MINDI program

Mining Industries Data Initiative

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MINDI program - Mining Industries Data Initiative

Background

- Large quantities of data is today stored but not actively used
- Relevance of collected data
- Visualization of collected data
- Utilisation of data for information extraction is far from optimal in the mining sector

Purpose

The MINDI program shall contribute to increased mining productivity by take advantage of the potential to use available data to improve knowledge and control of the production processes

Duration

2017 - 2020

RTC
ROCK TECH CENTRE

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Objectives

- Increase productivity in mining operation
- Participating mining companies to:
  - developed a strategy and architecture for handling data
  - increased their knowledge and understanding of how they should utilize their data resources
- Stakeholders will benefit from well-described principles for how data can be exchanged and who owns data, business principles, etc. between different organisations.

Scope of work

The participants of the MINDI program have identified 4 subprojects - in line with the purpose and objectives for the program.

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Data Market

Investigation into what is needed for sharing and utilising data from many different sources.

Since data exchange is fundamental for the entire MINDI program, an important purpose of this subproject is to create a foundation for the remaining subprojects in this program

Status: Final report may 2018

Predictive maintenance

The project identify a user case and develop and test a first version of a solution using new analyse methods for large data volumes. A well-performed predictive maintenance will contribute to increased system availability and user availability.

Status: Ongoing

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A shared (3D) model of the mine and the ore body

A multidisciplinary approach on data dissemination with increased communication between different disciplines. A common model in a mining operation would with great probability lead to increased understanding and knowledge about the geological conditions, for geologists, rock mechanics and mine planners.

The project shall, for the mining companies, identify and show the business value of the use of such a model.

Status: Ongoing

Production process optimisation

Optimise the production process in order to enable higher quality through optimisation of the production process parameters (e.g. drill hole patterns, Crushing parameters) using machine learning.

The project will build a model in order to analyse and understand the relation between early steps in mining process, rock properties and the output from the mine.

Status: Not started