

IT And Digitalisation Initiatives in Mining

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Coal PSUs have adopted the following digitisation and Information Technology (IT)-based initiatives in their mining operations to improve efficiency and transparency in coal production and delivery—

Coal India Limited -

- (i) Integrated Command and Control Centre (ICCC) to manage multiple operational and security functions across strategic location of mining areas to facilitate 24x7 electronic surveillance & alert generation.
- (ii) Operator Independent Truck Dispatch System
- (iii) e-MB and e-Billing Portal
- (iv) Centralized Safety Information System (CSIS) for effective monitoring and implementation of safety initiatives, and to improve the effectiveness of safety inspections.
- (v) Continuous Ambient Air Quality Monitoring System (CAAQMS)
- (vi) Digital Transformation initiatives (Digicoal) to strengthen decision-making and performance through data-driven insights and advanced digital technologies.
- (vii) Employee Resource Planning (ERP) initiative
- (viii) PM Gati-Shakti-National Master Plan for enabling identification of transportation routes and find out gap projects, identification of suitable routes for railways, powerlines and pipelines.
- (ix) Development of Khanan Prahari Mobile App and associated Coal Mines Surveillance & Management Portal (CMSMS) for reporting and action on illegal mining reports done by any Indian Citizen.

The Singareni Collieries Company Limited -

- (i) implementation of various modules of SAP (ERP) since 2008.
- (ii) Global Position System / Vehicle Tracking System based coal transport vehicles monitoring system implemented.
- (iii) CCTV surveillance coverage is deployed for specific & important locations.
- (iv) Operator Independent Truck Dispatch System (OITDS)
- (v) Use of Drone for limited purpose.

NLC India Limited -

- (i) Operator Independent Truck Dispatch System and Geo-fencing technology using GPS technology have been implemented for tracking equipment deployed in mine.
- (ii) Implementation of Digital Logistic Management System (DLMS), a comprehensive solution to meet the logistic and security needs associated with the coal dispatch operation.
- (iii) Using 3D TLS with GNSS Receivers for volume measurement.

Ministry of Coal has launched a Khanan Prahari Mobile App and Coal Mines Surveillance & Management system (CMSMS) web App for reporting the incidents of theft of coal and illegal mining of coal by citizens and to enable law and order authorities to take suitable action on the complaints in time. Further, the initiates taken by coal PSUs help to ensure real-time monitoring of operations.

This information was given by Union Minister of Coal and Mines Shri G. Kishan Reddy in a written reply in Rajya Sabha today.

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