Expanding Our Digital Footprint

DRISHTI

Our Drishti programme is running successfully and provides targeted benefits. This year, we have added many modules into this programme, including integration of different systems, advanced process controls, AI/ML based data analytics, use of IoT technologies, and remote monitoring and control.

Use of AI/ML based analytical modules

Use of image processing technologies enabled us to identify any unsafe act or conditions on the shop floor

Developed this model to check the physical quality of FG, and detect defects to take timely corrective action

Deployment of advanced process control at mills

1% increase in metal recovery and optimised concentrate grade control with the help of APC. Tighter process control with reduced standard deviation

Integration of shaft system with integrated data platform

Real-time visibility of operations, cycle time analysis, fill factor monitoring, and improvement

Smoke hours drilling using automation features

~10% additional production drilling by utilising automation features and tele-remote operations of drills during shift change over

Use of IoT technologies to deploy smart sensors on remote equipment

Real-time monitoring and control of remote assets, like steam trap health, vibration of critical drives, water ponds level and UG fleet utilisation etc.

Integration of laboratories with integrated data platform

Real-time visibility of analytical data to operational team to enable timely action. Lab data is integrated with DCS to improve operational efficiency and product quality

Condition-based monitoring and Real-time Reliability Health Index (RHI) of critical assets

Using real-time data of critical assets, we have developed CBM and RHI which have helped in improvement of availability, reliability, and efficiency of equipment

Utilisation of 3-D mine visualisation for assets tracking

Real-time visibility of underground fleet has helped us to reduce the ramp jam incidents and duration and improve asset utilisation

Integration of ventilation fans and sub-stations in UG mines

Real-time assets health and performance monitoring, faster troubleshooting, and increased UG fleet utilisation

Automated process data analysis: Real-time process score card, CpK analysis and SPC charts, automated process deviation alert, and SAP notification

Real-time access of process analytics enabling process optimisation by quick response

Key Actions Taken Benefits