

# Structural Geology and Rock Engineering

The exploration and extraction of the earth's resources are key issues in global industrial development. In the 21st century, emphasis is increasingly being placed on geo-engineering safety, engineering accountability and sustainability. With focus on rock engineering projects, *Structural Geology and Rock Engineering* uses case studies and an integrated engineering approach to provide an understanding of projects constructed on or in rock masses. Based on Professors Cosgrove and Hudson's consulting experiences, plus university teaching at Imperial College London, as well as relevant short course presentations, it explains the processes required for engineering modelling, design and construction.

The first half of the book provides step-by-step presentations of the principles of structural geology and rock mechanics with special emphasis on the integration between the two subjects. The second half of the book turns principles into practice. A wealth of practical engineering examples are presented, including evaluations of bridge foundations, quarries, dams, opencast coal mining, underground rock engineering, historical monuments and stone buildings.

This up-to-date, well-illustrated guide is ideal for teachers, researchers and engineers interested in the study and practice of rock-based projects in engineering.

Cover Image: Clifton Suspension Bridge, Bristol, UK.

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