Record Nr. UNINA9910299389703321 Autore Kumar Maity Swapan Titolo Sedimentation in the Rupnarayan River: Volume 1: Hydrodynamic Processes Under a Tidal System / / by Swapan Kumar Maity, Ramkrishna Maiti Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 3-319-62304-4 **ISBN** Edizione [1st ed. 2018.] 1 online resource (XVII, 100 p. 35 illus., 29 illus. in color.) Descrizione fisica Collana SpringerBriefs in Earth Sciences, , 2191-5369 Disciplina 551.303 Soggetti Sedimentology Natural disasters Hydrogeology **Natural Hazards** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto 1.Introduction -- 2.Channel Forms and Patterns -- 3.Stream Hydraulics -- 4.Tidal Character -- 5.Sediment Load -- 6.Bed Load Sediment Texture -- 7. Available and Critical Shear Stress: Initiation of Motion --8.Environment of Sediment Deposition -- 9.Understanding the Sources of Sediments from Mineral composition – An X-Ray Diffraction (XRD) based analysis -- 10.Conclusion. Sommario/riassunto This book explains the causes, mechanisms and dimension of sedimentation in the Rupnarayan River, which offers a representative example of a tidal river combining fluvial and marine processes. The book is unique in addressing all the hydrodynamic characteristics of the river, especially the tidal impact, sediment load and textural characteristics of the sediments. The data presented here was gathered through continuous field monitoring using state-ofthe-art techniques and robust laboratory analysis, and will help readers develop a systematic understanding of sedimentation processes. As such, the book offers a valuable resource for all students and

researchers conducting research on fluvial geomorphology and

sedimentology. In addition, the outcomes it presents will benefit engineers, hydrologists, planners and other authorities affected by a number of aspects related to sedimentation.