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Rock Reinforcement and Rock Support

Ömer Aydan

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The stability of underground and surface geotechnical structures during and after excavation is of great concern as any kind of instability may result in damage to the environment as well as time-consuming high cost repair work. The forms of instability, their mechanisms and the conditions associated with them must be understood so that correct stabilisation of the structure through rock reinforcement and/or rock support can be undertaken.

Rock Reinforcement and Rock Support elucidates the reinforcement functions of rock bolts/rock anchors and support systems consisting of shotcrete, steel ribs and concrete liners and evaluates their reinforcement and supporting effects both qualitatively and quantitatively. It draws on the research activities and practices carried out by the author for more than three decades and has culminated in a most extensive up-to-date and a complete treatise on rock reinforcement and rock support.

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About the author



Born in 1955, Professor Aydan studied Mining Engineering at the Technical University of Istanbul, Turkey (B.Sc., 1979), Rock Mechanics and Excavation Engineering at the University of Newcastle upon Tyne, UK (M.Sc., 1982), and finally received his Ph.D. in Geotechnical Engineering from Nagoya University, Japan, in 1989. Prof. Aydan worked at Nagoya University as a research associate (1987–1991), and then at the Department of Marine Civil Engineering at Tokai University, first as Assistant Professor

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