

WirelessMine



THE COMPANY

PervCom Consulting Pvt. Ltd. offers complete business solutions for **increasing mine productivity** and **improving safety and performance of mining assets** in both **opencast** and **underground mines**.

The solutions are based on PervCom's **seven patent-pending proprietary wireless tracking and sensing technologies** that combines the benefit of **IEEE 802.15.4 wireless mesh networking system with GPS based navigation system** in order to *overcome the limitations of GPS-Only systems.*

WIRELESS SOLUTIONS FOR IMPROVING PRODUCTIVITY & SAFETY IN OPENCAST MINES

The production of an Open Cast Mine is heavily dependent on the operational efficiency of the mining assets such as Dumpers, Drill Machines, Shovel, Dozers etc. Maximizing their utilization through real time location monitoring and control can improve the production by a great extent. PervCom offers specific wireless mining solutions for improving the utilization, safety and production efficiency in Open Cast Mines –

- **DumperTrace**
- **DumperShield**
- **DumperHealth**

DumperTrace: Enables you to monitor the utilization pattern of Dumpers in real time & online, autonomously counts number of trips made, movement pattern analysis, utilization monitoring of Shovel & Drill machines etc.

DumperShield: Dual-alarm collision warning system with audio-visual alerts for protecting possible collision between Dumpers.

DumperHealth: Monitor the machine condition of the Dumpers in real time.



ENSURING COMPLETE VISIBILITY & ACCOUNTABILITY

Complete asset visibility with their utilization, performance, and productivity analysis without any manual intervention. Get automated reports on the mining asset performance, and indication of production on your cell phone or personal computer (daily, weekly)



FAIL PROOF TECHNOLOGY

System uses GPS as well as wireless locating technology with dual radio channel (GSM network & 2.4GHz band) for ensuring reliable data transmission. Solar power rechargeable battery back-up ensures smooth operation even in power failure



ENSURING SAFETY OF HIGH-VALUE DUMPERS & MINERS

Generate visual early warning and proximity audio warning to drivers of dumpers on detection of any impending dumpers, miners or fixed hazards within its vicinity

- **DumperTrace** offers easy monitoring and co-ordination of regular mining operation. It **calculates the actual trip count** based on dumper's real time location and movement pattern with the use of GPS and wireless real-time localization technology. It also stores and replays a particular dumper's shift operation for future authentication. DumperTrace improves utilization of equipments through **instantaneous alarms to idle/ stationary dumpers, automatic message to control station on dumper breakdown, faster re-allocation of dumpers, in case of breakdown, reduction of downtime, online reporting on availability and utilization of dumpers,**
- **DumperShield** gives the dumper driver a two stage active audio-visual warnings against possible collision with other dumpers, workers and fixed hazards like crib huts etc. while dumpers are in operation in the mine pit. The system uses GPS and Radio Frequency based proximity sensors to accurately identify a possible collision scenario. DumperShield offers 360° viewing with zero blind spot. It also protects the dumpers with automatic dump yard perimeter detection.
- **DumperHealth** automatically detects and monitors the operational parameters of the essential components of Dumper & generates alerts for maintenance related issues.



Wireless Mine

