

Test research about research method as well as monitoring of rock slope

[Point]

For the purpose of improving assessment method of measuring technique as well as measured value of rock collapse risky areas, behavior measurement was conducted by setting an instrument on the rock slope of totally 15 sites, and in-situ application possibility as well as its limitation of rock monitoring and rock collapse prediction method were studied, based on the measurement results. Natural collapse phenomenon in a falling style was observed in one of the measured sites on the instrument as well as on the image. As a result, the following four methods could be suggested.

1. A method of correcting measurement data that is influenced by temperature and a method of detecting cumulative displacement that may lead to rock collapse.
2. Noncontact displacement measurement method by image analysis.
3. Detection method of collapse signal symptom by AE measurement.
4. Measurement instrument arrangement method according to the type of collapse.

Including points to remember upon measurement, in addition to the above, “Rock collapse monitoring guideline (proposal)” was created by putting research outcome together.

Keywords: rock collapse, monitoring, image analysis, AE measurement