



Areas of expertise

Dr Angeliki Grammatikopoulou is a chartered civil engineer with more than 20 years' experience in academia and industry. She specialises in soil characterisation, advanced constitutive modelling and numerical analysis of complex geotechnical problems, including foundations (onshore and offshore), retaining walls, deep excavations, tunnels and dams. Dr Grammatikopoulou has worked on prestigious commercial and infrastructure projects in the UK and abroad. Her offshore work includes the analysis of foundations for numerous offshore wind farms. She has extensive experience of tunnel and building damage assessments and in recent years she has been working extensively on mine waste disposal.

Education and Career

Since 2004: GCG, London.

2001-2003: Research Assistant, Imperial College London.

1999-2004: PhD, Imperial College London.

1998-99: MSc (Distinction), Soil Mechanics and Engineering Seismology, Imperial College London.

1993-98: Diploma of Civil Engineering, Aristotle University of Thessaloniki, Greece (graduated as top student).

Professional Qualifications and Memberships

Since 2023: Fellow of the Institution of Civil Engineers, FICE (Member CEng, MICE 2014-2023)

Since 2000: Member of the Greek Chamber of Civil Engineers (TEE)

Since 2000: Member of the British Geotechnical Association

Member of the Society for Underwater Technology

Scholarships / Awards

1999: Imperial College Soil Mechanics Prize

Experience with GCG

Dr Grammatikopoulou joined GCG in 2004 and became a Senior Partner in 2021. Following on from her PhD work at Imperial College, on the constitutive modelling of stiff overconsolidated clays, she has developed an expertise in soil characterisation, advanced constitutive modelling and numerical analysis.

Since joining GCG she has undertaken finite element analyses of complex geotechnical problems, including foundations (onshore and offshore), retaining walls, deep excavations, tunnels, dams and embankments. In many of these projects she has led the derivation and calibration of parameters for sophisticated constitutive models covering a variety of soil conditions. Examples of offshore foundation projects include her work on monopile foundations for a number of offshore wind farms in the Irish and North Sea, as well as the installation of spudcans. Major onshore projects include London's Crossrail bored tunnels and an embankment dam at Abingdon (South-East England). She has also aided GCG's work in expert witness legal cases.

Dr Grammatikopoulou has managed site investigations, including specification, supervision and interpretative reporting and provided advice on geotechnical issues and design for projects in the UK and abroad. She has worked on slope stabilisation for embankments on soft and stiff clays and over the last years has been working extensively on mine waste disposal.

Dr Grammatikopoulou has project managed and technically led many projects, including deep basements for prestigious redevelopments in London and projects related to the effects of excavation and construction on existing London Underground Limited, Network Rail and Thames Water tunnels. As part of the Bank Station Capacity Upgrade project she has technically led the Phase 3 building damage assessments for all the heritage buildings. Further assessment work included the effects of the Tottenham Court Road Station Upgrade and the combined effect of the Victoria Station Upgrade and the adjacent Land Securities Nova Victoria project, on existing LUL tunnels.

1996-98: Award of the Greek Chamber of Civil Engineers (TEE) for top student

1995-98: Greek State Scholarship for Top Student

Service on technical / professional bodies

2015-18: British Geotechnical Association (BGA) Executive Committee.

Countries Worked

UK, Spain, Greece, Serbia, Australia, Brazil

Languages (other than English)

Greek

Dr Grammatikopoulou has published numerous journal and conference papers on soil constitutive models and their application in geotechnical problems, including offshore and onshore foundations, tunnels, retaining walls and embankments. She has been acting as a reviewer for journal publications and has been invited to deliver lectures on her work at evening meetings and conferences.

Previous experience

Prior to joining GCG, Dr Grammatikopoulou was a member of the Soil Mechanics research group at Imperial College. Initially she was a research student and thereafter was employed as a Research Assistant in the Department of Civil and Environmental Engineering. Her research focused on the study of elasto-plastic constitutive models for clays. As part of her work, two kinematic hardening models were improved, two new models were developed, and all four were implemented into the finite element code ICSEP. Dr Grammatikopoulou applied the models in the analyses of two problems, an embankment founded on a soft clay deposit and the construction of tunnels within the stiff London Clay. The latter part of the project included finite element analyses of the twin tunnels constructed at St. James's Park, London, as part of the Jubilee Line Extension. Dr Grammatikopoulou was awarded her PhD degree in August 2004.

Between 1998 and 1999 Dr Grammatikopoulou completed her MSc degree on "Soil Mechanics and Engineering Seismology" at Imperial College from which she graduated with distinction and as the top student. Her dissertation investigated the effect of soil anisotropy on the behaviour of sheet pile retaining walls and involved finite element analyses using ICSEP. For this work she was awarded the Soil Mechanics Prize for the best MSc dissertation.

From 1993 to 1998 Dr Grammatikopoulou studied Civil Engineering at the Aristotle University of Thessaloniki, Greece, where she graduated as the top student. During the summer of 1997 she worked through IAESTE (International Association for the Exchange of Students for Technical Experience) for "Ingenieria del Suelo" in Madrid, Spain.