

# GeoCon 2023 Our Natural Resources: Fueling the Energy Transition Journey

December 5-6, 2023

Monet Grand Ballroom, Novotel Manila, Araneta City, Quezon City

Scientific Program

**DAY 1: DECEMBER 5, 2023 (TUESDAY)**

0700	0820	REGISTRATION		
0820	0945	OPENING PROGRAM (Pambansang Awit/Prayer/Safety Briefing/Remarks)  Arturo Morado, Jr. Chair, GeoCon 2023 Organizing Committee  Joey Nelson Ayson, President, Geological Society of the Philippines  <b>KEYNOTE ADDRESS of Hon. Fernando S. Penarroyo</b>		

Moderators: Dr. Decibel Faustino-Eslava and Charlotte Vinarao

KEYNOTE	0945	1015	Fabio Schiavon	MoHo srl	Subsoil Imaging by Using Surface Waves in a Fast and Smart Way with Limitations
	<b>AM BREAK</b>				

KEYNOTE	1030	1100	Dr. Emmanuel G. Ramos	Tekton GeoMetrix Inc.	Extremes in tectonic deformation within the Philippine island arc system: • Thin-skinned tectonics in Luzon's Cordillera Mountains • Thick-skinned tectonics in Central Visayas
	1100	1130	Robert C. Shoup	Subsurface Consultants & Associates LLC	The Future of Energy - Meeting the Demand
	1130	1200	Dr. Mario Aurelio	UP-NIGS	Deep Seabed Minerals in the Philippine Blue Economy
	1200	1300	<b>POSTER PRESENTATIONS</b>		<b>&amp;</b>

**SCIENTIFIC SESSIONS**

Session No	ROOM 1	Session No	ROOM 2
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**1 A Shifting Planet**

**6 Deposit Control and Character**

Moderators: Dr. Lawrence Zamoras and Dr. Mylene Martinez-Villegas

Moderators: Stephanie Leido and Marlon Suelto

1.1	1300	1320	Dr. Kevin L. Garas	MGB	Migration of the Intertropical Convergence Zone (ITCZ) during Holocene revealed by multi-proxy climate data
	1.2	1320	1340	Jeffrey Munar	Marine Science Institute -UP Diliman

6.1	1300	1320	Karl D. Jabagat	National Chung Cheng University	Magmatic controls on the economic potential of porphyry Cu deposits (PCDs): Observations from the Taysan PCD, Southern Luzon Philippines.
	6.2	1320	1340	Akira Hara	Sumitomo Metal Mining Co., Ltd.

1.3	1340	1400	Jan Cedric G. Siracon	MGB-CO; UP-NIGS	Fluorescence Microscopy as a Tool in Porosity and Fabric Analysis of Limestone
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## 2 Data Analytics and Machine Learning Wonders

Moderators: Dr. Gabriel Theophilus Valera and Dr. Winchell Sevilla

2.1	1405	1425	Og S. Locaba	Philippine Space Agency	Investigating the Surface Displacements of Hydropower Dams in the Agno River Cascade Complex Using Satellite Remote Sensing
2.2	1425	1445	John Louie Figura	PHIVOLCS	Utilization of open source packages in developing and streamlining earthquake catalog processing
2.3	1445	1505	Winston Philip C. Pioquinto	Mapua University	A Machine Learning Approach In Prognosticating Geology and Possible Pay Zones Prior to Drilling

## 3 I, Rock

Moderators: Dr. Betchaida Payot and Dr. Maybelline Zepeda

3.1	1510	1530	Dr. Gabriel Theophilus V. Valera	UP-NIGS	Low P/T metamorphism in the west central Philippines arc-continent collision zone recorded in Calaton Hill, Tablas
3.2	1530	1550	Dr. Lawrence R. Zamoras	MGB IX	Review on Metamorphic Rocks being treated as Traditional Basement in Philippine Stratigraphy: Insights from the Metamorphic Rock Complex in the Zamboanga Peninsula, Philippines
3.3	1550	1610	Kenneth Jan F. Sangalang	UP-NIGS	Geochemical concentration of calcareous clastic units in western Pangasinan: Effects of calcite dilution on provenance, tectonic setting, and paleo-weathering signatures

## 4 New Ways of Searching and Measuring Resources

Moderators: Dr. Juan Miguel Guotana and Darwin Riguer

4.1	1615	1635	Dr. Mel Anthony A. Casulla	MGB	Unveiling Potential Cu-Au Mineralization Beneath Extensive Pyroclastic Deposits through a Comprehensive ER-IP Survey Approach
4.2	1635	1655	Kurt Linus Ljomir Z. Ursua	Lepanto Consolidated Mining Company	Area-Weighted Grade Application for Underground Selective Mining of Epithermal Gold Veins: Illustrations from Lepanto Mine's Teresa-Felicia

6.3	1340	1400	Dr. Jillian Aira S. Gabo-Ratio	UP-NIGS	Host rock alteration and ore-forming conditions of the Barlo volcanogenic massive sulfide deposit in Zambales
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## 7 Guide to the Riches Below

Moderators: Dr. Jillian Gabo-Ratio and Dr. Karlo Queano

7.1	1405	1425	Nathaniel Parcutela	Energy Development Corporation	Identifying alteration zones associated with blind porphyry prospects in Suyoc, Benguet, Philippines through integrated remote sensing and ground magnetic data
7.2	1425	1445	Ma. Yna Rose D. Garcia	UP-NIGS	Retrograde overprinting and magmatic fluid origin of the skarn Fe-Cu mineralization in the Masara Gold District
7.3	1445	1505	Darwin Edmund L. Riguer	Apex Mining Co., Inc.	Exploration-Target Generation of the Maco Copper-Gold Deposit

## 8 Measuring Earth's Riches

Moderators: Dr. Jenielyn Padrones and Leonardo Marcelo, Jr.

8.1	1510	1530	Isaac Norman D. Rivera	Apex Mining Co., Inc.	Using Unsupervised Machine Learning on Geochemical Data to define Mineral Resource Domains of a Porphyry Cu-Au Deposit
8.2	1530	1550	Glenn Charles F. Ancheta	Eramen Minerals, Inc.	Comparative Analysis of Various Resource Estimation Methods Applied on the Nickel Laterite Deposit of Block AB, Parcel 5-EMI MPSA, Sta. Cruz, Zambales
8.3	1550	1610	Ciceron A. Angeles Jr.	PMRCC	The Philippine Mineral Reporting Code (PMRC) Updates and Its Future for the Philippines

## 9 Working with the Community

Moderators: Ferdinand Jumawan and Leo Virtucio

9.1	1615	1635	Reynaldo Dela Rosa	Nickel Asia Corporation	Legal and Ethics Explainer: Social License to Operate
9.2	1635	1655	Nellie C. Ballola	Far Southeast Gold Resources Inc.	Social License to Operate from the Lenses of the Ground Workers

4.3	1655	1715	Marywil Krystal Cabahug	UP-NIGS	Application of Geographic Information System (GIS) and Logistic Regression Model to Map the Potential Areas of Groundwater Springs
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## 5 Earth Science for the Masses

Moderators: Gisella Gonzales and Christian Escarian

5.1	1720	1740	Dainty Clarice Rabang	Palawan Provincial Disaster Risk Reduction and Management Office	Anyong Lupa, Anyong Tubig: A Peek at the State of Earth Science Understanding in the Philippines
5.2	1740	1800	Dr. Ma. Mylene Martinez-Villegas	PHIVOLCS	Revisiting stories of eruptions: Understanding volcano experiences and narratives for disaster communication

## 10 A Dangerous World

Moderators: Dr. Noelynna Ramos and Josephine Aleta

10.1	1700	1720	Dr. John Dale B. Dianala	UP-NIGS	Multi-hazard source detection and analysis of earthquakes, subsidence, and slope instability: results from Leyte island and future directions
10.2	1720	1740	Jefferson J. Rapisura	UPLB	Disdrometer-based Kinetic Energy-Rainfall Intensity Relations in Southern Luzon, Philippines for Soil Erosion Studies
10.3	1740	1800	Sophia Therese L. Pamati-an	UP-NIGS	InSAR-detected ground movements in Saint Bernard, Southern Leyte, Philippines, in relation to the potential reactivation of the 2006 Guinsaigon landslide