1. Record Nr. UNINA9910788823903321 Autore Jeska Simone Titolo Emergent timber technologies: materials, structures, engineering, projects / / [compiled and written] by Simone Jeska and Khaled Saleh Pascha; edited by Rainer Hascher, Technische Universitat Berlin Pubbl/distr/stampa Basel:,:Birkhauser,,[2015] ©2015 **ISBN** 3-03821-616-X Descrizione fisica 1 online resource (176 p.) Classificazione ZI 7400 Disciplina 691/.1 Building, Wooden Soggetti Wooden-frame buildings Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Translation of: Neue Holzbautechnologien. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Front matter -- Contents -- Introduction / Hascher, Rainer -- Historic design typologies / Pascha, Khaled Saleh -- New technologies and methods / Jeska, Simone -- Developments in timber construction materials / Pascha, Khaled Saleh -- CNC production for timber structures / Jeska, Simone -- Experimental and temporary structures / Jeska, Simone -- Trade fair hall 11: Frankfurt am Main, Germany --Business premises, BIP Computer: Santiago de Chile, Chile --Clubhouse, Haesley Nine Bridges Golf Course: Yeoju, South Korea --Austria Center Vienna - "The Wave": Vienna, Austria -- Footbridge in Kollmann: South Tyrol, Italy -- Gessental bridge: near Ronneburg, Germany -- Elephant house, Zurich Zoo: Zurich, Switzerland -- Double sports hall: Borex-Crassier, Switzerland -- Three roller-coasters: Colossos(Soltau, Germany), Balder(Gothenburg, Sweden), Mammut (Cleebronn, Germany) -- Toskana thermal baths: Bad Orb, Germany --Index -- Bibliography -- Illustration credits -- About the authors -Acknowledgements Sommario/riassunto The "old" material of wood has been used to construct dwellings of different types since the dawn of mankind. And not without reason. Its low density combined with high rigidity, good processability, and its

resistance makes it an excellent building material. There is currently a pioneering renaissance of the timber construction, for two distinct

reasons: first, wood is increasingly being rediscovered as one of the most important renewable raw materials for sustainable construction. Moreover, a revolution in the construction of timber structures began several years ago with the ever-progressive use of three-dimensional CAD models for digitally controlled robot manufacturing The book documents these developments, in particular the engineering bonding techniques, the introduction of digital production techniques, and the innovative material developments of this material. The chapter on composite structures and experimental structures specifically address trends toward the future-oriented dimensions of timber construction. In the final section, outstanding designs are documented in detail, such as the Club House of Haesley Nine Bridges Golf Course designed by Shigeru Ban in Yeoju, South Korea, and the double gymnasium in Borex-Crassier, Switzerland, by Graeme Mann and Patricia Capua Mann.