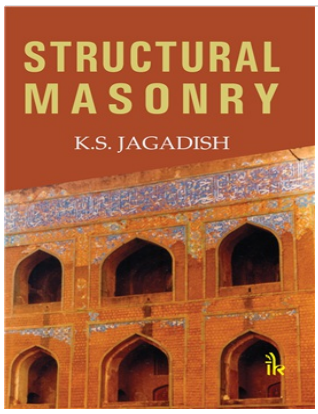
Book Information Sheet



Structural Masonry, 1/e

K.S. Jagadish

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About the Book

Structural masonry in India, especially when bricks are used as masonry units, is substantially different from brick masonry in the west. This is due to the rather low strength of bricks here. The properties of bricks vary widely from region to region and the elastic modulus of the mortar is often more than that of the brick. This book attempts to address this situation by studying the load carrying capacity of such brick masonry. The newly emerging masonry units like concrete blocks, hollow clay blocks and stabilized mud blocks are also examined for use in masonry walls. The design of walls subjected to axial or eccentric compression is also discussed with sample calculations for load bearing masonry buildings going up to 8 floors. The strength of masonry in shear and flexure is also studied. Reinforced masonry is also discussed in view of its potential in designing earthquake-resistant masonry. This book is an attempt to provide up-to-date information to engineers and builders in the area of masonry.

Salient Features

- Discusses the importance of masonry for a developing country like India.
- Gives a detailed account of various masonry materials used widely.
- Analyzes masonry structures under different conditions like compression, shear and flexure etc
- Profusely illustrated with pictures and contains a lot of solved problems
- Makes reference to BIS IS Codes, wherever applicable

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About the Author

K.S. Jagadish :- K.S. Jagadish obtained his Ph.D. in Structural Engineering in 1969 from Indian Institute of Science (IISc). He joined the faculty of Civil Engineering in 1967 in the Institute and also spent a year as Post Doctoral Fellow at Karlsruhe University in Germany. He eventually became Professor of Civil Engineering sin Indian Institute of Science in 1984. He concurrently took up the Chairmanship of the Centre of ASTRA from 1983 to 1989. After retirement in 2002 he was Emeritus Scientist for 4 years. In 2006 he took up Visiting Professorship at R. V. College of Engineering and mentored their Master's Program in Structural Engineering till Jan 2015. He is currently associated with a voluntary agency GRAMAVIDYA and is involved in the dissemination of Alternative Sustainable Technologies. His interests include Structural Dynamics, Earthquake Engineering, Shell Theory, Masonry Structures, Alternative Buildings and Rural Energy Systems.