



STRATA CONTROL TECHNOLOGY

Geotechnical consulting, research, field services and instrumentation for mining and civil industries.



RockSHIELD is a new geotechnical monitoring tool that detects ground movement within the rockmass about underground excavation. RockSHIELD takes advantage of new Wi-Fi technologies, and combines hardware and software designed by SCT, to seamlessly connect a range of displacement and shear sensors to the dedicated RockSHIELD software.

RockSHIELD is used as a distributed array underground to actively **MONITOR** movement within the rockmass automatically and remotely. This enables production and technical personnel to **ACT** on the movements detected to implement additional control measures to **PROTECT** people, equipment and infrastructure.

RockSHIELD can be deployed as a stand alone application locally underground or deployed on the Cloud via mine Wi-Fi networks. It consists of four main components:

1. SCT designed software application (Cloud/Android).
2. Logging Head Unit – performs data processing and logging; and manages communications.
3. Battery Module – supplies power to the Head Unit via a separate rechargeable long life LiFePo battery that can be replaced in situ.
4. Sensors – remote monitoring of displacement (SmartTELL-TALE) and shear (SmartSHEAR).

RockSHIELD deployment options include:

1. Displacement monitoring – 2 and 4 anchor SmartTELL-TALE extensometers.
2. Shear monitoring – up to 20 MEMS sensors at 0.5m borehole spacing per instrument.
3. Distributed array of SmartTELL-TALE and SmartSHEAR sensors to monitor more complex ground conditions involving displacement and shear.

FEATURES

Cost effective IoT integration of ground monitoring data

Simple and intuitive software user interface

Wi-Fi connectivity

Easy installation

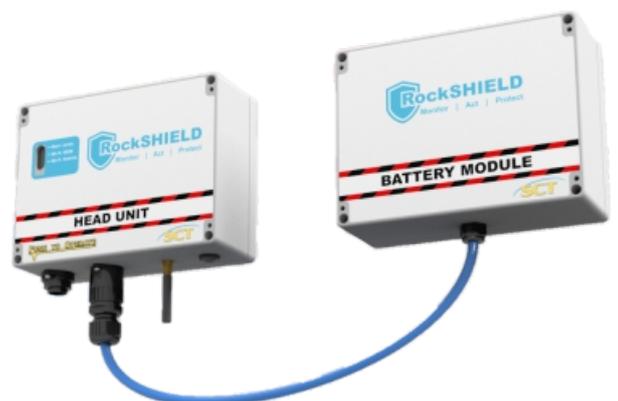
Scalable

Reusable

Stand alone data logging capability

Removable and rechargeable battery module

Compliments LiDAR and other convergence data



Contact us to discuss how we can assist your next project.

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Designed and built by SCT, the dedicated RockSHIELD software is a user interface for SCT's RockSHIELD geotechnical monitoring hardware. Available as an android app for easy data collection on a handheld tablet or as a web app for use via a remote computer.

RockSHIELDs dedicated software provides a comprehensive and easy to use configuration and monitoring application for mine personnel who need to identify and act on possible movement (displacement and shear) within the rock mass in an underground environment.



Software user interface provides:

Simple and intuitive user interface

Current shift, previous shift and daily trending

SmartTELL-TALE and SmartSHEAR commissioning and installation interface

Easy Wi-Fi connection to sensors and stored data

Analysis interface in tubular or graphical formats

Export and download data to a .csv file for further analysis

Configurable alert threshold

