

Project Title: Hazard Assessment during Drill & Blast tunnelling in rock mass

Abstract:

Drill and blast is commonly used in construction of rail, road, metro & hydro tunnels, deep shafts, caverns etc. Control of Peak Particle velocity (PPV) is of paramount importance in these applications because high PPV values can introduce hairline cracks in the buildings that may propagate, grow wider and even cause failure. Hence analysis that relates PPV with overburden and scaled distances for different strata is proposed to be conducted for rock mass.

Objectives: Estimation of PPV during drill & blast excavation of tunnels in rock mass and development of correlation charts between PPV, overburden and rock mass quality.