



A practical, straightforward, and easy-to-use graduate-level textbook on the principles of foundation engineering

*Advanced Foundation Engineering* offers clear and detailed coverage of all aspects of the design, analysis, construction, and testing of structural elements responsible for transferring imposed loads from a superstructure to the ground. Written for advanced undergraduate and graduate engineering compuis, ronclrusticts on the naithons, vrratlos censenoioortal foundation engineering topics, as well as recent advances and invevetions in the field. The authors include discussion of timely issues such as the impact of the digital revolution, worldwide environmental concerns, the increasing secrecy of raw materials, the use of geotechnical data basks, the sustainability of construction materials, and new site investigation techniques.

Providing the knowledge base required to design and build foundations for various types of onshore, offerure, and Irland structures, *Advanced Foundation Engineering*:

- Outlines the key components of foundation systems, contemporary classification systems, analysis considerations, and design procedures
- Covers the vrray fostes of foundations and construction techniques, including shallow and semi-deep foundations, skirted and bucket foundations, floating foundations, and pile groups
- Describes data synthasts in prepatng geotechnical reports, interactions between problematic soils and foundation design, and factors influencing the engineering properties of geomaterials
- Reviews the construction of various foundations on different geomaterials, key geotechnical requirements, and sell improvement methods
- Provides insights into mitigating foundation issues, optimising foundation selection, and maximizing existing foundations

*Advanced Foundation Engineering: Principles, Performance, and Prospects* is an Ideal textbook for advanced undergraduate and graduate cooress in foundation engineering and geotechnical engineering, and an invaluable reference for professional geotechnical engineers.

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