Geotechnical Consulting Group

Dr Apollonia Gasparre

Dott. Ing. PhD DIC CEng FICE

Senior Partner

Proven experts in a geotechnical world

Professional summary

Dr Apollonia Gasparre is a geotechnical engineer with 20 years of experience in research and practice in the UK and abroad. Fellow of the Institution of Civil Engineers, Dr Gasparre's areas of expertise include ground characterisation, onshore and offshore ground investigation, laboratory testing, foundations, piling, basement and retaining walls, ground movements, earthworks and slope stability, hydrogeology and tree root damage. She has been retained as an Expert Witness in international disputes and has given evidence in Court.

Education and Career

Since 2006: GCG, London

2006-12: Visiting Researcher, Imperial College London

2002-05: Research Assistant and PhD, Imperial College London

1994-2001: Laurea in Civil Engineering (Final mark110/110 cum laude), Technical University of Bari, Italy

1989-94: Diploma Liceo Classico D. Morea (Final mark 60/60), Conversano, Bari, Italy

Professional Qualifications and Memberships

Since 2020: Fellow of the Institution of Civil Engineers, FICE (Member 2010-2020).

Since 2002: Chartered Member of the Italian Institute of Civil Engineers

Since 2000: Member of the British Geotechnical Association

Scholarships / Awards

2014: BGA Medal, British Geotechnical Association

2007: Geotechnical Research Medal, Institution of Civil Engineers

2001: Leonardo Project, sponsored by the European Union

Experience with GCG

Dr Gasparre joined GCG in January 2006 and became Senior Partner in 2021. Throughout her career, she has provided expert advice on a broad spectrum of geotechnical engineering problems, including ground characterisation, earthworks, hydrogeological assessment and the design of foundations and retaining walls.

She has specialised expertise in advanced laboratory testing, developed during her PhD and subsequently applied across numerous international onshore and offshore projects. She has designed and supervised large scale site investigations, advised on investigation strategies, supported laboratories throughout testing campaigns and interpreted test results to characterise the ground and derive soil parameters for design and numerical modelling on high-profile projects worldwide.

Dr Gasparre has worked extensively on earthworks and slope stability problems, including cuttings, embankments and large landscape bunds. She has advised London Underground on slope failure issues and has designed remediation works for railway embankments. She has studied and analysed stability and swelling issues of cuttings for railways and has worked on flood defence embankments of various type and configurations. She has also carried out forensic work on the causes of failure of a leached heap facility.

She has conducted numerous hydrogeological studies and forensic assessment of waterflooding issues and has been involved in a research project on erosion and softening of stiff clays due to water flow.

Her extensive experience in urban redevelopments includes deep basements, pile design and the re-use of existing foundations. She has assessed ground movements related to construction activities and their potential impact on buildings and tunnels, and she has designed and back-analysed piles and retaining walls. She has worked on two award-winning projects, involving the redevelopment of a site above a London Underground station,

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1999-2000: Erasmus-Socrates, sponsored by the European Union

1989-94: Annual awards for best student in literature and classical studies

Service on technical / professional bodies

Since March 2023: Member of the editorial panel of the ASCE Journal of Geotechnical and Geoenvironmental Engineering

Since 2021: Member of the Steering Group of the CIRIA Piling Guide

Since 2020: Member of the CIRIA (Construction Industry Research and Information association) Geotechnical Engineering Advisory Panel

Since 2010: Member of the ISSMGE Technical Committee TC101 (Laboratory Testing)

2016-20: Member of the editorial panel of the ICE journal Geotechnical Engineering

Countries worked

UK, Italy, Ukraine, Norway, South Korea, Brazil, Turkey, Kosovo, Madagascar, Portugal.

Languages (other than English)

Italian

and the construction of Italy's tallest building, which includes a five-storey deep basement adjacent to railway infrastructure.

Since 2020, Dr Gasparre has been collaborating with insurers, solicitors and adjudicators offering expert forensic engineering and technical advice on cases related to ground characterisation, earthworks and levee structures, ground movements and subsidence, foundation piles and micropiles, and basement and retaining wall design.

She acts as editor and reviewer of technical papers for international journals and is co-authoring the new edition of an industry guide book on the design and construction of foundation piles.

Previous experience

Dr Gasparre has been Visiting Researcher at Imperial College between 2006 and 2012.

Between March 2002 and December 2005 Dr Gasparre worked as Research Assistant in the Department of Soil Mechanics at Imperial College, where, after completing her PhD, she became responsible for the management of the soil mechanics laboratory. Throughout her time at Imperial College she carried out research studies and laboratory tutorials. She supervised several projects and dissertations of undergraduate and MSc students. Her laboratory experience includes testing of stiff and soft clays as well as sands and transitional soils.

Based on her experience as a Research Assistant, Dr Gasparre has published a number of technical papers on advanced laboratory testing techniques at very small strains and on the behaviour of London Clay at large and small strains in correlation to its lithology. Her work is well acknowledged and widely used in research and industry.

In 2001 Dr Gasparre carried out an internship at GCG. During this time she was involved in the interpretation of the results of a parametric study on the interaction between parallel tunnels performed using numerical analyses. This was part of a major project for the London Underground Engineering work (Infraco JNP).

Between November 1994 and April 2001 Dr Gasparre carried out her undergraduate studies in Civil Engineering at the Technical University of Bari, Italy, where she graduated with honours. For her dissertation thesis on "Creep in crushable sands" she spent nine months in the Geotechnical Engineering Research Centre of City University, London under the auspices of the Erasmus project sponsored by the European Union.