



Client

Network Rail

Start Date

2007

Completion Date

Ongoing

System

- Draw wire sensors
- Rain gauge
- Real-time cameras
- ARGUS monitoring software

Overview:

Hooley Cutting, on the main London to Brighton line, has often proved problematic for Network Rail. Steep sided beyond 70 degrees, but vertical in places, the site has suffered from occasional slope failures which have caused disruption to the railway.

Network Rail called in ITM Monitoring to assist in the design of a monitoring system to alert engineers to the occurrence of any slope failure. After inspecting the site, ITM Monitoring and Network Rail agreed on a system that measures changes in the shape of the drapery containment fence at the toe of the slope, which would result from a slope failure.

To achieve this, ITM Monitoring installed a system of draw wire sensors to measure, in near real time, the distance from the drapery net to the king post retaining wall in the CESS. Data from these were sent via on-site data loggers direct into state-of-the-art monitoring software. To help validate any alarm notifications from the site, two real time cameras were installed above the tunnel portal viewing down the cutting, images from which are viewed live via the web based monitoring software.