1.	Record Nr.	UNINA9910299235503321
	Titolo	Green in Software Engineering / / edited by Coral Calero, Mario Piattini
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
	ISBN	3-319-08581-6
	Edizione	[1st ed. 2015.]
	Descrizione fisica	1 online resource (329 p.)
	Disciplina	004 005.1 005.74 338.47004 338.927 658514
	Soggetti	Software engineering Management information systems Computer science Sustainable development Management Industrial management Computer industry Computers and civilization Software Engineering Management of Computing and Information Systems Sustainable Development Innovation/Technology Management The Computer Industry Computers and Society
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	Part I Introduction -- 1 Introduction to Green in Software Engineering -- Part II Environments, Processes and Construction -- 2 Green

Software Engineering Environments -- 3 Processes for Green and Sustainable Software Engineering -- 4 Constructing Green Software Services: from Service Models to Cloud-based Architecture -- Part III Economic and Other Qualities -- 5 Economic Aspects of Green ICT -- 6 Green Software Quality Factors -- Part IV Software Development Process -- 7 From Requirements Engineering to Green Requirements Engineering -- 8 Towards Green Software Testing -- 9 Green Software Maintenance -- 10 Green Software and Software Quality -- 11 Green Software Measurement -- Part V Practical Issues -- 12 A Decision Making Model for Adopting GreenICT Strategies -- 13 Participation and Open Innovation for Sustainable Software Engineering.

Sommario/riassunto	This is the first book that presents a comprehensive overview of sustainability aspects in software engineering. Its format follows the structure of the SWEBOK and covers the key areas involved in the incorporation of green aspects in software engineering, encompassing topics from requirement elicitation to quality assurance and maintenance, while also considering professional practices and economic aspects. The book consists of thirteen chapters, which are structured in five parts. First the "Introduction" gives an overview of the primary general concepts related to Green IT, discussing what Green in Software Engineering is, and how it differs from Green by Software Engineering. Next "Environments, Processes and Construction" presents green software development environments, green software engineering processes, and green software construction in general. The third part, "Economic and Other Qualities," details models for measuring how well software supports green software engineering techniques, and for performing trade-off analyses between alternative green practices from an economic perspective. "Software Development Process" then details techniques for incorporating green aspects at various stages of software development, including requirements engineering, design, testing, and maintenance. In closing, "Practical Issues" addresses the repercussions of green software engineering on decision-making, stakeholder participation, and innovation management. The audience for this book includes software engineering researchers in academia and industry seeking to understand the challenges and impact of green aspects in software engineering, as well as practitioners interested in learning about the state of the art in Green in Software Engineering.