1.	Record Nr.	UNINA9910624386503321
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	Titolo	Integrated CAD by Optimization : Architecture, Engineering, Construction, Urban Development and Management / / by B K Chakrabarty
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
	ISBN	9783030993061 9783030993054
	Edizione	[1st ed. 2022.]
	Descrizione fisica	1 online resource (696 pages)
	Disciplina	620 620.00420285
	Soggetti	Computer-aided engineering Buildings - Design and construction Transportation engineering Traffic engineering Civil engineering Urban policy Computer-Aided Engineering (CAD, CAE) and Design Building Construction and Design Transportation Technology and Traffic Engineering Civil Engineering Urban Policy
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Integrated Computer-Aided-Design by Optimization in AEC - An Overview -- Urbanization, Urban Management and Computer-Aided Planning and Design -- Elements of Numerical Techniques and Operations Research -- Elements of Cost Engineering and Data Base Management -- Elements of Computer Graphics and Computer-Aided Drafting-Drawing -- Planning and Design Analysis in Urban Development and Management and a Theory of Optimal Urban Built-Form -- Design Optimization -- Integrated Computer-Aided

Structural Design by Optimisation -- Integrated Computer-Aided Building-Housing Design by Optimisation -- Integrated Computer-Aided Layout Planning and Design by Optimisation -- Integrated Computer-Aided Dwelling-Layout System Design by Optimization.

Sommario/riassunto	This book presents range of topics concerning integrated CAD (including Optimization) for use in Architecture (including Planning), Civil Engineering and Construction (AEC), and thus, helps introduce a full-length treatment of the subject, enabling practitioners to adopt an Integrated Computer-Aided Design Approach in their professional activity. The book gives to readers an understanding of the main elements of CAD, highlighting the importance of integrating these elements and the applicability of Integrated CAD in AEC. Many examples and problems (including Optimization) are included to help professionals and students to develop and apply such tools in solving problems in AEC field. Adopts a problem solving approach in planning, design, and management stressing IT and Computer Application in AEC sector as a whole; Emphasizes resource-efficiency and social equity in problem solution in the AEC sector in general, and in urban development and management in particular; Stresses optimization and an integrated approach covering all components, including costs, affordability and environmental factors, scarcity of resources, and resolution of conflicting interests; Includes an accessible overview and source codes of C++ and Auto Lisp programs needed to carry out design analysis, optimization and drafting-drawing in an integrated manner.