

CUS Webinar

Induced Calcium Carbonate Precipitation For Sandstorm And Dust Control

Date: 10 January 2022 (Monday)

Time: 3:00 pm to 4:00 pm

Platform: Zoom (The link will be sent to the registrants on 7 Jan 2022.)

Organised By: Centre for Urban Solutions (CUS), School of Civil and Environmental Engineering (CEE), Nanyang Technological University, Singapore

Registration: Please click [here](#) to register. Registration is free.

About the Webinar

Recently, microbially induced calcite precipitation (MICP) or enzymatically induced carbonate precipitation (EICP) has received extensive attention in the fields of geological engineering and materials engineering. With regard to sandstorm and dust control, the surface crust layer can be formed via MICP or EICP treatment to avoid sand and dust being blown by wind. The treatment allows for a great improvement of wind-erosion resistance for aeolian sands and dust soils. The feasibility of EICP technology to control sandstorm and dust effects was examined by Dr Xiaohao Sun using several large-scale desert sand solidification experiments. Additionally, a further study was carried out to improve the wind-erosion resistance and rainfall-erosion durability for treated sands and dust soils. Their research results provide a solid foundation for the application of EICP treatment as an alternative method to control sandstorm and dust pollution events.

About the Speaker



Dr Xiaohao Sun is currently a Research Assistant Professor in Southeast University and a Research Fellow in The Hong Kong Polytechnic University. He is also a Member of Jiangsu Province Comprehensive Transportation Society. He received his PhD from the Institute of Geotechnical Engineering at Southeast University in 2019, studying the applications of bio-mineralization in concrete crack repair and sandstorm and dust control. He has published over 25 high-impact journal papers, including *Acta Geotechnica*, *Cement and Concrete Composites*, *Journal of Geotechnical and Geoenvironmental Engineering*, *Science of the Total Environment*, *Construction and Building Materials*, *International Journal of Geomechanics*, etc.