# **ITA Activity Report 2021**



The information supplied with be published in the ITA Activity Report magazine and published with the June/July issue of Tunnelling Journal. Please complete the form below (please type everything in upper and lowercase – no CAPITALS) and return it to secretariat@ita-aites.org (or <a href="mailto:dropbox">dropbox</a>) no later than February 28, 2022. The 2021 report magazine is available on ITA website -

Name of Country: Brazil

Name of Association: Brazilian Tunnelling Committee (CBT)

**Type of Structure:** CBT is a committee of the Brazilian Society for Soil Mechanics and Geotechnical Engineering (ABMS). It is an open society based on membership

Number of Members: 217 Individual Affiliate Members and 10 Corporate Affiliate Members.

TUNNELLING COMITÉ BRASILEIRO DE TUNEIS

**Association logo:** 

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## Association Activities during 2021 and to date

January

20th - Webinar CBT - "Safety on tunnel design" - Roberto Kochen"

28th – Webinar CBT – "Predicting tool wear in soils and planning the cutter head intervention strategy - Marc Comulada e Ulrich Maidl,

29<sup>th</sup> – Online tunnelers chat – chat regarding Morro Alto Tunnels

February

11th – Invisible construction that protect a city: Lisbon: PGDL - Gonçalo Mendes Diniz Vieira

26<sup>th</sup> – Online tunnelers chat

March

11th - "Perspectives on Underground Space: Past, Present, Future" – Antonia Cornaro

17th - webinar with Portuguese geotechnical society about Jet Grouting Solutions. - Akira Koshima

25th – round table about woman on underground excavation.

26<sup>th</sup> - Online tunnelers chat

April

8<sup>th</sup> webinar cbt – Operational safety on underground construction. – Ricardo Miranda

22th webinar CBT – TBM operation followup - Lars Badendererde and Gustavo Aquiar

30th - Online tunnelers chat

May

6<sup>th</sup> – webinar CBT – Emerald geomodelling - André Araujo Silva

27<sup>th</sup> – webinar CBT - Digital transformation and the application of Building Information Modeling in tunneling" - Janosch Stascheit e Felix Hegemann

28<sup>th</sup> - Online tunnelers chat

June

17th - Webinar CBT - "samall diameter tunnels in Calgary, Canadá" - Heinrich K. Heinz

25th - Online tunnelers chat

July

15th - "Evolution in products and services on blasting - José Silvio Corsini

30<sup>th</sup> - Online tunnelers chat

August

27th - Online tunnelers chat

September

24th - Online tunnelers chat

## Association Activities during 2021 and to date

October

29th - Online tunnelers chat

December

01<sup>st</sup> to 04<sup>th</sup> – 5° Brazillian Tunnelling and Underground Structures Congress and Latin American Tunnelling 2021.

Online tunnelers chat: is a online meeting to congregate the Brazilian tunnel community, the idea is to connect seniors professionals and students on a unformal chat.

## **Publication:**

**Journal: Soils & Rocks** (www.soilsandrocks.com.br), in English, published by the Brazilian Society for Soil Mechanics and Geotechnical Engineering (ABMS), the Brazilian Association for Engineering Geology and the Environment (ABGE) and the Portuguese Geotechnical Society (SPG). Three issues are released per year. The following volumes were published in 2021:

Volume 44, N. 1, January-March 2021 - 9 articles 5 technical note 1 case study -

**Volume 44, N. 2, April – June 2021** – 9 articles, 4 technical note, 2 case study, 1 discussion, 1 lecture and 1 editorial.

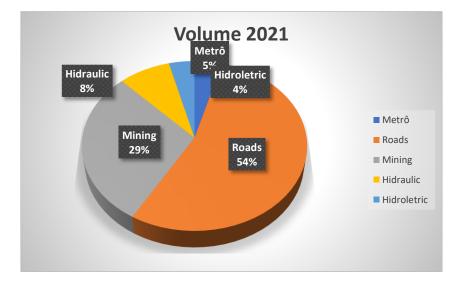
**Volume 44, N. 3, July -September 2021 -** 8 articles, 2 technical note, 2 review article, 1 discussion, 1 lecture and 1 editorial.

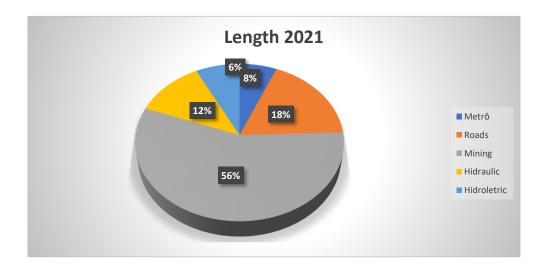
**Volume 44, N. 4, October-December 2021** – 9 articles, 1 technical note, 1 case study, 1 lecture.

**Press and social media:** articles on CBT website; mailing on CBT@News; and posts on Facebook, Instagram and Linkedin.

# **Current Tunnelling Activities**

The extimated total volume of tunnels excavated in Brazil is 819.000 m³ in 21,3km of tunnels. It includes roads, railways, hidrolectric faciliites, mining and hydraulic. The distribution, in percentage is:





# **Future Tunnelling Activities**

- New concessions around the country bring some previsions for new tunnels in SP, RJ, RS, but probably later than 2022;
- In Sao Paulo, Metro line 2 will start TBM excavations in 2023.

### Pictures/Video

#### **Statistics**

- 1. Length or volume excavated 21,4km 5 % mechanized / 95 % conventional during 2021
- 2. Amount (USD or EUR) of tunnelling / underground space facilities awarded in 2021 USD 180 MI
- 3. List of tunnels completed: Tamoios Road, PCH Alto Farias
- 4. List of tunnels under construction: Contorno de Florianópolis Road, Contorno de Caraguatatuba Road, Line 6 Sao Paulo Metro, Line 2 Sao Paulo Metro, Fortaleza Line 2 Metro.

## **Education on Tunnelling in the Country**

No undergraduate courses in Brazil that focus on tunnel Yet. Some universities have one or two disciplines related to underground construction, like Makenzi, USP, UNB.

On post graduate courses our references in Brazil are Brasilia Federal University and São Paulo Federal University, São Carlos school. Efforts are been done in order to spread the knowledge in tunnelling, by CBT mainly, one is the set up of specialization course in Tunnels, organized by CBT together with River Sinos Valley University, it will start in 2022 july.

# **Completed By**

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Should we have any questions or need any additional information we will contact you

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