CEAI Consulting Engineers Association of India

WEBINAR ON

IMPORTANCE OF FACE LOGGING AND GEOLOGICAL CHARACTERIZATION IN TUNNEL CONSTRUCTION

20th May 2026 (Wednesday) at 4:00 PM (IST)

Tunnel construction is highly dependent on understanding the geological conditions encountered during excavation. This session focuses on the critical role of face logging and geological characterization in identifying rock types and assessing ground conditions in real time. It introduces the fundamental concepts of tunnel geology, methods of observing and recording geological features at the tunnel face, and techniques used to classify rock masses.

The content provides insights into how geological data collected during face logging supports decision-making in excavation methods, support design, and overall tunnel safety. It also highlights practical challenges such as variable ground conditions and groundwater inflow, along with real-world examples from tunneling projects.

In addition, commonly used rock mass classification systems and their practical application in the field are explained. Guidance is provided on interpreting geological observations and converting them into engineering decisions. The importance of accurate and systematic data recording is emphasized to avoid costly errors during construction. Practical tips for improving observation skills at the tunnel face are included. Modern tools such as digital mapping and monitoring techniques are briefly introduced. Key differences between theoretical knowledge and actual site conditions are also discussed, along with best practices followed in major tunneling projects.

This session is suitable for civil engineering students, geotechnical professionals, and anyone interested in understanding the practical aspects of rock identification and geological assessment during tunnel execution.

Speaker

Dr. Juned Alam
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Moderator

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