## National Institute of Technology Rourkela

## Departmental Seminar

Seminar Title : Centers of Excellence in Mining Engineering in India and Abroad: A Comprehensive Overview

Speaker : Prof. D.P.Tripathy Supervisor : Prof. S Ram

Venue : Seminar Room, Mining Engineering Department

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Abstract : Establishment of Center of Exce

: Establishment of Center of Excellence (CoE) in mining is a body that provides leadership, best practices, research, support, training of trainers and skill training for mining sector/s. It is a group with a shared area of focus and subject matter expertise that they use to support others, usually by providing insights, training and research. The concept of a center of excellence is to build out key processes, establish a methodology and develop expertise across the enterprise and is typically based on technology, critical process, new skill, or application – to help the organization adopt it and become efficient in the focused area. Typical COE focuses on operational excellence. There are four important benefits of centers of excellence: adoption, implementation, maintenance and expertise. Centers of Excellence are established in different organizations and countries to solve complex problems in mining industry to increase operational efficiency, safety and profit through continuous improvement and asset optimization. The different areas of focus can be: safety and mine environment, AI-ML/VR & automation and robotics, geo-mechanics, advanced computing and innovations, renewable energy, critical minerals, design of stopes etc. In the paper, an attempt is being made to highlight and comprehensively overview different Centers of Excellence in various domains of Mining Engineering established in India and abroad (US, Canada, Australia etc.) and their performance/utility in offering domain specific technical/innovative solutions to address mining problems competently and effectively.