and their variations in ‘actual’ physical systems, simulation-based methods which work with ‘models’ of systems or processes to describe, examine and analyze their behaviors, performances and operations, and data-driven methodologies in which data is collected via measurement or simulation to identify and

examine the associations and patterns and predict the future in a targeted system. The book presents a survey of key methodologies in various specialized areas of building science and technology research including window systems, building enclosure, energy performance, lighting and daylighting, computational fluid dynamics, indoor and outdoor thermal comfort, and life cycle environmental impacts. Provides advanced insight into the research methods and presents the key methodologies within the field of building science and technology. Reviews simulation-based and experimentation/field-based methods of data collection and analysis in diverse areas of building science and technology, such as energy performance, window and enclosure studies, environmental LCA, daylighting, CFD, and thermal comfort. Provides a range of perspectives from building science faculty and researcher contributors with diverse research interests. Appropriate for use in university courses.