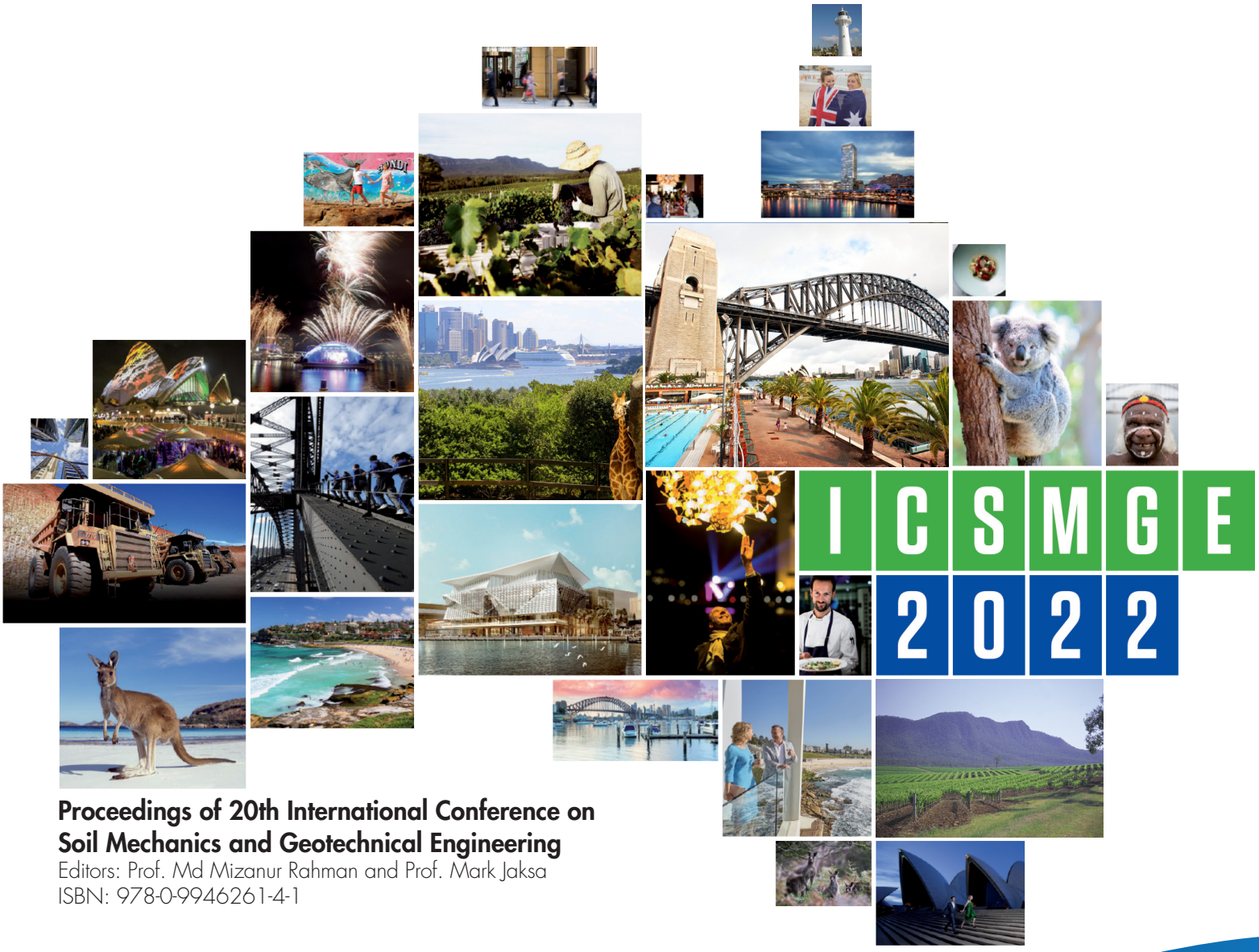
SYDNEY
ICSMGE 2022

A GEOTECHNICAL DISCOVERY **DOWN UNDER**

20th International Conference on Soil Mechanics and Geotechnical Engineering 2022 | 1-5 May 2022 | Sydney, Australia



Proceedings of 20th International Conference on Soil Mechanics and Geotechnical Engineering

Editors: Prof. Md Mizanur Rahman and Prof. Mark Jaksa

ISBN: 978-0-9946261-4-1

Hosted by the Australian Geomechanics Society and the International Society for Soil Mechanics and Geotechnical Engineering

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PROCEEDINGS OF TWENTIETH INTERNATIONAL CONFERENCE ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (ICSMGE 2022), A GEOTECHNICAL DISCOVERY DOWN UNDER, SYDNEY, NEW SOUTH WALES, AUSTRALIA, 1-5 MAY 2022

Proceedings of 20th International Conference on Soil Mechanics and Geotechnical Engineering

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Published by: Australian Geomechanics Society
PO Box 955, St Ives, NSW 2075, Australia
e-mail: secretary@australiangeomechanics.org
www.australiangeomechanics.org

ISBN 978-0-9946261-4-1

Preface

It was with great delight that, after having bid to host the International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE) on six separate occasions, the first being in 1965, that the ISSMGE Council in Seoul in 2017 voted for the Australian Geomechanics Society (AGS) to host the 20th ICSMGE in Sydney in September 2021. Unfortunately, due to the coronavirus (COVID-19) pandemic, that caused enormous global suffering and disruption to economic activities and travel, the Conference Organising Committee (COC), in consultation with the ISSMGE President and Board, made the decision to postpone the 20th ICSMGE to May 2022. In addition, and as a consequence, the Conference pivoted from the traditional, in-person format to a hybrid mode which, for the first time in the ISSMGE's history, involved both in-person and virtual attendees. While international travel was significantly hampered by COVID-19, pivoting to a hybrid conference opened new opportunities for global engagement.

The format of the hybrid conference follows the structure adopted since the 18th ICSMGE in Paris in 2013 and the 19th ICSMGE in Seoul in 2017, where the concurrent sessions are associated with the ISSMGE's Technical Committees (TCs). In 2022, the ISSMGE incorporates 37 TCs and 90 Member Societies (MSs). As per the ISSMGE Statutes, the ICSMGE papers are managed by the MSs, who are each allocated a set number of papers, depending on a formula. The papers were reviewed by several generous volunteers from each of the MSs, and their names are listed later in this volume. The COC and ISSMGE Board are grateful to the MSs, their volunteers, and the TCs for their help in making the 20th ICSMGE a success.

Early on in the planning of the 20th ICSMGE, the COC made the decision to increase the page limit for general papers to 6 pages, which for many decades had been set at 4 pages. This was done to enable authors to provide greater detail in their papers. These proceedings are arranged in three volumes. The first contains all 18 of the keynote and invited papers. This, the second volume, contains 887 general papers from 70 countries. They have each been allocated to their respective TCs, and are arranged in numerical order of the TCs.

The third and final volume incorporates Honour Lectures, and ISSMGE post-conference papers, and will be available a few months after the conference concludes. Consistent with ISSMGE practice, all papers within these proceedings will also be available a few months after the conference concludes, from the ISSMGE's website.

These proceedings would not have been possible but for the extensive work of Robin Lehane, who checked each paper and amended a large number to ensure that each conformed with the conference paper template. Robin's efforts are gratefully acknowledged. The editors would also like to thank Hugo Acosta Martinez for his very helpful advice, and Major Graphics Printers, who assembled the proceedings. Finally, we thank all authors for their patience and efforts in preparing the papers that are contained within this volume.

We are sure that you'll find great value from the wealth of information contained within these proceedings, and we commend them to you.

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