

1. Record Nr.	UNINA9910855369303321
Autore	Nagl Manfred
Titolo	Software Architectures : Topics Usually Missed in Textbooks / / by Manfred Nagl, Bernhard Westfechtel
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031513350
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (344 pages)
Altri autori (Persone)	WestfechtelBernhard
Disciplina	005.1
Soggetti	Software engineering Software Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1 Importance of Software Architectures -- 1 The Architecture is the Center of the Software Development Process -- 2 An Integrative Language Approach for Software Architectures -- 3 Sequences of Software Architectures from Abstract to Details -- Part 2 Important Topics on Architecture Level -- 4 Embedded Systems: Simple Rules to Improve Adaptability -- 5 Architectural Styles: Do they Need Different Notations? -- 6 Process Interaction Diagrams are more than Chains or Transport Networks -- 7 Characterization of Shallow and Deep Reuse -- 8 The Software Architecture is the Glue to Deal with Variety and Integration -- 9 Reverse and Reengineering for Old Systems is seldom Complete -- Part 3 Relations to Surrounding Activities -- 10 Process and Model Transformations on Different Levels -- 11 The Transformation from Requirements to Architectures is not Automatic -- 12 Software Architectures and Programming in the Small -- 13 Project Management and Architectures -- 14 Quality Assurance and DocumentationRelated to Architectures -- Part 4 Summaries, Conclusions, Open Problems, Index -- 15 Summary, Lesssons Learned, Messages, Open Problems.
Sommario/riassunto	This textbook concentrates on processes, activities and results related to software architectures. It describes the separation of architecture artefacts corresponding to their nature, their logical or their modeling level on one hand and at the same time emphasizes their integration based on their mutual relations. Design or development processes

demand for integration, as different artifacts must be elaborated, which are mutually dependent and need to be in a consistent form. The book is structured in four parts. The introductory Part I deals with the relevance of architectures, the central role of the design subprocess both in development or maintenance, and the importance of the decisions and artefacts in the overall result. Another topic is the spectrum of views an architecture language has to offer, and that there are different architectures to be regarded, from abstract and static to detailed, technical, and specific. Part II then discusses “important topics” on the architecture level. It deals with adaptability especially for embedded systems, with integrating styles/ pattern notations, with different reuse forms and how to find them, with the role of architectures for integrating different existing systems, and with reverse and reengineering of legacy systems. Next, Part III covers architecture modeling and its relation to surrounding activities, as well as architectures to surrounding other results. The single chapters are on transformation between requirements and architectures, architectures and programming, architectures and project management and organization, as well as architectures and their relations to quality assurance or documentation. Eventually, Part IV summarizes the main messages and presents open problems, both for every single chapter and across chapters. Every chapter focuses on a specific problem it addresses, a question it answers, the attention it demands, a message it conveys, and further open questions it raises. The chapters are mostly independent, which implies a certain redundancy, yet it allows lecturers (and their students) to either use the book as the basis of teaching software architecture or design, or to just pick those aspects that need special attention in a more advanced course.

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2. Record Nr.	UNINA9910557797503321
Autore	Shi Sheldon
Titolo	Natural Fibre Biocomposites
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020
Descrizione fisica	1 online resource (114 p.)
Soggetti	Research and information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>In recent years, there has been significant progress in biomass research as bio-based products are beneficial to the environment, energy-saving, and cost-saving if they are processed properly. The book collects the most state-of-the-art works related to the natural fiber composites in a Special Issue entitled "Natural Fiber Biocomposites". These works address all the issues related the manufacturing of natural fiber composite products, from (1) raw materials, such as wood, flax fiber, and cellulose nanofiber; to the (2) raw material treatments, such as furfuryl alcohol pretreatment, ultrasonic vibration treatment (UVT), and extraction method for the resins; to the (3) process of the composites fabrication, such as thermo-hygro-mechanical densification; and to the (4) performance of the composites, including mechanical, moisture absorption, opacity, thermal, and biodegradability. Discussions on the adhesives/resins used in the natural fiber composites fabrication, such as dried distiller's grains and solubles (DDGS), pennycress (<i>Thlaspi arvense</i> L.) press cakes (PPC), and lesquerella [<i>Lesquerella fendleri</i> (A. Gary) S. Watson] press cake (LPC), starch, and polylactic acid (PLA), are also part of the book. It is believed the technical information presented in this book will contribute to the development of the bio-based composites.</p>