Call for Abstracts

The ***First International Conference on Monitoring While Drilling (MWD'1)*** will be held on October 7 and 8, 2025, in Giesbeek, The Netherlands. The conference venue offers both indoor and outdoor facilities. The outdoor facilities will be used to display drill rigs with MWD equipment.

Monitoring While Drilling (MWD) utilizes data acquisition systems that play an increasingly crucial role in the geotechnical drilling industry. These systems log various physical drilling parameters to optimize the performance of a drilling machine and improve the efficiency of drilling operations by providing the drilling operator with relevant rig performance and subsurface profile information. The information gathered from MWD in terms of advance rate, crowd force, torque, rotation rate, drilling fluid flow, and pressure can be used individually or compounded to help describe subsurface stratigraphic layers and features as well as empirically predict soil and rock properties. While MWD systems are designed to measure parameters related to the drilling process, analysis of these measurements can be used to identify geological materials, help estimate physical, mechanical, and hydraulic soil and rock properties and support the design and construction of foundation elements. These parameters are monitored automatically, continuously, and in real-time, providing valuable information about the subsurface and thus allowing the driller to optimize drilling operations on all geological materials while collecting data which ultimately can lead to improved site characterization and confirm site conditions during construction of various foundations.

The conference MWD2025 has three priority themes:

● **Theme 1 – MWD to optimize the drilling process**
- Improvements and innovations in sensor technology
- Proper selection and installation of monitoring equipment
- Optimal drilling techniques for various geological conditions
- Effects of drilling techniques on monitored parameters
- Support and training for seasoned and new drillers
- Machine learning
- Standardization

● **Theme 2 –MWD for foundation elements**
- MWD assisted deep foundation construction (e.g. drilled shafts, mini-piles, auger cast piles,)
- Monitoring systems and sensors
- QA/QC using MWD
- MWD-based foundation design

● **Theme 3 – Analysis of MWD**
- Data processing and filtering
- Data management (e.g. DIGGS)
- Real-time assessment of drilling parameters for stratigraphic profiling
- Correlations of MWD data to geotechnical properties
- Development or improvement of empirical methods for assessing soil and rock properties
- Innovative use of MWD data

Abstracts (not to exceed 300 words) are invited to be submitted by December 15, 2024 at jean.benoit@unh.edu . The abstracts should clearly indicate for which theme they are submitted. It should be noted that the papers and presentations for approved abstracts will be made available online immediately after the conference and widely distributed to the geotechnical community at-large.

Jean Benoît & Gerald Verbeek
Conference Co-chairs