INTERNATIONAL CONFERENCE ON
ADVANCES AND INNOVATIONS
IN SOFT SOIL ENGINEERING
24 – 26 August, Delft, NL

Preface

The volume collects the papers submitted to the *International Conference on Advances and Innovation in Soft Soil Engineering* held in Delft, the Netherlands, in August 2026. An additional fifty contributions were submitted in the form of extended abstracts and are available in the ISSMGE Online Library. The event was promoted by Technical Committee TC214 on Soft Soils of the International Society of Soil Mechanics and Geotechnical Engineering, and follows the International Conference held in Vancouver in 2006. Twenty years after that previous international conference, an urgent need was felt to bring back together researchers and practitioners to exchange knowledge, discuss advancements and innovation and address open challenges in the field of soft soil engineering. The volume collects state-of-the-art contributions on the topic from all five continents, providing a valuable reference across the subject.

A collection of ninety papers is included in this volume, covering the entire spectrum of key topics and methodologies in soft soil engineering, from material behaviour, investigated in the laboratory and in the field, through modelling approaches, spanning more traditional ones to machine learning techniques, towards soil improvement and implementation of knowledge in the practice. Issues and suggestions on how young generations can be introduced to soft soils complete the volume.

The need for specific *soft soil engineering* stems from the difficulties that these materials pose in terms of representative sampling, reliable testing and comprehensive, though practical, modelling approaches. It clearly emerges from the papers submitted to the conference that these difficulties are mostly reflected in infrastructure engineering, where trying to avoid the complexity of extremely compressible soils is often impracticable. The contributions also highlight how, due to their fabric and organic components, these soils are especially sensitive to multiphysics processes, whose impact is intensified by increasing climate pressure. To address both well established and more recent issues, significant attention is devoted to ground improvement techniques, with an eye on low-carbon solutions.

The published papers were selected after rigorous peer review process. We are deeply indebted to the reviewers, for their invaluable role in ensuring the quality of the volume. We gratefully acknowledge our Editorial Board colleagues and the Authors for the fundamental contribution to the success of the scientific initiative. We recognise the support to the conference of the ISSMGE and KIVI, the Royal Netherlands Society of Engineers.

We are proud to have hosted this scientific event in a country having a long-standing tradition in soft soil engineering and we look forward to continuing the conference series together with the whole international community.

Cristina Jommi
Stefano Muraro

Delft, 16 June 2026

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The ISSMGE Technical Committee TC214 on "Foundation Engineering for Difficult Soft Soil Conditions" plays a central role in advancing knowledge and practice in soft soil engineering. TC214 brings together practitioners and academics from around the world to foster collaboration and exchange of experience, knowledge, and new ideas. Its activities span the full spectrum of soft soil challenges, from the characterisation of difficult soils such as sensitive clays, peats, and organic deposits to the prediction of soil behaviour and the development of ground improvement solutions. Through workshops, symposia, and international conferences, TC214 continues to bridge research and engineering practice in one of the most demanding fields in geotechnical engineering.

KIVI Koninklijk Instituut Van Ingenieurs

The Royal Netherlands Society of Engineers (KIVI) is the leading professional association for engineers in the Netherlands, representing a community of over 13,000 members since its founding in 1847. Through its diverse network of more than 50 specialised sections, KIVI supports engineers at every stage of their careers, offering cutting-edge professional development tools, internationally recognised qualifications, and over 400 events annually - from lectures to technical workshops.