

# ISERME 2025

International Symposium on  
Earth Resources Management and Environment

## Symposium Proceedings

19 - 20 September 2025 | Colombo, Sri Lanka



Jointly Organized By



DEPARTMENT OF EARTH  
RESOURCES ENGINEERING  
UNIVERSITY OF MORATUWA  
SRI LANKA



DIVISION OF SUSTAINABLE  
RESOURCES ENGINEERING  
HOKKAIDO UNIVERSITY  
JAPAN



DEPARTMENT OF CIVIL AND  
ENVIRONMENTAL ENGINEERING  
TOHOKU UNIVERSITY  
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### **Proceedings**

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Department of Earth Resources Engineering  
Faculty of Engineering  
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Sri Lanka

Division of Sustainable Resources Engineering  
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Hokkaido University  
Japan

Department of Civil and Environmental Engineering  
Faculty of Engineering  
Tohoku University  
Japan

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## **Message from the General Chair**

**Dr. LPS Rohitha**

**General Chair – ISERME 2025**

**Head, Department of Earth Resources Engineering**

**University of Moratuwa, Sri Lanka**

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It is my great pleasure to welcome you to the 9<sup>th</sup> International Symposium on Earth Resources Management and Environment (ISERME 2025), jointly organized by the Department of Earth Resources Engineering, University of Moratuwa, Sri Lanka, the Faculty of Engineering, Hokkaido University, and the Graduate School of Environmental Studies, Tohoku University, Japan.

Since its inception in 2017, ISERME has grown into a collaborative platform that brings together researchers, academics, and students from across the world to exchange knowledge and share innovative approaches in the field of earth resources management. The inclusion of Tohoku University as a co-organizer from this year marks another significant step forward in expanding the symposium's reach and strengthening academic collaboration among our institutions.

The symposium provides a valuable opportunity for participants to engage in multidisciplinary discussions across areas such as geology, mining, mineral processing, hydrometallurgy, rock mechanics, environmental and water management, energy resources, and the application of emerging technologies such as artificial intelligence in resource engineering. This diverse scope ensures that ISERME continues to serve as an inclusive forum where both established researchers and students can share ideas, foster collaboration, and identify solutions to the pressing challenges in sustainable resource management.

I wish to extend my sincere gratitude to the organizing committees of the three universities, the reviewers, sponsors, and all contributors who have made ISERME 2025 possible. A special word of appreciation goes to the authors whose research work forms the foundation of this symposium.

As General Chair, I warmly welcome all participants to ISERME 2025 and wish you a productive and intellectually stimulating experience, enriched by meaningful discussions and new collaborations.

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