

## **From Sensor to Database: Uncovering the Secrets of Telemetry and MWD for Information Management Systems**

When considering the world of 'Data Producers' for an Information Management System (IMS), two of the big, important questions are: 1) How do we get data from the equipment in the field into our system? and 2) What is Monitor While Drilling (MWD), and is it worth it?

To help better understand these questions - and arrive at some better answers - we will start with some perspective on what an IMS does and how they are used on geotechnical construction projects of all scopes and sizes. Once a few high-level concepts are covered we will examine some important telemetry components like networking, sensors, and data transformations, and then put the ideas to work by exploring some different data production scenarios.

We will give special focus to MWD, which is currently a contentious source of data. While MWD data has the potential to unlock geological secrets, there are some pitfalls and real-world issues related to cost and time that need to be considered.