

AMGC News

Director General's Message



The month of August's highlight is installation of a new XRF Model NEX CG EDXRF Analyzer from Rigaku through Wirsam Scientific & Precision Equipment (PTY) LTD in Johannesburg, South Africa to enhance analytical capacity of Chemical and Environmental Department of AMGC. A new training course on Leadership and Management was introduced in collaboration with UONGOZI Institute and the first course was carried out for participants from ARIAB Mining Company of Sudan. The Centre also received students from different Tanzanian universities and colleges for practical attachment. The Centre had received a distinguished Sudanese consultant geologist who was on working visit in Tanzania. The Centre received also a high level AUC/AMDC delegation.

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AMGC Top Performance Staff



In recognition for deeply appreciated work performance, behavior, commitment and dedicated service to the AMGC during the Financial Year July 2021/June 2022, the Management of the African Minerals and Geosciences Sciences (AMGC) awarded certificates and monthly allowance to the following staff:- Mr. Charles Buteta, frequent Ag. Director General/Quality Manager/Ag. Manager of Chemical and Environmental Department (CED), Mr. Mwinyimkuu Muhidin, the Laboratory Assistant in CED, Mr. Gwakisa John Mwaitete, Manager of Finance and Administration Department (FAD), Mr. Juma Ramadhani Njera, Driver in FAD, Eng. Alex Mkama, Manager of Mineral Processing and Small Scale Department (MPSD), Mr. Matokeo Gratian Simba, the Ag. Manager of Mineralogy, Petrology and Gemmology Department (PMGD) and Madam Naila Juma Mburu, the Laboratory Assistant in PMGD. Once again, the management thanks them all for doing a great job and wishes them the best.

AFRICAN MINERALS & GEOSCIENCES CENTRE (AMGC) ESTABLISHING COLLABORATION WITH POLICY STUDIES INSTITUTE (PSI), ETHIOPIA



The African Minerals and Geosciences Centre (AMGC) received an inquiry e-mail from Policy Studies Institute (PSI) in Ethiopia looking for a collaboration for public awareness on mineral service provision on various areas of the mining sector through having a MoU with the Centre.

PSI is an Ethiopian Government policy think tank established in 2018 by merging two state-owned think tanks, Ethiopian Development Research Institute (EDRI) and Policy Study and Research Center (PSRC), with a vision of being one of the top three think tanks with a similar mission of conducting policy studies and research in sub-Saharan Africa by 2032.

The mission of PSI is to conduct rigorous research and policy analysis that provide knowledge-based inputs to policy making and policy implementation, and disseminate its research outputs and findings to the policy and research community, academia, the development community and other stakeholders.

The PSI representatives and AMGC management has managed to hold a zoom meeting to deliberate on this inquiry on 3rd August 2022. The following areas have been agreed to be the focal points for the collaboration;

1. Joint research in mineral exploration
2. Grant finding
3. Research exchange (exchanging researchers/research visits)
4. Training for capacity building
5. Publication and dissemination of research outputs
6. Establishment of a database in the thematic areas
7. Promotion of services for public awareness
8. Analysis of research samples

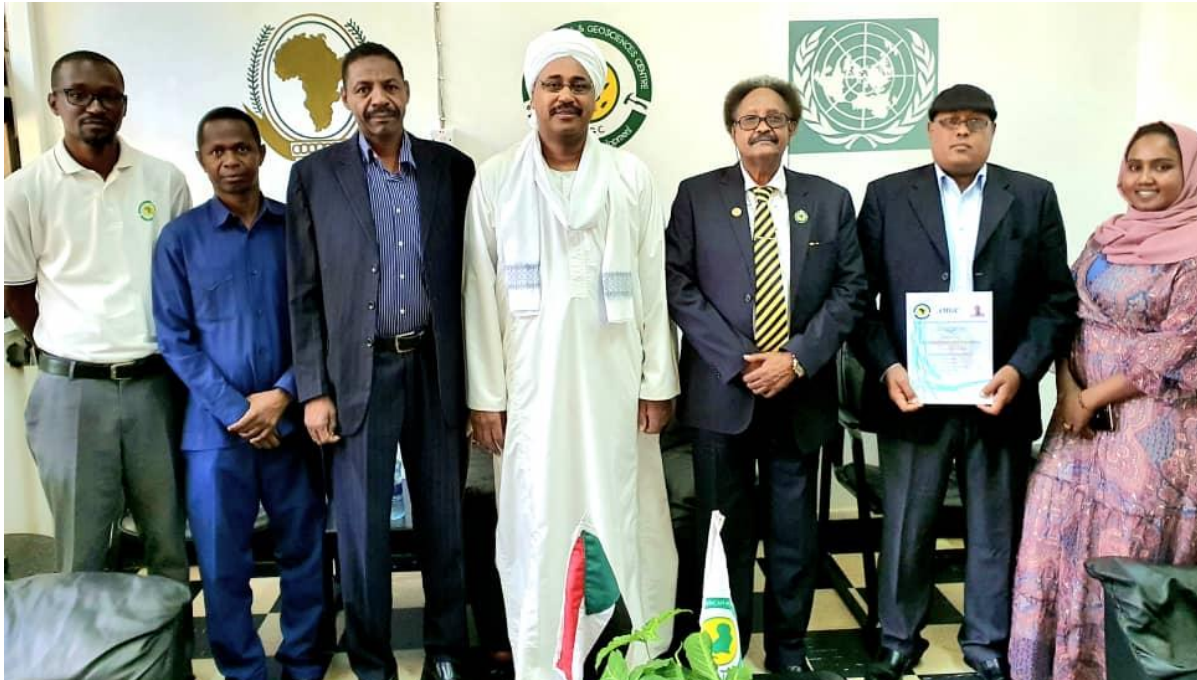
Finally, the meeting agreed to have a draft MoU prepared, circulated for review and be finalized for signing in a short time possible.

Arrival of New XRF Model NEX CG EDXRF Analyzer



In spite of prevailing financial constraints, the African Minerals and Geosciences Centre (AMGC) has managed to purchase a NEX CG EDXRF Analyzer COSTING \$ 94,000.00 from its own limited financial resources as part of enhancing the analytical infrastructures, boosting income generation and development of the Centre. It is worth mentioning that the Centre acquired an old S8-TIGER X-Ray Fluorescence (XRF) machine in 2012 which has frequently been faulty since 2017. The Centre had tendered to various suppliers to provide in quotes for a backup XRF machine so to compliment the S8-TIGER XRF whose maintenance might take a long time. The tendering and procurement process was won by Wirsam Scientific and Precision Equipment (Pty) Ltd. in Johannesburg, South Africa. The NEX CG EDXRF Analyzer has been received on 10th August 2022.

Training on Leadership and Management



Certificate ceremony of two senior administrative and financial staff from Ariab Mining Company Ltd. (A.M.C), in the Ministry of Minerals, Sudan, who attended the Centre's newly introduced training on Leadership and Management Training Course during 15th August to 26th August 2022. The trainees are: - Mr. Mohamed Mudawi Mohamed Ismail and Mr. Mohamed Tahir Oker Ibrahim. The ceremony was attended by the guest of honour who is H.E. Mr. Asm Mustafa, the Charge' d'affairs a.i. of the Sudan Embassy in Dar es Salaam, Tanzania. The course was conducted in collaboration with Dr. Emmanuel Luvanda (recommended Consultant by Uongozi Institute of Tanzania). Uongozi' means leadership in Kiswahili, and inspiring and strengthening leadership is the core purpose of the organization. It was established in 2010 by the Government of Tanzania.

New XRF Installation



On August 16, 2022 African Minerals and Geosciences Centre received Eng. Helmut Flinspach who is a Service Engineer from Wirsam Scientific & Precision Equipment in Johannesburg, South Africa. Eng. Helmut came to install a newly procured Rigaku NEX CG EDXRF and conducted a 4 days training to the staff in the Chemical and Environmental Department.

Congratulatory Messages



The Management of the African Minerals and Geosciences Centre (AMGC) has the honour to congratulate Eng. Naser Aldein El Hussein, for being appointed General Manager of the Ariab Mining Company Ltd. (AMC) of the Sudan. AMGC looks forward for AMC to continue maximizing its benefits from mineral services provided by the Centre particularly human capacity building service through on-job-training courses at the AMGC's premises in Dar es Salaam, Tanzania. AMGC recognising the timely payment of annual subscription by AMC on behalf of the Ministry of Minerals of Sudan to the Centre which enabled it to implement its activities to its highest peak.

Confirmation of Mr. Charles Buteta Athuman to the designation of a Manager



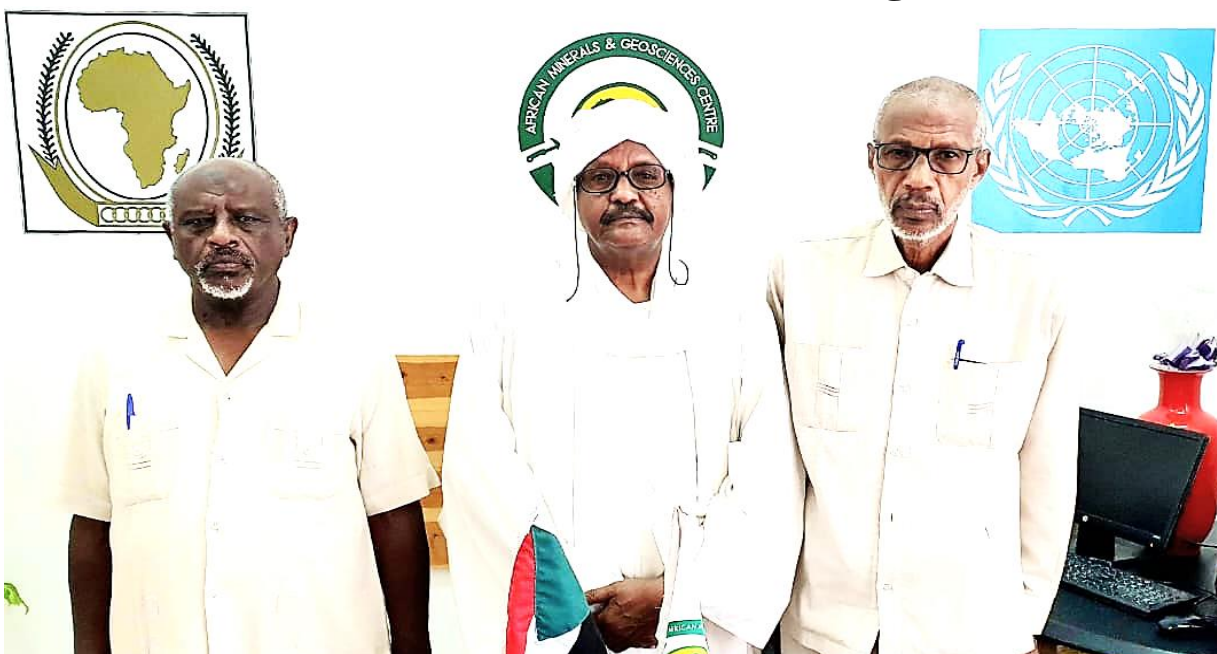
On August 25, 2022, the Management of the African Minerals and Geosciences Centre (AMGC) confirmed Mr. Charles Buteta Athuman, the Geochemist to the designation of a Manager of the Chemical and Environmental Department. Mr. Charles was officially assigned as an Acting Manager of the Chemical and Environmental Department on March 29, 2021. His performance and behaviour have been very significance and deeply appreciated for the betterment of the Centre. Despite of several challenges in shouldering multi-responsibilities such as a frequent Acting Director General and a Quality Manager, he has managed to generate income above the departmental target for two successful financial years; 2020/2021 and 2021/2022. His hardworking spirit, self-motivation, dedication and diligence are an inspiration for the other staff and the Management team of the Centre. Once again, the Management thanks him for doing a great job and wishes him the best in his new designation.

Clay Day Workshop



The African Minerals and Geoscience Centre (AMGC) received two children (Xander Majid, and Milly Majid) for clay day workshop. The clay day workshop is a special short training program conducted under Industrial Mineral Applications Department (IMAD) designed for women, men, children, schools and families that are interested in acquiring the basic know-how and skills in ceramics and pottery simple technology.

Visit of Sudanese Consultant Geologist



Dr. Al Sheikh Salih, the distinguished Sudanese consultant geologist is on a business visit to Tanzania to see the small scale gold mining at Mwanza Region as well as industrial deposits particularly graphite in Iringa Region. Dr. Al Sheikh is accompanied by Geologist Osama Al Amin and Mr. Ashraf Zuhair who is a Sudanese businessman intending to invest in the mining sector of Tanzania. Dr. Al Sheik paid a visit to the African Minerals and Geosciences Centre (AMGC) on 23rd August, 2022 seeking cooperation in preparation of feasibility studies for sites which will be selected as well as human capacity building for technical staff who will be involved in the near future mining activities.

Industrial Practical Training for University Students



The African Minerals and Geosciences Centre (AMGC) received the third group of 6 students from Dar es Salaam Institute of Technology (DIT) for Industrial Practical Training (IPT). This is a free of charge hands-on training so as to complement on the theoretical part taught at the University. The program will be conducted for 8 weeks from 22 August 2022 to 16 October 2022. The students are; Miss. Digna J. Sulle, BTech. Laboratory Science, Miss. Shani May, BTech. Laboratory Science, Miss. Highness R. Mlaki, BEng. Mining Engineering, Mr. Calvin Marco, BTech. Laboratory Science, Mr. Jeff Venance, BTech. Laboratory Science and Mr. Twalh Athumani, BTech. Laboratory Science.



AMGC received two students from Tumaini University Dar es Salaam College (TUDARCO) and Institute of Finance Management (IFM) for free of charge practical training so as to complement on the theoretical part taught at the University. The training program is conducted in Finance and Administration Department of AMGC for eight weeks from 01 August 2022 to 30 September 2022. The list of students is as below:-

1. Miss. Irene William Shana, Bachelor of Business Administration in Accounting (IFM)
2. Miss. Faudhia Abdul Mlawa, Bachelor of Science in Economics and Finance (TUDARCO).

Visit of delegation from the African Union Commission and United Nations Economic Commission for Africa



The African Minerals and Geosciences Centre (AMGC) has been honoured in receiving a delegation from both the African Union Commission (AUC) and United Nations Economic Commission for Africa (UNECA) in Addis Ababa, Ethiopia in the afternoon of 29th August, 2022. The delegation was comprised by the following officials:- Dr. Hussein Hassan, the representative of AUC in the AMGC's Policy Organs as well as the Head of Division for Industry, Innovation and Mineral Resources in AUC, and under his portfolio also the files of Small And Medium Enterprises (SME)s Standard and Quality as well as Oil and Gas, Dr. Marit Kitaw, the Interim Director of the African Minerals Development Centre (AMDC), which is currently based at the AUC headquarters in Addis Ababa, Ethiopia until the time the situation in Conakry, Guinea stabilizes and Dr. Alhaji Tunde Arisekola (FNMGS), the United Nations Development Programme, UNDP, the Senior Advisor on Geological and Mineral Information in AMDC. The distinguished delegates have paid a familiarization visit to AMGC, which is looking forward to a continued working relationship between the AUC and AMDC especially in the minerals community.



NEW Training Courses

African Minerals and Geosciences Centre (AMGC) is pleased to announce the introduction of four new courses Geostatistics, Petroleum Sciences and Resource Estimation in collaboration with Khartoum based Consulting firm called **Knowledge and Training Centre (KTC)**. The course shall be facilitated by the Director of KTC, Dr. M. Zayed Awad, an eminent specialist in the areas of Geostatistics, resource evaluation, stratigraphy, reporting, training and mentoring, risk and decision analysis, petroleum economics, project management. The training course will be organized in Dar es Salaam at the AMGC training facilities. The following training courses are going to be offered through this collaboration.

1. Fundamental of Petroleum Economics

Duration: One Week

Course fee: US\$ 1,200

This course introduces the participants to requirements for conducting petroleum economics; different stages of the petroleum industry life cycle involving upstream, mid-stream and downstream sectors will be explained. Participants will learn how to construct a Cash Flow Model for oil and gas investment decision. They will also learn how to deal with the different financial components of petroleum cost, and classification of costs into OPEX and CAPEX. Net Cash Flow Stream analysis and computation of economic indicators (Yardsticks) such as NPV, IRR, PBP, MCE and DPI, and their interpretations are essential for petroleum investment decision-making. Cash Flow Adjustment using discount rates is also considered. Types of fiscal regimes will be explained, participant will also learn how to incorporate the fiscal parameters into a cash flow stream.

2. Geostatistical Mineral Resource Estimation

Duration: One Week

Course fee: US\$ 1,700

The course will focus on the fundamentals of Geostatistical application in mining that are required for domain specification that are required for mineral resource estimation and will include hands-on training with Geostatistical software. Geostatistical conditional Simulations may be used to assess the uncertainty associated with the Reserves Evaluation at exploration,

feasibility, and production stages. The simulations provide a range of potential reserves for the ore body's Tonnage, Metal Quantity and Recovered Grade.

3. Introduction to Oil and Gas Industry

DURATION: One Week

Course fee: US\$ 1,200

This course is designed for a wide-ranging of petroleum industry personnel. It is designed to provide green-hands technical, and a non-technical personnel with practical petroleum industry life cycle. The course covers the key phases of the exploration, development and production industry as well as transportation and refining of crudes oils.

4. Geostatistics for Mining - foundation Course

Duration: Two Weeks

Course fee: US\$ 2,000

Geostatistics, in combination with other statistical methods, offers a wide range of mathematical tools that can be used to analyze, model, provide estimates and assess uncertainties, for different types of spatial phenomena, for example, grades or geological features. The course will focus on the fundamentals of Geostatistics and statistics and will include hands-on training with Geostatistical software.

THE INSTRUCTOR



Dr. M. Zayed Awad, the former Sudanese Minister for Oil and Gas (September 2014-May 2017) BSc (Hons) from University of Khartoum, Sudan, MSc (Geol) from Technical University of Berlin (TU), PhD (Stratigraphy) from Technical University of Berlin (TU). Dr. Zayed is a university instructor with postgraduate qualifications in petroleum geology, stratigraphy, economic geology, Geostatistics, and relevant application soft wares. He has more than 35 years' experience in university teaching and more than 25 years worldwide experience in

the petroleum industry and training. He has supervised many MSc and PhD research students and reviewed several reports and research papers. He is the founder of Knowledge & Training Center (KTC) in Sudan, and he is active as a trainer since 2003. He worked on many projects and given training courses to hundreds of attendees on many aspects of geology. Dr. Zayed's skills are in Geostatistics, resource evaluation, stratigraphy, reporting, training and mentoring, risk and decision analysis, petroleum economics, project management. Dr. Zayed was the initiator and editor-in-Chief of the book titled "Petroleum Geology and Resources of the Sudan" published by Geozone (Berlin) in 2015.

LIST OF TRAINING COURSES

Tanzanian government issued a new directive on restrictions with regards to the COVID-19. All travelers coming to Tanzania will not be required COVID 19 Free Certificate if they have a valid full vaccination certificate. If one is not vaccinated a COVID 19 Free Certificate with PCR Test and will be subjected to screening and possible additional test at the airport with Rapid Antigen Test. Below is the list of the training courses offered by AMGC.

Those who are interested to participate in the training courses at AMGC facilities are advised to consult the airline they plan to travel with about the current requirements of travel to Tanzania when planning the trip to Dar es Salaam.

Training Topics	Duration	Fee
Finance and Administration Department		
Leadership and Management Skills Training Course	2 Weeks	\$800
Financial Management Skills Training Course	2 Weeks	\$800
Executive Secretarial Training Course	2 Weeks	\$800
Chemical and Environmental Department		
Spectrometric Methods of Analysis.	2 Weeks	\$800
Analysis of Gold and Other Base Metals	2 Weeks	\$800
Quality Management Section		
Laboratory Certification and Accreditation	2 Weeks	\$1,500
Modern Laboratory Management Methods	2 Weeks	\$800
Quality Control and Quality Assurance in Laboratories	2 Weeks	\$1,500
Mineralogy, Petrology and Gemology Department		
Mineralogical and Petrological Sample Preparation and Analytical Techniques	2 Weeks	\$800
Gemstone Identification Techniques	1 Week	\$400
Gemstone Value Addition Techniques	2 Weeks	\$800
Usage of Benchtop X-ray Diffraction (XRD)	2 Weeks	\$800
Gemstone formation, mode of occurrences and mining methods	2 Weeks	\$800
Industrial Minerals Application Department		
Pottery for Beginners	2 Weeks	\$800
Mould Making	2 Weeks	\$800
Forming Techniques	2 Weeks	\$800
Decorations in Pottery and Ceramics	2 Weeks	\$800
Bricks & Tiles Manufacturing [Clays]	2 Weeks	\$800
Glaze Formulation	2 Weeks	\$800
Body Composition Formulation	2 Weeks	\$800

Mineral Processing and Small-scale Mining Department		
Practical Mineral Processing and The Basic Mineral Processing Flowsheet	2 Weeks	\$800
Sampling and Sample Preparation for Laboratory Testing	2 Week	\$800
Artisanal and Small Scale Mining Activities	2 Weeks	\$800
Techniques of Gold Cyanidation	1 Week	\$400
Mineral Economics	2 Weeks	\$800
Metallurgical Balance and Process Evaluation	2 Weeks	\$800
Extractive Metallurgy – Metallic Ore Deposits, Metal Extraction and Purification Processes	2 Weeks	\$800
Environmental Management in Mining	1 Week	\$400
Geo-information Department		
GIS and Remote Sensing for Mineral Exploration and Geological Mapping	2 weeks	\$800
Best Practices in Mineral Resource Estimation	1 week	\$400
Geodatabase Development for Web mapping	2 weeks	\$800
GIS and Remote Sensing Application for Assessment and Mitigation of Geohazards	1 week	\$400
Integrated Mineral Exploration Techniques	2 weeks	\$800
GIS and Remote Sensing for Hydrological Applications	1 week	\$400
Open-Source GIS	2 weeks	\$800
Fundamental of Petroleum Economics	1 week	\$1,200
Geostatistical Mineral Resource Estimation	1 week	\$1,700
Introduction to Oil and Gas Industry	1 week	\$1,200
Geostatistics for Mining - foundation	2 weeks	\$2,000
Geoheritage / Geoparks	On Request	
Geo-safari – Geo-traverse across the Pan-African terrains: Tanzanian Craton, Greenstone belt, East African Rift Valley, the Kibaran and Mozambique belts.	On Request	



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