MINERAL RESOURCES INSTITUTE DEPARTMENT OF MINING AND MINERAL PROCESSING ENGINEERING

SHORT COURSES ANNOUNCEMENT

The Mineral Resources Institute has experienced personnel in training, research and consultancy provision in geosciences works for more than three decades from its foundation date in 1982 operating under the auspice of government of Tanzania through the ministry of Energy and Minerals.

The department of Mining and Mineral Processing Engineering of Mineral Resources Institute (MRI) invites short courses applicants for Mineral Processing technics, mine regulations and Blasting from 18th January to 20th May, 2016. The courses schedule is as shown in the table below. All course will be conducted at Mineral Resource Institute and Geological Surveys of Tanzania (GST) laboratories.

TOPIC	LEARNING CONTENTS	TIMETABLE
A. Introduction to Mineral Processing (Metallurgy)	a) Ore mineralogy b) Mineral liberation c) Comminution and Classifications d) Screening and sieve analysis e) Mineral concentration methods f) Dewatering g) Conduct of mini project on sieve analysis (practical)	One Month
B. Metallurgical accounting	a) Type of sample b) Sample selection methods c) Gy formular d) Material balance e) Metallurgical report writing f) Material Inventory and its importance. g) Importance of Process plant budget and	2 weeks
	how to perform budget	

C. Sampling and Assaying	a) Sample Preparations b) Types of Samples c) Sampling technics d) Sampling errors e) Fire Assay f) Aqua regia g) Laboratory standards and importance of calibrations h) Conduct mean project the	2 Weeks
D. Environmental Health and Safety in Laboratory and Plant operations	a) Introduction b) Define terminologies (Health, safety, accidents/incident) c) Laboratory and plant equipment housekeeping d) General Laboratory and plant safety practice e) Handling chemicals in plant and laboratory f) Chemical spills, Hazard (Electrical Hazards and Safety Procedures, chemicals, equipment) g) Fire fighting h) Safety meeting i) Safety representative j) Health risk assessment and analysis k) Risk management l) Accident Investigation and Reporting	2 Weeks

E. Maintenance of Min and processing pl laboratory	a) Safe Work Operation In Plant And Laboratory b) Types of maintenance technics c) Work orders d) Inventory analysis e) Calibrations of some plant and laboratory equipment.	2 Weeks
F. Cement Production	a) Introduction b) Cement production process c) Raw materials d) Raw milling and blending e) Kiln operations f) Cement milling g) Quality control and cement standards h) Environmental and pollution control i) Combustion and heat transfer process j) Hydration of Portland cement	2 Weeks
G. Gold extraction	a) Introduction b) Gold mineralogy c) Gravity of Gold recovery d) Leaching techniques/methods e) Leaching system f) Adsorption techniques (CIP,CIL and CIC) g) Elution (Stripping) h) Gold Recovery i) Carbon Inventory j) Carbon regenerations process	2 Weeks
H. Froth Flotation	a) Introduction	2 Weeks

	b) Explain principles of froth flotation process c) Classify reagents used in flotation process for mineral concentration d) Explain operating principles of different flotation cells e) Operate plant flotation circuit f) Perform flotation test in laboratory level	
I. Basics of Mineral Economics and Finance	a) Roles of financing mining project Explain the risk associated with mining project b) Apply principles of managing mineral resources project principles of economic analysis in a mining project c) Principle of economic evaluation of a mineral resources project d) Principles of cash flow models and interest e) Discount cash flow in relation to mining project f) Practice economic evaluation and financial analysis of mining project g) Evaluate mining cost in mineral project development	3 Weeks

NOTE:

1. Upon successful completion of the course(s) , participants shall be evaluated and awarded with competence certificate
2. All payments should be done via CRDB Account Number **01J1082316900**, Account Name **Madini Institute - Dodoma** no cash payment shall be accepted.
3. The fee must be paid one week before starting date of the course
4. The amount of each topic is 900,000/=

5. Laboratory Analysis is 600,000/= per person
6. For more clarifications contact the followings:

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