

Performance Analysis of Continuous Resource Model Updating in Lignite Production

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Abstract Recently an efficient updating framework was proposed aiming to improve the raw material quality control and process efficiency in any type of mining operation. The concept integrates sensor data measured on the production line into the resource model and continuously provides locally more accurate resource models. A demonstration in lignite production is applied in order to identify the impurities (marine and fluvial sands) in the coal seams to lead better coal quality management. The updating algorithm applies different algorithmic parameters.

This study aims to investigate the sensitivity of the performance with respect to different parameters for optimal application. Main parameters include the ensemble size, localization and neighborhood strategies and the sensor precision. The results should assist in future applications by determining the impact of the different parameters.