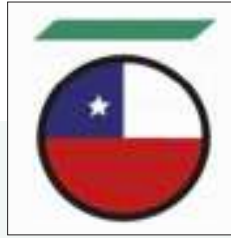


Chile



Name: Committee of Tunnels and Underground Spaces (CTES)

Type of Structure: Non profit, open association

Number of Members: 76 Members (57 are companies from the industry)
Corporate Members: 1 Category Premium 17 Category Gold, 39 Category Associated and 19 Individual members.

ASSOCIATION ACTIVITIES DURING 2022 AND TO DATE

[January 13th, 2022] 10 Years CTES Fellowship Meeting / face-to-face activity / 52 assistants

[January 11th, 2022] Webinar "Operation and emergency management in highway mega-tunnels in Europe" / online activity / 81 attendants

[March 17th, 2022] NTN Meeting - Norwegian Talk/online activity / 55 attendants

[March 29th, 2022] Webinar "Rectangular tunnel in rock - A new way forward" / online activity / 102 attendants

[April 26th, 2022] Webinar "Evaluation of the behavior of shotcrete in fibers and meshes in underground holdings" / online activity / 100 attendants

[May 25th, 2022] Webinar: "TBM Crossover Experience in the Condors' Project" / online activity / 103 attendants

[June 29th, 2022] Webinar "Large national projects - Future lines of the Santiago Metro" / online activity / 244 attendants

[June 13th, 2022] ROCKBURST SUMMIT: underground experiences in bursting rocks in Chile and abroad. /Hybrid Activity / 93 attendants

[August - September 2022] Technology Mission Norway - Sweden / face-to-face activity / 19 attendants

[September 2022] Visit ACTOS Colombia / Visit to El Teniente Mine and CIO Rancagua

[October 27th] Summit National and International Experience in Microtunneling / Hybrid Activity / 84 attendants

[November 17th, 2022] Webinar "Measurement of early strength in

Shotcrete" / online activity / 173 attendants

[November 24th, 2022] Webinar AVO II "Presentation of the AVO II Project" / online activity / 205 attendants

[December 6th, 2022] Webinar "Underground Megaprojects - Line 7 Progress" / online activity / 126 attendants

FUTURE ASSOCIATION ACTIVITIES

Seminar - "Mechanized Excavation in Civil Works and Mining" (Organized by HK - CO ORGANIZA CTES)

National and International Summit - "Experiences, challenges and opportunities in vertical developments in Mining and Civil Works"

Summit - "Drilling steel importance in costs and productivity in tunnel development"

Summit - "Automation and digitization in tunneling" Sandvik

Summit - "Cavern design and construction"

Summit - Underground geotechnical exploration

Technological Mission

Summit - "Safety in mines, tunnels and underground works. Unoptimized: Fire System - Lighting - Signage

Latin American Congress of Tunnel and Underground Space Committees - Santiago 2023: 12 entities will participate in the Congress.

- Argentina - Aates
- Bolivia - Abotúnel
- Brasil - Cbt
- Chile - Ctes
- Colombia - Actos
- Costa Rica - Acros
- Ecuador - Aime
- España - Aetos
- Mexico - Amitos
- Mexico - Mexico Subterráneo
- Perú - Aptos
- Portugal - Cpt

CTES CAMARADERIE MEETING - Closing 2023

STATISTICS

1. List of tunnels complete

Second stretch of El melon tunnel
Highway Vespucci Orient I

2. List of tunnels under construction

Extension Line 2, Extension Line 3, Line 7, East Vespucci Highway 2, The Condors Hydroelectric Plant

In Chile, underground mining provides a great demand for the construction of tunnels and shafts for exploitation, with a level of activity approximating:

Tunnels 80,000 to 100,000m/year

Pikes 8,000 to 10,000m/year

EDUCATION ON TUNNELLING IN THE COUNTRY

Postgraduate Diploma in Tunnels and Underground Spaces; Universidad de Chile
Diploma in Modern Tunnel Excavation Techniques; Universidad de Santiago de Chile
Undergraduate Programs in Civil Engineering Mining (University of Chile, University of La Serena, University of Santiago of Chile, Universidad Adolfo Ibañez and others)