Geotechnical Consulting Group

Dr Felix Schroeder

MEng ACGI PhD DIC CEng MICE

Senior Partner

Proven experts in a geotechnical world

Professional summary

Dr Felix Schroeder is a geotechnical engineer with more than 20 years of experience. Building on his research work he has developed an in-depth expertise in numerical modelling and has applied this form of analysis to a wide range of projects in the UK and around the world. His extensive experience covers near-shore and offshore projects, including ports and windfarms, as well as onshore infrastructure and building projects.

Education and Career

Since 2003: GCG, London

1998-2003: PhD, Imperial College London

1994-98: MEng (1st Class), Imperial College London

Memberships and Professional Qualifications

Since 2009: Member of Institution of Civil Engineers (CEng MICE)

Member of the British Geotechnical Association (BGA)

Member of the Society for Underwater Technology

Member of the Offshore Engineering Society

Affiliate member of the American Society of Civil Engineering

Scholarships / Awards

2019 & 2021: ICE's David Hislop Award - Best paper on offshore matters

2008: ASCE's International Journal of Geomechanics Excellent Paper Award

2002: BGA Cooling Prize

1998: Imperial College Skempton Prize for excellence in Soil Mechanics

Experience with GCG

Dr Schroeder joined the Geotechnical Consulting Group in 2003 and has been a Senior Partner since April 2017. Since joining GCG, he has carried out advanced numerical analyses of many geotechnical problems, including the assessment of foundations for offshore wind turbine generators and offshore oil platforms, tunnels and tunnel openings, cut slopes, deep excavations in stiff and soft clays and the effects of the construction of various structures on sub-surface infrastructure.

He has worked on many near-shore and offshore projects. His work on offshore windfarms (OWFs) started around 15 years ago, when he got involved with a geotechnical design review for pile foundations at the Borkum West II OWF. Since then, he led GCG's work on the assessment of monopiles for OWFs in the Irish Sea, the German and UK sectors of the North Sea, and in the Taiwan Strait. This work involved the calibration of sophisticated constitutive models and the performance of 3D finite element analyses for comparison and verification of p-y based design approaches. Dr Schroeder also worked on the development and application of different pile design methodologies for a number of OWFs and he was the lead geotechnical engineer for an OWF using suction bucket supported jacket structures. In addition, he has been leading GCG's work related to offshore windfarm site characterisations offshore UK, Denmark, Japan and Taiwan. His work covered a variety of geomaterials, including the chalk at the Wikinger OWF in the Baltic Sea.

Dr Schroeder has also been leading GCG's contributions to major JIP programmes; e.g. the PISA project aimed at improving the design approach for monopile foundations, a UK Innovate supported programme with Scottish Power Renewables (SPR) and Imperial College looking at new design approaches for driven piles in difficult ground, particularly Chalk as well as the PAGE project investigating pile ageing on the basis of dynamic pile load test data together with Cathie Associates and Imperial College. He also sat on the Steering Committee of the ALPACA and ALPACA+ JIPs extending the work of the earlier Innovate UK supported JIP and the associated ALPHA project on numerical analysis of laterally loaded piles driven in chalk. Prior to the

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Service on technical / professional bodies

Since 2019: SUT Offshore Site Investigation and Geotechnics Committee

2012-15: Member of the BGA Executive Committee

Countries worked

UK, Germany, Denmark, Norway, Italy, Hong Kong, Singapore, Taiwan, Japan, USA, Brazil, Azerbaijan, Malaysia, Iran, Russia

Innovate UK JIP, Felix assisted SPR with the design and procurement of full-scale static and dynamic field testing of piles driven offshore, aiding in the processes of test specification, tender evaluation, installation and testing procedures. He has undertaken a similar role for a major offshore pile testing campaign in the Taiwan Straits.

Over the last few years, Felix has been responsible for GCG's design review activities of a number of dry stacking projects for the disposal of mine waste in Brazil. These projects required a detailed understanding and characterisation of the ground based on available field and laboratory testing.

Dr Schroeder has been the technical lead and project manager on a large number of GCG projects, including the Nova Victoria development in central London where GCG fees exceeded £750k and design elements for BSCU where the fees were around £500k. Dr Schroeder has published a number of journal and conference papers, presented his work at international conferences and the Institution of Civil Engineers in the UK and has been acting as a reviewer for international journals and conferences.

Previous experience

From October 1998 until August 2003 Dr Schroeder worked at first as a Research Student (10/98 - 07/00) and thereafter as a Research Assistant at Imperial College, London, undertaking research into the influence of bored piles on existing tunnels. The main focus of the research was the numerical analysis of this complex soil-structure interaction problem. However, the numerical results were complemented by field measurements taken in and around a tunnel on the LUL network. Dr Schroeder was heavily involved in extending the three dimensional capabilities of ICFEP and, as a part of this, developed shell elements for use in three dimensional soil-structure interaction problems. Dr Schroeder presented his research findings at numerous international conferences, in a number of journal papers and on a lecture tour of the Far East and Australia. As a result of his research Dr Schroeder was awarded a PhD in March 2003.

Prior to his research work, Dr Schroeder completed his undergraduate degree in Civil Engineering at Imperial College with First Class Honours in 1998.