+

GMS-Prism

The GMS-Prism (Geotech Monitoring Station) is designed as a long-term, background monitoring tool.

Highly accurate, the system tracks and monitors prisms installed on the area of interest.

MAKING MINING SAFER

It specialises in monitoring open cut pits and highly vegetated slopes, and detecting and measuring deformation on tailings dams, dumps and cuttings.

Whether choosing the GMS-Prism or its sister-model, the GMS-Dual, both systems are equipped with a range of features that take them well beyond the capabilities of typical robotic total stations, including smart data capture, intuitive visualisations and a powerful camera suite.

groundprobe.com

Features and Benefits

HIGH ACCURACY POINT MEASUREMENTS

The GMS-Prism measures and displays deformation for prisms with high accuracy.

Prism Points are highly accurate, can be scanned from long ranges, and are fast to scan.

All measurements are processed and ready for analysis at the end of each scan, enabling early detection of movement.

For additional accuracy, the vector movement in 3D is also measured, giving users a better understanding of ground conditions with the benefit of both readings.

POWERFUL DATA VISUALISATION AND ALARMING

No longer relying on basic spreadsheets, all data from the GMS is intuitively visualised in GroundProbe's patented software, SSR-Viewer.

Users are given access to its entire suite of charting, analysis and alarming tools, gaining the full benefits that our radar customers are accustomed to on top of a range of features developed specifically for the GMS.

DUAL CAMERA IMAGING

The GMS is equipped with dual cameras offering three levels of zoom.

The wide-angle camera captures broader scope images of the points while monitoring occurs.

SSR-Viewer then automatically aligns all photographs into one panoramic scene to produce a vivid, high definition image.

With the second camera attached to the telescope, users can not only precisely see and control the location of their points, but also capture its details.

REMOTE VISUAL INSPECTIONS

Users can control the unit from the software to carry out a visual inspection in real time.

The GMS laser uses a high-power telescope that is also used for camera imaging, with an extreme level of zoom not found in traditional cameras.

This allows customers to remotely inspect areas from their desk, at a level often not possible in a standard pit inspection.

DATA AND IMAGE CO-REGISTRATION

In SSR-Viewer, high-definition images are co-registered with the data generated by the GMS.

The data is visualised as a deformation heatmap and draped directly over the image, providing spatially co-located information of every point.

By clicking on any part of the image, movement can be reviewed and assessed live.

AUTOMATIC PRISM COLLIMATION

Prism Points are automatically tracked and located at every scan.

There are two lasers on board; one for measuring deformation and one dedicated to prism collimation.

This ensures that even if a prism is moving, its location is never lost, without ever relying on historical data for coordinate information.

The GMS hunts for, finds and locks Prism Points into their exact position with each and every scan.

MONITORING NEVER STOPS

With a built-in failsafe for increased robustness, the GMS will never miss a scan, much unlike other systems on the market.

Through its on-unit processing and our software's trusted data sync feature, the GMS will continue to collect data, even if the Wi-Fi is lost or the Primary Monitoring Point is shut down.

MULTI-SENSING MONITORING

All data collected can also be directly imported into data aggregation software MonitorIQ, allowing users to visualise GMS and other geotechnical sensor data in a standardised format to run analysis, discover trends and generate powerful reports.

TWO WAYS TO MONITOR

For ultimate flexibility, the GMS-Prism can also be used a periodic monitoring tool to suit differing site needs.

Multiple areas can be scanned at regular intervals using the one device, allowing periodic coverage of typically active areas.

AUTOMATED GEO-REFERENCING

The GMS has fully automated geo-referencing capabilities, needing only two reference points with known coordinates.

Any prism coordinates and/or the GMS device location can be nominated as reference points.

Data is fully geo-referenced, and coordinates are updated and exportable on every scan.

decision confidence™