Digitalization in Aggregate Quarries

Authors : José Eugenio Ortiz, Pierre Plaza, Josefa Herrero, Iván Cabria, José Luis Blanco, Javier Gavilanes, José Ignacio Escavy, Ignacio López-Cilla, Virginia Yagüe, César Pérez, Silvia Rodríguez, Jorge Rico, Cecilia Serrano, Jesús Bernat

Abstract : The development of Artificial Intelligence services in mining processes, specifically in aggregate quarries, is facilitating automation and improving numerous aspects of operations. Ultimately, AI is transforming the mining industry by improving efficiency, safety and sustainability. With the ability to analyze large amounts of data and make autonomous decisions, AI offers great opportunities to optimize mining operations and maximize the economic and social benefits of this vital industry. Within the framework of the European DIGIECOQUARRY project, various services were developed for the identification of material quality, production estimation, detection of anomalies and prediction of consumption and production automatically with good results.

Keywords : aggregates, artificial intelligence, automatization, mining operations
Conference Title : ICMGMET 2024 : International Conference on Mining Geology and Mining Exploration Technologies
Conference Location : Istanbul, Türkiye
Conference Dates : May 02-03, 2024