



Dr N. Kovacevic  
BSc MSc PhD DIC CEng MICE  
Director

**Areas of expertise**

Numerical analyses of slopes, embankments, dams, deep excavations, pile foundations, tunnels and earth retaining structures.

**Recent experience**

Since joining GCG in 1994, Dr Kovacevic has been engaged in sophisticated finite element analyses of various geotechnical problems. These include stability of slopes in stiff plastic clays, deformation of rock-fill dams, deep excavations in both soft and stiff clays, response of offshore pile foundations to combined axial and lateral loading, design of earth retaining structures of various forms, modelling of NATM tunnelling in stiff clays, and also the effect of compensation grouting on tunnel linings of different types.

Dr Kovacevic has a keen interest in quantifying the role of progressive failure in the stability of old railway cuttings and road embankments constructed in London Clay. He was awarded the Telford Gold Medal by the Institution of Civil Engineers in 1998 for work in this field. As an extension to this work, he analysed the effects of various widening schemes on overall stability of motorway cuttings and reproduced deep seated movements of LUL ash embankments due to seasonal pore pressures fluctuations. He has also investigated the likely effects of tunnel construction on the stability of cliffs formed in London Clay.

He has also become interested in the complex soil-structure interaction numerical modelling of eccentric jack-up penetration into in-filled footprint craters quite common in offshore engineering. More recently, he has carried out numerical analyses to investigate the stability of the Storega submarine landslide at Ormen Lange offshore Norway and the Mardi Gras pipeline segments crossing the Sigsbee escarpment in the Gulf of Mexico. He has also carried out analyses of large submarine landslides in micaceous sands in Bangladesh. Other areas of work include the analysis of embankment dams and work with soft clays.

He became a Director of the company in 2006. Dr Kovacevic is currently responsible for GCG's numerical work carried out in association with Imperial College. He has widely published on various forms of soil-structure interaction problems, stability of slopes and deformation analyses of dams

**Areas worked**

UK, Ireland, Norway, US, Algeria, Iraq, Yugoslavia, Russia

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**GEOTECHNICAL CONSULTING GROUP**

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**Previous experience**

After graduation from the University of Belgrade in 1984, Dr Kovacevic worked for Energoprojekt Holding Corporation, Belgrade, Yugoslavia. As a chartered geotechnical engineer, his work involved the design of earth-rock fill structures, foundation treatments and landslide problems. Office work was combined with field work in both Yugoslavia and abroad.

His projects included the following: (i) reconnaissance studies, site investigation works and designs of various earth-rock fill dams in Yugoslavia; (ii) Nemencha and Sud Atlas feasibility study in Algeria, including basic designs of various dams of different type; (iii) basic and main design, and construction of Badush Dam in Iraq; (iv) landslide stabilisation works by drainage and various retaining structures; (v) design of buoyant raft and piled foundation in soft alluvial clays; (vi) design of shallow footings in highly collapsible loess strata for the agriculture complex in Kuban, Russia, and (vii) assessment of foundation conditions and liquefaction analyses for nuclear power plants.

In 1989 Dr Kovacevic came to London to attend the MSc course in Soil Mechanics at Imperial College, University of London. His MSc thesis was related to the design and analysis of concrete face rock-fill dams. Having completed the MSc course in 1990, Dr Kovacevic stayed at Imperial College and embarked on research into the numerical analysis of rock-fill dams, cut slopes and road embankments. He obtained his PhD from the University of London in 1994. In his final year at Imperial College, he took up the post of Research Assistant, where he studied the safety of old embankment dams by analysing movement during reservoir operation.

**Awards**

Telford Gold Medal, Institution of Civil Engineers, 1998

**Education/ Research**

PhD, Imperial College, London, 1994

MSc (Distinction) DIC, Imperial College, London, 1990

BSc, University of Belgrade, 1984

**Professional Qualifications**

Member of the Institution of Civil Engineers, 2005

**Professional activities**

British Dam Society: Member of the main committee 2007 -

Lecturer, Imperial College professional development courses 'Numerical Analysis in Geotechnical Engineering' and 'Earthworks & Embankments'.

Invited Lecturer, Imperial College Soil Mechanics MSc Course.

**Year of Birth**

1960