

# Pile Foundation Design and Construction Including Well Foundation

for Engineering Students, Architects, Practising Engineers and Consultants

Pile foundation created a revolution ever since its inception in professional practices in seventies. But since that time, its design methods basically had been developed by different persons in their own way, either by common sense or by using laws of mechanics. This book is intended primarily to guide the readers on all aspects of pile foundation, though it is not easy to compile comprehensively in one volume. Since pile foundation is being used now on many projects, it is necessary to guide the engineering fraternity on its design in a simple way. Now piles, when provided in a series, serve as a retaining wall also. These are called soldier piles, secant piles or contiguous piles, and if soil nailing technique is not used for underground constructions, then contiguous piles provide a good substitute to sheet piles. Another offshoot to conventional RCC pile is stone column or granular pile. Pile foundation has proved its worth in all kinds of soils, including highly compressible soils. New development in pile foundation is the 'spliced pile' — which may be used where deep piles are required and could be made in precast pieces and joined at site *in situ*. Piles these days are being designed for uplift and lateral loads also. In this book efforts have been made to include all these details and surely it will prove to be a highly beneficial book to all readers.

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Dr Mittal has to his credit more than 1000 technical reports of soil exploration work and foundation designs, He also authored two books, namely, *Soil Testing for Engineers* and *Ground Improvement Engineering*. He has been involved in design of more than 50 hydroelectric projects in the country. He has designed foundations for suspension bridges, chimneys, etc. His interests include ground improvement techniques, soil dynamics, landslides controls, slope stability studies, underground cuts, etc. He is recipient of several national awards and several state awards, besides IGS awards for his contribution in ground improvement engineering. He also authored biography of Sir M Visvesarayya, published by The Institution of Engineers (India).



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