1. Record Nr. UNINA9910299813403321 Autore Swamee P.K Titolo Design of Canals / / by P.K. Swamee, B.R. Chahar New Delhi:,: Springer India:,: Imprint: Springer,, 2015 Pubbl/distr/stampa **ISBN** 81-322-2322-5 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (188 p.) Collana Springer Transactions in Civil and Environmental Engineering, , 2363-7633 Disciplina 627.13 Soggetti Engineering geology Engineering—Geology **Foundations Hydraulics** Hydrology Water-supply Geoengineering, Foundations, Hydraulics Hydrology/Water Resources Water Industry/Water Technologies Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Introduction -- Objective Functions -- Basic Canal Hydraulics --General Principles of Canal Design -- Design for Minimum Flow Area --Minimum Section Cost Canals -- Minimum Water-Loss Canals Section -- Overall Minimum Cost Canal Sections -- Design of Canal Transitions -- Optimal Design of Transmission Canal -- Salient Features of Canal Route Alignment -- Lambert's W-Function -- Schwarz-Christoffel Transform -- Solution of Cubic Equation -- Index. Sommario/riassunto The book presents firsthand material from the authors on design of hydraulic canals. The book discusses elements of design based on principles of hydraulic flow through canals. It covers optimization of design based on usage requirements and economic constraints. The book includes explicit design equations and design procedures along

with design examples for varied cases. With its comprehensive coverage of the principles of hydraulic canal design, this book will

prove useful to students, researchers, and practicing engineers. Endof-chapter pedagogical elements make it ideal for use in graduate courses on hydraulic structures offered by most civil engineering departments across the world.