Record Nr. UNINA9910337626503321 Autore Rao M. Chakradhara Titolo Systematic Approach of Characterisation and Behaviour of Recycled Aggregate Concrete / / by M. Chakradhara Rao, Sriman Kumar Bhattacharyya, Sudhirkumar V. Barai Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 **ISBN** 981-10-6686-8 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XL, 318 p. 215 illus., 137 illus. in color.) Collana Springer Transactions in Civil and Environmental Engineering, , 2363-7633 691 Disciplina Soggetti **Building materials** Buildings—Design and construction Building Construction Engineering, Architectural **Building Materials** Structural Materials **Building Construction and Design** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Production Process of Recycled Aggregate -- Properties of Recycled Aggregates -- Properties of Recycled Aggregate Concrete -- Long Term and Durability Properties -- Microstructure of Recycled Aggregate Concrete -- Structural Behaviour of RAC -- Quality Improvement Techniques. Sommario/riassunto This book focuses on the utilisation of construction waste material as coarse aggregate in making concrete. It discusses in detail the behaviour of recycled aggregate under impact load along with other structural applications, and explains the various quality-improvement techniques for recycled aggregate and recycled aggregate concrete (RAC). The first chapter describes the importance of recycling construction and demolition waste and the status quo of global construction and demolition waste recycling. The second chapter

examines the recycled aggregate production methodology. Subsequent

chapters address the physical and mechanical characteristics and different research findings, as well as the engineering properties of recycled aggregate concrete. Further, the interrelationships among the mechanical properties of recycled aggregate concrete are discussed. The book also explores long-term properties like shrinkage and creep, durability properties, and microstructural characterisation. It will serve as a valuable resource for researchers and professionals alike.