

National Mineral Awards – 2007

Mining Technology (including, application of new methods, innovative techniques and development of technology for underground and open pit mining, research & development leading to increase in productivity, conservation of mineral resources, systematic mine planning, concurrent mine reclamation & rehabilitation and dimensional stone mining)

Dr. Pradeep Kumar Singh, Scientist 'E-II', Central Mining & Fuel Research Institute, Dhanbad has carried out research on the stability of underground coal mines and related structures from blast induced vibrations. He has developed a new blast damage index to calculate the likely damage to underground openings due to dynamic loading and blast vibration predication model that has helped in the safety and productivity in coal mines.

Studies conducted by Dr. Singh to address the hazards of big blasts in opencast mines has suggested that increasing the minimum delay interval between initiation of detonations from 8 to 17 m s of the explosives from the bottom of the blast holes at sub-grade level helps in avoiding the damage to the surrounding structures.

The research work done by Dr. Singh has been recognised by the Directorate General of Mines Safety (DGMS) and new guidelines have been issued to the mine operators for increasing the safety. He has also undertaken a study for preparation of blast vibration standard for the safety of structures from opencast as well as from underground blasting operations at the behest of the Ministry of Coal.

In recognition of his valuable contribution in the field Mining Technology which has led to enhance the safety and productivity in coal mines, National Mineral Award - 2007 is conferred upon Dr. Pradeep Kumar Singh.