



XXVI Brazilian Meeting on Mineral Processing and Extractive Metallurgy

18th to 22nd October 2015







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1. INTRODUCTION

This project aims at advertising the practical actions for holding the XXVI Brazilian Meeting Meeting on Mineral Processing and Extractive Metallurgy (ENTMME) promoted by the Federal University of Alfenas (Unifal-MG), which offers a Mining Engineering graduation course in its advanced campus of Poços de Caldas. The Meeting will be held in Poços de Caldas, state of Minas Gerais, from 18th to 22nd October 2015.

In its 26^{th} edition, the Brazilian Meeting on Mineral Processing and Extractive Metallurgy celebrates its 42^{nd} anniversary in 2015 as Brazil's most important gathering of the industry in this area.

It must be pointed out that there is no trade or professional association that gathers together the extractive metallurgists and ore processing specialists. Each edition of this conference is organized by a different university, private company or research institute, and it plays an extremely important role as an agent of culture dissemination, knowledge updating and fostering the association among professionals.

The ENTMME's target audience comprises researchers, professionals, managers, teachers and students from universities and research institutions in the mineral, metallurgical, environmental and water resource fields. The event aims also at service providers, consulting firms and other professionals in the environment, metallurgy and mining areas. The event is a great opportunity for discussions, and it improves and qualifies its activities in every edition by enhancing the publicity of the mineral and metallurgical activities and enabling the participants to engage in profitable networking with the resulting professional growth. Researchers and professionals from all over the country are expected to participate.

A poll conducted during the closing meeting of the XXV ENTMME (Goiânia/GO) chose Poços de Caldas as the setting for the XXVI ENTMME. The main factor behind the choice was the fact that the state of Minas Gerais is a large ore producer, with a wide range of industrial rocks and ores, such as iron ore, niobium, gold, zinc, phosphate and aluminum. Not to mention mineral water, precious stones and decorative rocks. In this sense, Poços de Caldas is one of the municipalities in the state with a significant ore production. Moreover, Unifal-MG offers a Mining Engineering graduation course in the city.

The city is known for its excellent location, close to the main Brazilian cities, and for its important ore and industrial production as well. It is also one of the main tourist areas in southern Minas Gerais, famous for its pleasant weather and sulfur waters.

The XXVI ENTMME will be a major achievement for the Brazilian mineral industry, the state of Minas Gerais and particularly the Federal University of Alfenas' Poços de Caldas campus and the course of Mining Engineering, in view of the great visibility they will enjoy in the Brazilian mining and metals scenario.





1.1. Conference venue

The XXVI ENTMME Meeting will be held at Palace Casino in Poços de Caldas (Park José Afonso Junqueiras, s/n, Centro). Built in the 1930's, it was a luxurious casino for a long time and is nowadays deemed a historical and architectural heritage. The Palace Casino was completely refurbished, restored and upgraded to offer suitable facilities to host the event.

The Palace Casino has more than $3,000 \text{ m}^2$ of floor area split in wide, modern spaces suitable for conventions, exhibitions and conferences:

- one auditorium with 600 seats, with five data shows, three projection screens, microphones and soundboard;

- area for exhibition;
- area for poster exhibition, including poster displays;
- stand hall;
- five restrooms (two for men and three for women);
- electric generator to cover eventual power supply failure;
- room for simultaneous interpreters.

Figure 1 shows the outer facade (a) and an inside view of the Palace Casino (b).

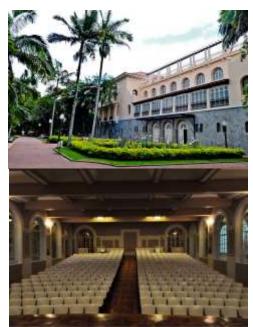




Figure 1: Outside (a) and inside (b) views of the of the Palace Casino in Poços de Caldas, where the XXVI ENTMME-2015 will take place.

1.2. About Poços de Caldas

Poços de Caldas features all the necessary qualities to promote such a great event. Its favorable location provides easy access from several state capitals and other cities, like São Paulo, Rio de Janeiro, Belo Horizonte and Campinas, among others. The city is located in the highlands of southern Minas Gerais, with a mild weather the whole year and beautiful landscapes. The existing





infrastructure, hotels, tourist attractions and culture will certainly be among the highlights for visitors, exhibitors and speakers.

Poços de Caldas is located in southwestern Minas Gerais state, very close to the border between the states of Minas Gerais and São Paulo. The city enjoys a strategic location thanks to the proximity to São Paulo (243Km), Belo Horizonte (460Km) and Rio de Janeiro (470Km), with access through several highways, and its integration into the circuit of thermal spas in both São Paulo (Serra Negra, Águas de Lindóia, Socorro, Monte Alegre do Sul and Águas da Prata) and Minas Gerais (Caldas, Pocinhos do Rio Verde, Cambuquira, Lambari, Caxambu and São Lourenço). Additionally, Poços de Caldas is near the most developed regions in the interior of São Paulo state, like Ribeirão Preto (175Km), Campinas (163Km) and São José dos Campos (315Km).

Three main roads give access to Poços de Caldas:

SP 342: coming from Adhemar Pereira de Barros (SP340) highway – connection to São Paulo through the region of Campinas.

BR 267: starts at Fernão Dias highway (BR381) – linking to the state capital Belo Horizonte.

BR 459: coming from Presidente Dutra highway (BR116) – linking to the region of São José dos Campos (SP) and Rio de Janeiro. The BR 459 highway, also known as the Technology Route, runs through a region that hosts a number of research centers and companies involved in technology development, including the cities of Poços de Caldas, Pouso Alegre, Santa Rita do Sapucaí, Itajubá and Lorena, among others.

1.3. Objectives

The XXVI ENTMME has the following objectives:

- disseminating knowledge and technology in the field of ore processing and extractive metallurgy;

- encouraging the exchange of knowledge and both theoretical and practical experiences among the participating professionals;

- promoting scientific exchange between students from different education levels (technical, graduation and post-graduation) and professionals from the ore processing and extractive metallurgy industry;

- enhancing the technical and scientific exchange among universities, research centers and the main players in the mineral industry;

- enabling the advertising, gathering and consolidation of research groups in the area of ore processing and extractive metallurgy in Minas Gerais and Brazil;

- advertising Poços de Caldas as an important Brazilian mining region and an international scientific research hub;

- publicizing the course of Mining Engineering offered by the Federal University of Alfenas' Advanced Campus of Poços de Caldas.

1.4. Grounds for promoting the event

Gathering together renowned Brazilian and foreign speakers and researchers favors the integration between the academy and the corporate world, on top of fostering the interest in research,





information sharing and discussion of operating practices. Therefore, the XXVI ENTMME is an excellent tool to bring together professionals and students in the mining and metallurgical areas with an aim to spread technological and scientific innovations across the industry.

1.5. The history of ENTMME

Since its first edition in 1973, the ENTMME has been the main technical and scientific event in the area of Mineral Processing and Extractive Metallurgy in Brazil. The table below shows some details of the previous editions of the Brazilian Meeting on Mineral Processing and Extractive Metallurgy.

Edition	Place Year Organizin		Organizing entity
1	Rio de Janeiro	1973	COPPE-UFRJ
2	Rio de Janeiro	1974	COPPE-UFRJ
3	Belo Horizonte	1975	UFMG/CETEC/VALE
4	São José dos Campos	1976	СТА
5	Salvador	1978	CBPM
6	Rio de Janeiro	1979	COPPE-UFRJ
7	Recife	1980	ABM
8	Porto Alegre	1981	UFRGS
9	Rio de Janeiro	1982	CAPES
10	Belo Horizonte	1984	CETEC
11	Natal	1985	CERN
12	Rio de Janeiro	1987	COPPE/UFRJ/FINEP
13	São Paulo	1988	ABM/EPUSP
14	Salvador	1990	ABM/UFBA
15	São Lourenço	1992	UFMG/ABTM
16	Rio de Janeiro	1995	COPPE/UFRJ / CETEM/PUC-Rio
17	Águas de São Pedro	1998	ABM/EPUSP
18	Rio de Janeiro	2001	COPPE/UFRJ / CETEM/PUC-Rio
19	Recife	2002	UFPE
20	Florianópolis	2004	UNESC
21	Natal	2005	UFRN/CEFET-RN
22	Ouro Preto	2007	UFOP
23	Gramado	2009	UFRGS
24	Salvador	2011	UFBA/IFBA
25	Goiânia	2013	UFG

Table 1 – History of Brazilian Meeting on Mineral Processing and Extractive Metallurgy





2. EVENT SCHEDULE

The most important dates in the XXVI ENTMME are the following:

- *Event*: October 18 – 22, 2015;

- Registration: October 18, 2015 from 16:00 to 18:00 at the event place;

- Opening session: October 18, 2015 at 18:00 in the auditorium of Palace Casino

- *Opening cocktail party:* October 18, 2015 at 20:30 at the entrance hall of Palace casino. Dress code: Business attire;

- Dinner: October 20, 2015 at 20:00 (place to be defined). Dress code: Business attire;

- ENTMME Assembly: October 21, 2015 at 16:00 in the auditorium of Palace Casino;

- Closing session: October 21, 2015 at 18:00 in the auditorium of Palace Casino;

- *Technical visits:* It will be organized technical visits to three mining companies in the region of Poços de Caldas, namely: Mineração Curimbaba, the Indústrias Nucleares Brasileiras' idle mine of Caldas (including a visit to the laboratories of Brazil's Nuclear Power Committee) and Alcoa. The visits will take place on October 22, 2015, with departure at 08:00 and return at 16:00 (place to be defined). Shuttle buses will take the visitors to the different sites and the corresponding cost shall be charged to the participants.

- *Technical contributions:* The following schedule shall apply for the submission of scientific papers for presentation and publication in the event's proceedings:

- *Submission of abstracts:* September 01, 2014 through December 15, 2014, directly through the event website (http://www.entmme.org);

- *Disclosure of the accepted abstracts:* February 01, 2015, by e-mail and through the event website (http://www.entmme.org);

- *Submission of the full paper:* Latest by March 01, 2015, through the event website (http://www.entmme.org);

- *Feedback to the authors about the papers:* Latest by April 15, 2015, by e-mail and through the event website (http://www.entmme.org);

- *Remittance of the final revised version of the papers:* Latest by May 15, 2015. The list of approved papers and the program of the XXVI ENTMME will be available at the event website (http://www.entmme.org).





2.1. Preliminary program

2.1.1. Plenary session (keynote speakers)

At least six plenary sessions involving renowned Brazilian and international guest speakers will be held during the XXVI ENTMME.

2.1.2. Subjects

The subjects to be dealt with during the XXVI ENTMME are:

- 1. Agglomeration and pelletizing
- 2. Sampling
- 3. Gem cutting
- 4. Ore and industrial rock processing
- 5. Decorative rock processing
- 6. Bio-hydrometallurgy
- 7. Characterization
- 8. Sorting
- 9. Comminution
- 10. Control and instrumentation
- 11. Mineral economy
- 12. Electrometallurgy
- 13. Bituminous sand and schist oil extraction
- 14. Flotation
- 15. Geometallurgy
- 16. Hydrometallurgy
- 17. Physical concentration methods
- 18. Modeling and simulation
- 19. Pyrometallurgy
- 20. Operational practice in extractive metallurgy and ore processing plants
- 21. Mineral processing plant designs
- 22. Solid-liquid segregation
- 23. Effluent treatment and recycling

2.1.3. Technical sessions

The technical sessions will have two different formats, namely: speeches and posters. The speeches will last twenty (20) minutes each, and the authors/speakers should strictly respect the time available for their presentation. A data show will be available in the room. Therefore, the presentations must be prepared on Microsoft's' PowerPoint or similar software; the operating system of the equipment is Microsoft Windows. The speeches will take place simultaneously in the four event rooms and they will be grouped by subject. Five out of the 20 minutes will be spared for discussions with the audience.

The posters will be displayed from 08:30 to 17:30 on the respective presentation date. The poster authors will be available to provide information from 16:00 to 16:30. The posters must be ready to





be displayed and provided with a support to be hung on the existing board hooks; alternatively they can be fastened to the board by means of adhesive, at the exhibitor's discretion. The poster dimensions shall be maximum 96 cm (horizontal) x 120 cm (vertical).

2.1.4. Course at the conference opening

As conference opening activities, at least two courses will be given by experts in the area.

3. PARTNERS

The mineral business became the supporting element of several economies across the world, and Brazil is one of the nations with the largest ore production. The XXVI Brazilian Meeting on Mineral Processing and Extractive Metallurgy (ENTMME) is a great opportunity for the participating companies, along with professionals and the technical and scientific community in the field of Mineral Technology and Extractive Metallurgy, to present and discuss the industry's experience in both Brazil and the world. Moreover, it will be an occasion to review the role played by the mining industry as far as the activity specialization and enhancement are concerned.

No matter whether you are an exhibitor or a sponsor, as a partner company you will consolidate your alliances and take active part in the technological innovations in the mineral processing and extractive metallurgy areas, in addition to being present in a setting that favors both local and international businesses. As a result, it will be the opportunity to exchange knowledge and expertise in the area of ore processing and extractive metallurgy.

3.1. Sponsors

Four different sponsorship categories will be available for the XXVI ENTMME:

- *Official sponsor*: There will be one official sponsor and the sponsorship contribution shall be R\$ 150,000.00. The benefits to the sponsor will be the prominent display of its logo in the event website (http://www.entmme.org), direct mails, marketing e-mails, posters, signs in the event venue, folders, badges, official program and the event proceedings. Moreover, the official sponsor will be entitled to twenty registrations for the event, insertion of advertising material in the bag distributed to the participants, banners in the various places where the event will take place, logo display in the projection screen between paper presentations, a 20-minute presentation during the opening ceremony, presentation of two papers in plenary sessions (plenary speakers) and three papers at the opening of technical sessions, one 25-m^2 stand at the entrance to the products fair parallel to the Meeting.

- **Diamond**: There will be four Diamond sponsors, and the contribution shall be R\$ 60,000.00 each. In this category, the benefits to the sponsors will be the display of their logo in the event website (http://www.entmme.org), direct mails, marketing e-mails, posters, signs in the event venue, folders, badges, official program and the event proceedings. A Diamond sponsor will be entitled to ten registrations for the event, insertion of advertising material in the folders distributed to the participants, banners in the various places where the event will take place, presentation of one paper in a plenary session (plenary speaker) and one paper at the opening of technical sessions, one 16-m²





stand at the products fair parallel to the Meeting.

- *Gold*: There will be four Gold sponsors, and the contribution shall be R\$ 42,000.00 each. In this category, the benefits to the sponsors will be the display of their logo in the event website (http://www.entmme.org), direct mails, marketing e-mails, posters, signs in the event venue, folders, official program and the event proceedings. A Gold sponsor will be entitled to six registrations for the event, insertion of advertising material in the folders distributed to the participants and one 12- m^2 stand at the products fair parallel to the Meeting.

- *Silver*: The contribution shall be R\$ 24,000.00 each. In this category, the benefits to the sponsors will be the display of their logo in the event website (http://www.entmme.org), direct mails, posters, signs in the event venue, official program and the event proceedings. A Silver sponsor will be entitled to three registrations for the event and one $8-m^2$ stand at the products fair parallel to the Meeting.

Table 2 summarizes the sponsorship levels and the respective benefits.

	Sponsorship level	Official	Diamond	Gold	Silver
	Stand (m ²)	25 in a prominent place	16	12	8
	Registrations	20	10	6	3
	Site	Highlighted	Х	Х	х
	Direct mail	Highlighted	Х	Х	х
ay	E-mail	Highlighted	X	х	-
Brand display	Posters	Highlighted	X	х	х
d di	Event signs	Highlighted	X	X	х
ran	Bag	Highlighted	X	X	-
В	Badge	Highlighted		-	-
	Program	Highlighted	X	X	х
	Proceedings	Highlighted	x	Х	х
	Brand displayed in the event banners	Highlighted	x	-	-
	Material added to the participants' folders	3 units	2 units	1 unit	_
	Logo displayed in the data show screen before the presentations	Х	-	-	-
	Presentation during the opening ceremony – 20 minutes	х	-	-	_
	Plenary speaker	2	1	-	-
	Opening lecture in a keynote session	3	1	-	-
	Number of quotas available	1	4	4	-
	Value (R\$)	150,000	60,000	42,000	24,000

Table 2 – Sponsorship levels and respective benefits





3.2. Support to the event

Both financial and institutional support for the event will be sought from several Brazilian entities linked to the mineral sector, among which the following must be highlighted:

- National and regional associations of Metallurgical and Mining Engineering (FAEMI, APEMI, ASSEMG, among others);

- Mineral Technology Center (CETEM);
- Federal Council of Engineering, Architecture and Agronomy (CONFEA);
- National Council for Scientific and Technological Development (CNPq);
- Regional Council of Engineering, Architecture and Agronomy (CREA);
- Brazilian Mining Association (IBRAM);
- Ministry of Science and Technology (MCT);
- Ministry of Mines and Energy (MME);
- Brazilian Metallurgy, Materials and Mining Association (ABM);
- Brazilian Aluminum Association (ABAL);
- Research Foundation of the State of Minas Gerais (Fapemig);
- Universities with courses in areas related to Mineral Processing and Extractive Metallurgy.

3.3. Exhibitors

An area of 320 square meters will be allocated to the erection of twenty exhibition stands. Such stands will range from 4 to 26 m^2 in area and the charges vary with the stand size. Each exhibitor will be entitled to four registration badges for access to all the event activities: Conference, fair and social activities. Please get in contact with the organizing committee for additional information about the stand charges.

4. COMMITTEES

4.1. Organizing Committee

The XXVI ENTMME will be organized by the Federal University of Alfenas, Poços de Caldas campus. The president and vice president of the organizing committee are Prof. Dr. Daniela Gomes Horta and Prof. Dr. Maurício Guimarães Bergerman, respectively. The full list of the organizing committee members is as follows:

Prof. Dr. Daniela Gomes Horta (president) – Unifal-MG Prof. Dr. Maurício Guimarães Bergerman (vice president) – Unifal-MG Prof. Dr. Ana Olívia Barufi Franco de Magalhães – Unifal-MG Prof. Dr. Carolina Del Roveri – Unifal-MG Prof. Dr. Fabiano Cabañas Navarro – Unifal-MG Prof. Dr. Renata Piacentini Rodriguez – Unifal-MG Prof. MSc Tiago Antônio Magalhães Filho – Unifal-MG





Prof. Dr. André Carlos Silva - UFG Prof. Dr. Arthur Pinto Chaves – USP Prof. Dr. Elenice Maria Schons Silva - UFG Prof. Dr. Homero Delboni Jr. Eng. Dr. Roberto Mattioli Silva – Tecplan Consultoria & Planejamento Eng. Dr. Vania Andrade - Consultant

4.2. Technical Committee

XXVI ENTMME technical committee shall be made up of researchers from universities and companies who will be invited for the technical and scientific value of their work and their contribution to previous editions of the Meeting.

All the universities that have a graduation course in mining and metallurgical engineering and companies with significant R&D investments will be invited to appoint their representatives in the technical committee. As a result, the organization expects to achieve widespread publicity of the event among universities, companies, graduation and post-graduation courses, and research groups in the field of ore processing and extractive metallurgy. The actual participantes of the technical committee is listed below:

Achilles Junqueira B. Dutra - UFRJ Adão Benvindo da Luz - CETEM Alaine Moreira Imbelloni - CDTN Ana Claudia Oueiroz Ladeira - CDTN André Carlos Silva – UFG Andreia Carolina Rosa - Samarco Antônio Eduardo Clark Peres - UFMG Arthur Pinto Chaves - USP Artur Ângelo de Alcântara Assis - UFPE Áureo Octavio D. Machado - UFPE Carlos Adolpho M. Baltar - UFPE Carlos Alberto Ikeda Oba - Multigeo Carlos Hoffmann Sampaio - UFRGS Célio Vitor Margues - Anglo American Denilson da Silva Costa - UFPA Denise Bevilaqua - Unesp-Araraquara Douglas Batista Mazzinghy - Anglo American Eduardo de A. Brocchi - PUC-RJ Elbert Valdiviezo Viera - UFCG Eliana Satiko Mano - USP Elves Matiolo - CETEM Elvira Gabriela Dias - Multigeo Ênio Leandro Machado - UNISC Ênio Leandro Machado - UNISC Fabio de São José - UFOP Flávia Dutra Mendes - AngloGold Ashanti





Francielle Câmara Nogueira - UFOP Gabriel Kamilo Pantoja Barrios - UFRJ George Eduardo S. Valadão - UFMG Getulio Gomes de Oliveira Junior - Kinross Henrique Kahn - USP Henrique Turrer - Anglo American Homero Delboni Junior - USP Irineu Antônio S. de Brum - UFRGS Ivo André H. Schneider - UFRGS Jader Martins - Hidroclean Jaime Henrique B. da Costa - UFPA James Varela - ThyssenKrupp João Alves Sampaio - CETEM João Bosco de A. Paulo - UFRN José Aurélio M. da Luz - UFOP José Yvan Pereira Leite - IFRN Juliana Araújo da Matta Machado Esper - Kinross Liliane Dolores Fagundes - Unifal-MG Luís Alberto D. Barbosa - IFBA Luis Claudio - UFMG Luis Cláuzio de Rennó Machado - Vale Luis Gonzaga S. Sobral - CETEM Luis Marcelo M. Tavares - UFRJ Luiz Rogério P. de A. Lima - UFBA Marcello Mariz da Veiga - UBC Marcello Rodrigues Cruz - Metso Marcos de Paiva Bueno - Ausenco Marisa Bezerra de M. Monte - CETEM Marisa Martins - ITV/Vale Maurício Leonardo Torem - PUC-RJ Michelly dos Santos Oliveira - CEFET Monica Speck Cassola - Clariant Odair Alves de Lima - AkzoNobel Paulo Fernando A. Braga - CETEM Pedro Luiz Guzzo - UFPE Rafael Teixeira Rodrigues - UFRGS Raquel Franco de Souza - UFRN Reginaldo Sabóia de Paiva - UFPA Roberto Galéry - UFMG Rodrigo Magalhães de Carvalho - UFRJ Rosa Malena F. Lima - UFOP Ruy A. Proenca - Multigeo Sandro Marino - Interfusão Silvio Bispo do Vale - UFPA Sylma Carvalho Maestreli - UNIFAL-MG Tiago César de Souza Pinto - ITV/Vale Versiani Albis Leão - UFOP Virgínia S. T. Ciminelli - UFMG





Vladmir Kronemberger Alves - Vale Wendel Johnson Rodrigues - Clariant

5. CONTACT DETAILS

For additional information about the XXVI Meeting on Mineral Processing and Extractive Metallurgy, please contact:

www.entmme.org

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