



**CIL INNOVATION &
INCUBATION CENTRE**



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IIT(ISM) Dhanbad



कोल इण्डिया लिमिटेड
Coal India Limited
भारत सरकार का उपक्रम
A Government of India Undertaking
एक महारत्न कंपनी A Maharatna Company



Start-ups pre-incubated under CII Centre



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Pinacle Depth Mine Management & Services Pvt Ltd

Title of Project: Electronic Borehole Compass - An indigenous device to determine the borehole trajectory



Spire Viz Pvt Ltd

Title of Project: 360-Degree Mine Simulator



Joymettec Pvt Ltd

Title of Project: MinoVR – Mine to Meta



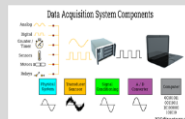
Geo Lib Pvt Ltd

Title of Project: Design and Development of an automated borehole televiewer

Ongoing Projects



Prevention of coal pilferage in mining using AI & IOT and development of mechanical sampler



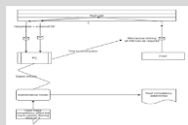
Development of Cost - Effective Data Acquisition System



Development of electronic Clar Compass



Payload monitoring of loading equipment (Shovel / Excavators) displayed in the operator's cabin



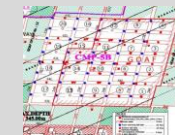
Automation in UG mines roof competency (strength) test



Day to day tracking of human resources for entry and exit out of UG mines



Health ATM



Instrumented Rock-bolt Extensometer Load measuring devices

COLLABORATION



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Microsoft for Startups

- Up to **\$150,000** Azure credits to the start-ups of CII Centre
- Mentorship from business leaders and technical experts all around the globe
- GitHub and Visual Studio Core for developer collaboration
- Powerful development and productivity tools including Microsoft
- CII Centre may use Microsoft logo in his partner offerings to the start-ups and start-up program related social media announcements.



- SIPL will provide fund to IIT(ISM) Dhanbad for development of Industry 4.0 platform in CII Centre

Focus area

- Application of Industry 4.0 (IOT, AI, Big data analytics, cloud computing etc.) for machine failure analysis, predictive maintenance of HEMM, SMP, environmental monitoring and control, coal quality analysis, auto-evaluation of tender, enhancing availability and utilization of HEMM, etc.
- Augmented Reality for training remote maintenance of plant and machine, risk identification and risk assessment, performing mock rehearsals, mine simulation, etc.



- **\$50,000** in Aws Activate credits to the start-ups of CII Centre
- Mentorship from business leaders and technical experts all around the globe
- CII Centre is an AWS activate partner who can approve the benefits of the start-up's



- Collaboration in the area of Storage, cloud computing, AI and Big data analytics
- Mentorship from business leaders and technical experts all around the globe
- NetApp India will help start-ups in arranging the funds by connecting them to the VC's.