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List of Abbreviations

<i>CRI</i>	Coal Roof Index
<i>RMR</i>	Rock Mass Rating
<i>CMRI-RMR</i>	Central Mining Research Institute – Rock Mass Rating
<i>CMRR</i>	Coal Mine Roof Rating
<i>RLF</i>	Rock Load Factor
<i>LTH</i>	Layer Thickness
<i>SF</i>	SF
<i>Gw</i>	Groundwater Flow Rate
<i>SDI</i>	Slake Durability Index
<i>UCS</i>	Uniaxial Compressive Strength
<i>FOS</i>	Factor of Safety
<i>GSI</i>	Geological Strength Index
<i>RLH</i>	Rock Load Height
<i>M-C</i>	Mohr-Coulomb (failure criterion)
<i>H-B</i>	Hoek–Brown (failure criterion)
<i>RMSE</i>	Root Mean Square Error
<i>PZ</i>	Plastic Zone
<i>ISRM</i>	International Society for Rock Mechanics
<i>FDM</i>	Finite Difference Method
<i>FEM</i>	Finite Element Method
<i>DEM</i>	Discrete Element Method
<i>FLAC3D</i>	Fast Lagrangian Analysis of Continua in 3 Dimensions
<i>TDEPPSS</i>	Time-Dependent Elastic-Perfectly Plastic-Strain Softening

List of Symbols

m, s, a	Hoek–Brown strength parameters
σ_c	Uniaxial Compressive Strength
σ_V	Vertical Stress
σ_h	Horizontal Stress
γ	Unit Weight of Rock
H	Depth of Gallery
w	Width of Gallery/Roadway
h	Height of Gallery
D	Rock Density
ε_p	Plastic Strain
ε	Strain
MPa	Megapascal
R^2	Coefficient of Determination
m_{rm}	H-B Strength Parameter m for Rock Mass
s_{rm}	H-B Strength Parameter s for Rock Mass
m_{rmt}	Reduced H-B Strength Parameter m after t Time
s_{rmt}	Reduced H-B Strength Parameter ‘ s ’ after t Time
β	Strength Reduction Coefficient with Time
t	life of the Gallery

