



AMGC News

Director General's Message



July is the starting of a financial year and we are starting with the routine capacity building services. The first training course was a Gemstone identification training provided for participants from the Geological Research Authority of Sudan (GRAS). The Director General was in Sudan during the month and made a courtesy visit to the GRAS headquarters to discuss with the officials on how GRAS to continue benefiting from AMGC services. The Centre was visited by a consultant on evaluation mission of projects run in AMGC and ICGLR with a support from the German Government.

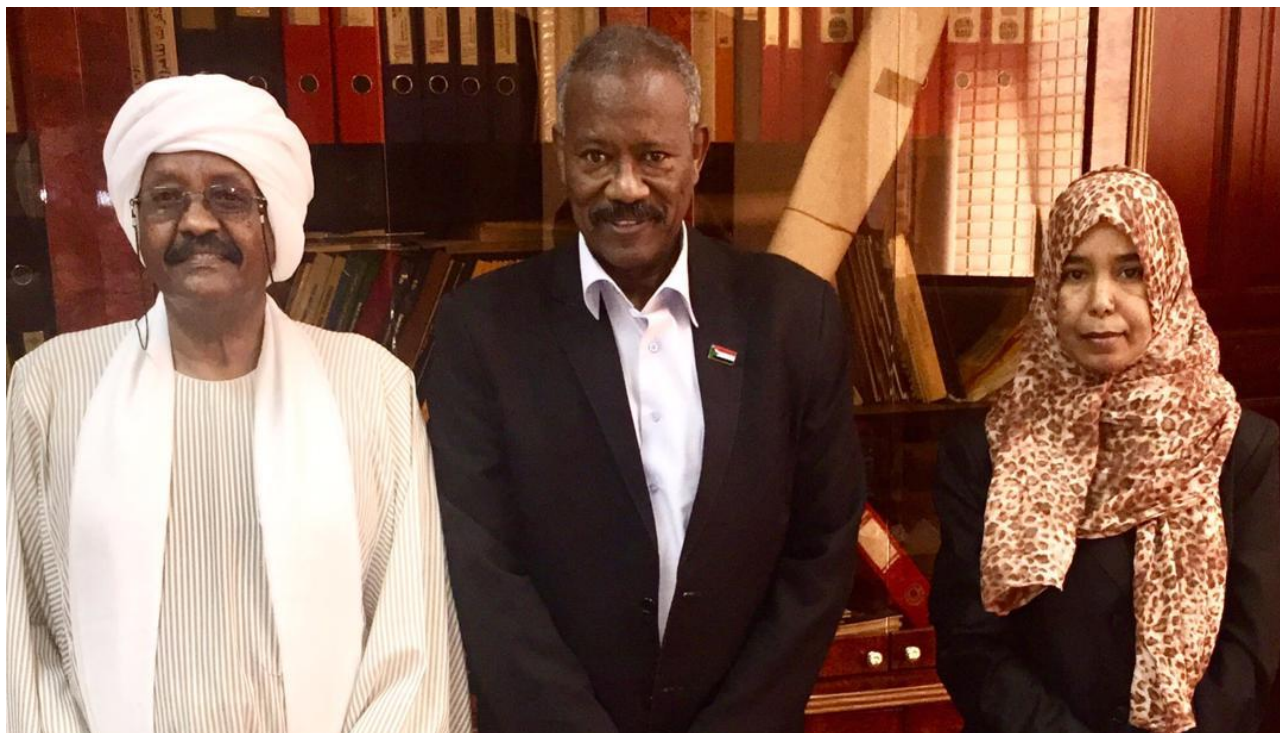
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Meeting with Acting Director General GRAS



AMGC Director General, Mr. Ibrahim Shaddad had a meeting with Mr. Jamal Alfath, the Acting Director General of the Geological Research Authority of the Sudan (GRAS) on 25th July 2019. The meeting was attended by Ms. Sawsan Ahmed, the Desk Officer of AMGC at the Ministry of Minerals, Sudan.

Training on Gemstone Identification Techniques and Evaluation



A two weeks training on Gemstone Identification Techniques and Evaluation for three participants Mr. Modathir Rajab Ahmed, Ms. Amna Abdalreem Mohamed and Sawsan Ahmed Mohammed from the Geological Research Authority of Sudan (GRAS).

The visit of the BGR consultant



Dr. Andre Ufer, an independent extractive industries advisor visited the Centre contracted by the German Ministry of International Cooperation (BMZ) and German Development Cooperation (GIZ) to conduct an assessment on sustainable mineral supply chains in the Great Lakes Region and the current AFP project supported by the German government.

AMGC Training Calendar for August to October 2019

Training Topics	Description	Tentative Schedule	Fee
Chemical and Environmental Services			
Analysis of Gold and Other Precious Metals	Various methods of analysing gold and other precious metals. Aspects of the Platinum Group Metals (PGMs).	19-30 Aug 2019	\$800
Environmental Technologies and Ecology	Technological solutions of environmental problems (water, air, soil and noise). <i>Environmental</i> quality assessment in industry, agriculture, mining and water for sustainability.	16-27 Sep 2019	\$800
Mineralogy, Petrology and Gemmology Services			
Gemstone Identification Techniques	Physical and optical properties of gemstones, Working principles of gemmological tools and equipment, Testing and identification of gemstones	12-16 Aug 2019	\$400
Gemstone Cabochon Making & Carving	Gemstone sorting, cabbng, and free form carving	19-23 Aug 2019	\$400
Gemstone Faceting	Gemstone sorting, faceting	23-27 Sep 2019	\$400
Gemstone Identification and Value Addition Techniques	Physical and optical properties of gemstones, Working principles of gemmological tools and equipment, Testing and identification of gemstones. Rough gemstone sorting and grading, different techniques for gemstone cutting (faceting, cabbng and free form carving), evaluation of cut stones	07-25 Oct 2019	\$1,200

Training Topics	Description	Tentative Schedule	Fee
Petrological Sample Preparation and Analytical Techniques	Thin section preparation, Polished section preparation, Petrographic examination	02-13 Sep 2019	\$800
Industrial Minerals Application Services			
Pottery for Beginners	Introduction to pottery and ceramics, Classification of pottery and ceramic products, Raw materials used, Identification of raw materials, Raw materials preparation and basic forming methods	13-24 Aug 2019	\$800
Mould Making	Material used for modelling and mould making, Preparation of plaster of Paris, Shrinkage calculations and drawings enlargement, Model making, Mother mould making, Case mould making	23 Sep - 04 Oct 2019	\$800
Forming Techniques	Hand building, Coiling, Slip casting-deflocculants, Solid and hollow casting, Thixotropy, Jigger & Jollying, Pressing, Throwing	15-26 Oct 2019	\$800
Mineral Processing and Small-scale Mining Services			
General Sampling Techniques and Sample Preparation for Laboratory Testing	Sampling, sample preparation and analysis of environmental and geological samples. It provides an understanding of the sampling theory, types of sampling and sampling protocols, involved analytical measurement, composition and classification; sampling quality control; and assays methods	12-23 Aug 2019	\$800
Issues and Formalization of the Artisanal and Small Scale Mining Activities	To provide ASM operators with technical, management and environmental knowledge for sound improvement of their activities. Particular emphasis is on importance of application of improved technics and use of geological data of deposits in environmentally friendly ways for sustainable ASM Activities. Impacts of ASM like mercury pollution, cyanide pollution, direct dumping of tailings and effluents into rivers, threats from improperly constructed tailings dams, river damage in alluvial areas, erosion damage and deforestation, and landscape destruction.	02-13 Sep 2019	\$800
Techniques of Gold Cyanidation for Small Scale Mining Operations	Detailed accounting of the usage of cyanide for extraction and recovery of gold, and of cyanide toxicity and chemistry. It covers cyanide leaching techniques and gold purification and recovery from solution methods.	23-27 Sep 2019	\$400
The Economics	Fundamental aspects of the evaluation of mineral	07-18 Oct 2019	\$800

Training Topics	Description	Tentative Schedule	Fee
and Evaluation of the Minerals Industry	investments from examining the mining stages with particular emphasis on cash flow models and project acceptance and rejection criteria. This course also examines the basic approaches and methods of developing evaluations for mineral projects and techniques for risk assessment.		
Metallurgical Balance and Process Control	The distribution of the various products of a concentrator, and the values contained in them. It provides a basis for decisions making about the mineral processing operations since the values of recovery and grade obtained from the accounting procedure are indications of process efficiency	28 Oct - 08 Nov 2019	\$800
Geo-information Services			
GIS and Remote Sensing for Mineral Exploration and Geological Mapping	Geological interpretation of satellite images, to enabling the participant to relate the geological structure and lithology with their geomorphological manifestation. Fundamentals of remote sensing including principles of electromagnetic radiation is needed. Various band combination, band ratios and enhancements techniques for visual interpretation and feature extraction by quantitative methods will be deployed to aid in lithology, structures and hydrothermal alteration zones delineation. The project work will use various types of remote sensing data products over different types of terrain, aims at providing high level of confidence to individual trainee to carry out their assignments in the elated fields in their respective countries.	26 Aug - 06 Sep 2019 28 Oct - 08 Nov 2019	\$800
Geophysical and Geochemical Data Processing and Interpretation	Geophysical and geochemical data types, data collection methods, data reduction and processing, interpretation of geophysical and geochemical maps, integration of geophysical and geochemical data with other data sets such as satellite images, geological maps and elevation models for interpretation.	19-30 Aug 2019 07-18 Oct 2019	\$800
Data Integration and Mineral Targeting	GIS-based spatial data processing, analysis, visualization, and decision-making. The course includes exercises and case studies with the view to develop skills in data capture, data integration, digital mapping, raster and vector geoprocessing, spatial analysis and modeling, and use of GIS as a data management and decision-making tool in earth science. Use of GIS in site suitability analysis and Mineral Prospectivity Mapping using Boolean, Index Overlay, and Fuzzy Logic overlays	09-20 Sep 2019	\$800
Geostatistics	Practical experience of using the statistical	30 Sep - 11 Oct	\$800

Training Topics	Description	Tentative Schedule	Fee
Application in Geology	environment and packages in R for exploratory analysis variogram estimation and modelling and optimal estimation of sample values at unsampled sites using kriging.	2019	
Mineral Exploration and Resource/Reserve Estimation	<p>Introduction to Exploration, Evaluation and Extraction (Mining) of mineral resources. Mineral Exploration Methods, reconnaissance survey, Geological Mapping, Geochemical survey and Geophysical survey. Data integration, analysis and interpretation of results for target areas identification.</p> <p>Resource/reserve estimation with data collection and handling, data quality, data handling and data validation, and data analysis and interpretation. Statistical methods of resource/reserve estimation, generate block model, block size selection, coding block model and block model parameters. Estimation concepts, estimations techniques, grade calculation and model validations.</p> <p>Mineral resource classifications and Reporting. Reporting code, sign off, external auditing and case study.</p>	05-16 Aug 2019 21 Oct-01 Nov 2019	\$1,500
Web mapping	Preparation of maps for presentation and display on internet. This include designing of web interface, coding and preparation of web maps, web mapping standards, and setting up of web and mapping servers. Different web mapping services: WMS, WFS, WCS using open source mapping applications.	23 Sep - 04 Oct 2019	\$800
Geoheritage sites of Tanzania	The importance of Geoheritage and its geoscience significance is discussed in this geo-tourism event which describes the different geohertitage sites and geoparks available in Tanzania: the highest peak of Africa (the Kilimanjaro Mountain), The world only carbonatite volcano (Oldonyo Lengai), The cradle of mankind (Olduvai Gorge), and others. The even includes visit to these and other sites with scientific and touristic interaction.	Duration and cost vary on the number of sites to be visited.	
Geo-safari – Geo-traverse across the Pan-African terrains: Tanzanian Craton, Greenstone belt, East African Rift Valley, the Kibaran and Mozambique belts.		Duration and cost vary according to the selected geo-safari type.	

Angola International Mining Conference & Exhibition, CIESM



The Government of Angola will be organizing the first Angola International Mining Conference & Exhibition, CIESM, taking place 20 - 21 November 2019 in Luanda, Republic of Angola. This will be *The future of Angola's Mining industry on Spotlight at CIESM*. While Angola is perhaps better known for its Oil and Gas sector, under President Lourenço, the Angolan Mining industry has been undergoing wide ranging reforms, including new regulations and policies, to make the sector more agile and competitive in the current economic climate. CIESM is being organized as one of the initiatives looking at what are the challenges in meeting the goals set for the industry, while at the same promoting the potential of the national mining sector to international investors. For more information visit: <https://ametradeltd.cmail20.com/t/t-l-bfhjiy-xaltlyk-x/>.

Tanzania Oil & Gas Congress



Following the huge success of 2018, the 3rd Tanzania Oil & Gas Congress will be returning 2 – 3 October at Julius Nyerere International Convention Centre - Dar Es Salaam, Tanzania with the full support of the Ministry of Energy, TPDC and all key government bodies. This year, the Congress will focus on exciting investment opportunities, strategies to boost industrialisation and new oil and gas projects in the region.

Nigeria Mining Week Preview in the First Mining DRC-Zambia



Nigeria Mining Week that returns to Abuja 14 – 16 October 2019. 1st Mining Drc-Zambia will do a preview on the Nigerian-Mining Week in its Sept/Oct edition to and discuss expectations. We will provide a platform for Companies to contribute editorially to this Special feature, as well as brand your company through advertising in a niche campaign, directed at making the Nigerian Mining sector aware of your products and Services at the upcoming event. For further information visit: <http://fmdrc-zambia.com/>.

East & Central Africa Mining Forum



Regional mining Exhibition & Conference taking place on 28-29 October 2019 in Kigali, RWANDA, at the Kigali Convention Centre. Hosted by RMB – Rwanda Mines, Petroleum & Gas Board, the government institution that leads, manages and regulates Rwanda's extractive sector, this regional business and investment platform will focus on mining Operations and Exploration projects the East & Central African region, positioning Rwanda as a modern hub for business, investment, trading and mineral processing. For more information visit: www.miningforumafrika.com.



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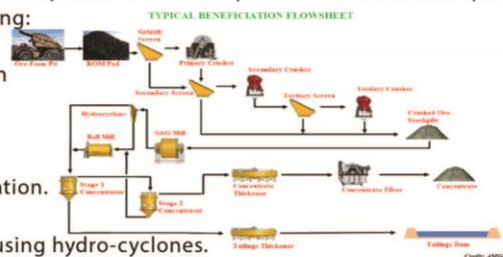


MINERAL PROCESSING & SMALL SCALE MINING SERVICES

The Mineral Processing Laboratory is equipped with a unique platform of laboratory and bench scale facilities for the development and testing of energy saving, low-cost crushing, grinding and concentration processes in environmental friendly ways.

Each aspect of beneficiation methods is optimized and incorporated into an overall process flow sheet development including:

- Ore crushing and grinding
- Bench scale gravity concentration
- Dense/heavy media separation
- Magnetic separation
- Froth flotation
- Dewatering or solid-liquid separation.
- Leaching (hydrometallurgy)
- Ore screening and classification using hydro-cyclones.



Training on different mineral techniques is provided. Laboratory facilities are used for practical demonstration during training. Currently the following courses offered:

1. Mineral Processing Basics – Beneficiation operations and Metallurgical Processes
2. General Sampling Technics and Sample Preparation for Laboratory Testing
3. Artisanal and Small Scale Mining Activities and Related Issues
4. Techniques of Gold Cyanidation for Small Scale Mining Operations
5. The Economics and Evaluation of the Minerals Industry
6. Metallurgical Balance and Process Control

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