

DEVELOPMENT OF NEW MODELS FOR GEOMECHANICAL CHARACTERISATION USING DATA MINING TECHNIQUES

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ABSTRACT

The evaluation of geomechanical parameters for rock masses is one of the issues with largest uncertainty degree. This is mostly true in the preliminary stages of design and in small works where geotechnical information is normally scarce. In these cases, geotechnical data from past projects could help in the definition of design values for the parameters. Data Mining techniques have been successfully used in many fields. They are advanced techniques which allow to analyse large and complex databases like the ones it would be possible to build with geotechnical information. In this context, it was intended to gather a large database of geotechnical data and use these innovative tools to analyse and induce new and useful knowledge. The main goal was to develop new and reliable models to predict geomechanical parameters values mainly when only limited data is available.

KEYWORDS: Geomechanical parameters evaluation, Data Mining, databases

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