Four-Week Specialized Training on Exploration of Critical Minerals (ECM/W1)

Training Institute for Mineral Exploration (TIME), with support from IIT Gandhinagar
03rd December 2026 to 30th December 2026
(One module at IIT Gandhinagar and three modules at Ambaji, Banaskantha District, Gujarat)

Day	Date	Venue	Programme	Major Topics / Activities	
Reporting Day	02-12-2026 (**Wednesday**)	IIT Gandhinagar	Reporting & Accommodation	Reporting at IIT Gandhinagar; hostel accommodation on payment basis	
Day 1	03-12-2026 (**Thursday**)	IIT Gandhinagar	Registration & Inauguration	Registration, inauguration and invited lectures	
Day 2	04-12-2026 (**Friday**)	IIT Gandhinagar	Central Instrumentation Facility–I	XRD & XRF: theory; XRD laboratory visit; SEM theory and practical	
Day 3	05-12-2026 (**Saturday**)	IIT Gandhinagar	Central Instrumentation Facility–II	X-ray CT: theory & practical; ICP-MS: theory & practical	
06-12-2026		SUNDAY			
Day 4	07-12-2026 (**Monday**)	IIT Gandhinagar	Drone Course–I	Drone acquisition, regulations, safety and field operations	
Day 5	08-12-2026 (**Tuesday**)	IIT Gandhinagar	Drone Course–II	Photogrammetric processing, data generation and interpretation	
Day 6	09-12-2026 (**Wednesday**)	IIT Gandhinagar	Fluid–Rock Interaction	Fluid flow and fluid–rock interaction with reference to critical minerals	
Day 7	10-12-2026 (**Thursday**)	IIT Gandhinagar	Mineral Processing	Fundamentals of mineral processing with reference to critical minerals	
Day 8	11-12-2026 (**Friday**)	IIT Gandhinagar → Copper Project, Ambaji	Transfer & Field Training Inauguration	Departure from IIT Gandhinagar at 9:00 AM; arrival at Copper Project Ambaji at 2:00 PM; hotel settlement on payment basis by the candidates; inauguration of field training at 5:00 PM	
Day 9	12-12-2026 (**Saturday**)	Copper Project, Ambaji	Field Work + Technical Lecture	**F/N**	**A/N**
				Field work	Critical & Strategic Mineral Exploration—challenges and scientific opportunities
13-12-2026		SUNDAY			
Day 10	14-12-2026 (**Monday**)	Copper Project, Ambaji	Field Work + Structural Geology	Field work	Structural data collection and elements of geological mapping with reference to CM & SM
Day 11	15-12-2026 (**Tuesday**)	Copper Project, Ambaji	Field Work + Data Interpretation	Field work	Plotting and interpretation of structural data; borehole planning and correlation studies
Day 12	16-12-2026 (**Wednesday**)	Copper Project, Ambaji	Field Work + Drilling	Field work	Structural studies in drill core; drilling techniques; borehole deviation; drilling operations demonstration
Day 13	17-12-2026 (**Thursday**)	Copper Project, Ambaji	Field Work + Geophysics	Field work	Geophysical surveys; multiparameter geophysical logging; data acquisition, interpretation using RSM, magnetometer etc for CM.

Gujarat Mineral Research and Industrial Consultancy Society
079-27913501 contact@gmrics.com www.gmrics.com | www.gmdcltd.com
4th Floor, GSFC Building, Drive In Road, Behind Reliance Superstore,
Gurukul-Bodakdev, Amedabad, 380054

Day 14	18-12-2026 (**Friday**)	Copper Project, Ambaji	Field Work + Remote Sensing	Field work	Remote sensing techniques in mineral exploration; drone applications and survey demonstration for CM & SM
Day 15	19-12-2026 (**Saturday**)	Copper Project, Ambaji	Field Work + Hyperspectral Remote Sensing	Field work	Hyperspectral remote sensing; spectral image processing and analysis; drone applications and survey demonstration for CM &SM
20-12-2026		SUNDAY			
Day 16	21-12-2026 (**Monday**)	Copper Project, Ambaji	Field Work + Core Logging	Field work	Core logging; core library visits and orientation study for CM & SM
Day 17	22-12-2026 (**Tuesday**)	Copper Project, Ambaji	Field Work + Surveying & CAD	Field work	Tacheometric survey and borehole profiling; hands-on AutoCAD , DataMine software.
Day 18	23-12-2026 (**Wednesday**)	Copper Project, Ambaji	Field Work + Sampling	Field work	Sampling, core marking and core-loss distribution; Sample processing for ore beneficiation; heavy-mineral separation; thin-section preparation
Day 19	24-12-2026 (**Thursday**)	Copper Project, Ambaji	Field Work + Ore Mineralogy	Field work	Cm & SM Ore minerals and textures in mineral exploration; petrographic and other analytical techniques
25-12-2026: (**Friday**)		CHRISTMAS - HOLIDAY			
Day 20	26-12-2026 (**Saturday**)	Copper Project, Ambaji	Field Work + Digital Geological Tools	Field work	DGPS, AutoCAD and Datamine utilization in Mineral Industry.
Day 21	27-12-2026 (**Sunday**)	Copper Project, Ambaji / Field Excursion	Regional Geological Traverse	Field work	Regional geological traverse and field excursion to Phulad Ophiolite/Abu Granitoid/Deri Copper Mine Area with reference to CM & SM as a emerging opportunities for research.
Day 22	28-12-2026 (**Monday**)	Copper Project, Ambaji	Field Work + Resource Evaluation	Field work	Analytical data evaluation; UNFC classification; reserve and resource estimation especially for CM & SM.
Day 23	29-12-2026 (**Tuesday**)	Copper Project, Ambaji	Field Work + Mining Geology	Field work	Geological criteria for mining; mineral economics; mining geology and resource evaluation especially for CM & SM.
Day 24	30-12-2026 (**Wednesday**)	Copper Project, Ambaji	Documentation	Exploration documentation and geological report preparation	Conclusion, Valedictory & Certificate distribution by invited dignitary from GMDC & IITGN (Group discussion, participant feedback, valedictory function and departure from Copper Project Ambaji after 6pm)

Abbreviations:
F/N – Forenoon | **A/N** – Afternoon | **CM & SM** – Critical Minerals & Strategic Minerals

General Note: Sundays and holidays will be observed as per the holiday list of the Government Participants will remain in the same working groups throughout the programme so that datasets, field observations, analytical results and samples generated during earlier modules can be carried forward into subsequent practical and interpretation sessions