1. Record Nr. UNINA9910555059503321 Autore Reis Antonio J. <1949-> Titolo Bridge design: concepts and analysis // Antonio J. Reis, Jose J. Oliveira Pedro Pubbl/distr/stampa Hoboken, New Jersey;; Chichester, West Sussex, England:,: Wiley,, [2019] 2019 **ISBN** 1-5231-2794-5 1-118-92765-6 1-118-92764-8 1-118-92759-1 Edizione [1st edition] Descrizione fisica 1 online resource (552 pages) 624.25 Disciplina Soggetti Bridges - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Bridge design: site data and basic conditions -- Actions and structural safety -- Conceptual design and execution methods -- Aesthetics and environmental integration -- Superstructure : analysis and design --Substructure: analysis and design -- Design examples: concrete and composite options. Sommario/riassunto A comprehensive guide to bridge design Bridge Design - Concepts and Analysis provides a unique approach, combining the fundamentals of concept design and structural analysis of bridges in a single volume. The book discusses design solutions from the authors' practical experience and provides insights into conceptual design with concrete, steel or composite bridge solutions as alternatives. Key features: Principal design concepts and analysis are dealt with in a unified approach. Execution methods and evolution of the static scheme during construction are dealt with for steel, concrete and composite bridges. Aesthetics and environmental integration of bridges are considered as an issue for concept design. Bridge analysis, including modelling and detail design aspects, is discussed for different bridge typologies and

structural materials. Specific design verification aspects are discussed

on the basis of present design rules in Eurocodes. The book is an invaluable guide for postgraduate students studying bridge design, bridge designers and structural engineers.