Accepted Abstracts for the Rocscience International Conference 2023

Please submit your technical paper by **February 3, 2023**.

Abstract ID	Name	Topic
RIC2023-TP1	Mustafa Ahmed	
RIC2023-TP2	Farhad Jaffar Chishti	Evaluation of slope instability and rock fall hazard along Karakoram Highway, Hunza District, Gilgit-Baltistan, Pakistan
RIC2023-TP3	Jorge Alejandro Villarroel Ortega	
RIC2023-TP4	Joel Hirales-Rochin	Analysis of RQD-RMR-GSI geo-mechanical parameters of the lithology exposed in the portion NE-SE of the city of La Paz, B.C.S., Mexico
RIC2023-TP5	Fahmy Osman Mohammed	Evaluation and excavation of carbonate and heterogeneous flysch rocks for the dam foundation in the Zagros thrust zone: a case study at Kanarwe river basin, Kurdistan region, Iraq
RIC2023-TP6	Erick Rógenes	UCS simulation with a pseudo-discontinuum bonded block model
RIC2023-TP7	Erick Rógenes	Failure modelling of underground works under high field stress
RIC2023-TP8	Kenneth Redmond	Geogrid support to foundations in various engineering models
RIC2023-TP9	Debasis Barman	Tunnelling in challenging environments – case study on USNBRL (Katra, India) T-01 tunnel construction for the balance stretch
RIC2023-TP10	María Camila Olarte Garzón	Hydrmdynamic behavior of swelling clays
RIC2023-TP11	Dina Kon Mushid	Elastopalstic discretized virtual internal bond model and its application to dynamic fracture simulation in rock
RIC2023-TP12	Rama Vara Prasad Chavali	Back-analysis of shallow landslide at La Baie, Quebec
RIC2023-TP13	Ali Saeidi	Regional-scale landslide hazard analysis in sensitive clays using an integrated approach
RIC2023-TP14	Cissa Lopes Lanna	Applicability of three-dimensional stability analysison open pit mine slopes using a geotechnical block model
RIC2023-TP15	Igor Fomenko	3D probabilistic analysis of a rainfall-induced slope failure, a case study of the Mongsen landslide, Sapa, Vietnam
RIC2023-TP16	Yoginder Kumar Sharma	Analysis of the rock mechanics behind raveling formation of 91m x 70m x 45m cavity through crown of downstream surge gallery cavern of Punatsangchhu – II Hydroelectric Project, Bhutan
RIC2023-TP17	Tawfiq Boufrina	Landslide diagnosis and treatment on a high speed railway project – Algeria's case history
RIC2023-TP18	Abbas Kamalibandpey	Evaluation of the effect of geomechanical parameters and in situ stress on rock slope response using generalized Hoek-Brown criteria and equivalent Mohr-Coulomb

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RIC2023-TP19	Mark Anthony A. Banting	Performance of soft clay reinforced with grout pile: an experimental small scale study
RIC2023-TP21	Ahmed Hazim Abdulkareem	Numerical analysis of road embankment over soft foundation reinforced by geogrid
RIC2023-TP23	Amichai Mitelman	Utilizing the monte-carlo capability in RS2 for machine-learning applications
RIC2023-TP25	Ana Rivera	Design of primary support in road tunnels with RMR between 50 and 60 applying reliability design methods
RIC2023-TP26	Leonardo Alberto Sala	Methodology to construction of three-dimensional geotechnical model by implicit modelling and geostatistics
RIC2023-TP28	Ahmad Hakouk	Analyzing the geotechnical and seismic parameters (north-west Damascus) for defining the ideal position for cities development with regard to geohazards
RIC2023-TP29	Beverly Yang	Does rock engineering need to quantify GSI?
RIC2023-TP30	Fatemeh Amiri Ramsheh	Continuum-based Voronoi tessellated model calibration for capturing laboratory behaviour of undamaged Lac du Bonnet granite
RIC2023-TP31	Dr. Ajay Kumar Naithani	Analysis of slope failure: a case study from the pump house cut slope wall of lift irrigation scheme, Telangana State, India
RIC2023-TP32	Jacques Strydom	Utilising interferometric synthetic aperture radar and ground-based radar data to predict time to failure and to calibrate numerical models on an opencast coal mine
RIC2023-TP33	Farzaneh Hamediazad	3D stress analysis of hard rock pillars under compressive and shear loading conditions
RIC2023-TP34	Terence Ma	Searching for the 3D critical slip surface in an open pit mine using spline surfaces
RIC2023-TP35	Navid Bahrani	Continuum-based Voronoi tessellated models (VTM) for simulating brittle rock failure
RIC2023-TP36	Giancarlo P. Ventura	Investigation of geometric and smear parameters in the design of prefabricated vertical drains in Manila Bay
RIC2023-TP37	Zachary Yu Villacruz	Mechanical behavior of two-tiered bamboo reinforced mechanically stabilized earth retaining wall under dynamic load action of vehicles
RIC2023-TP38	Jlxeondyke Drie L. Ifurung	Failure mechanism and behavior of two-tiered bamboo reinforced mechanically stabilized earth retaining wall subjected to isolated footing load
RIC2023-TP39	Bing Li	Radar-informed automated back-analysis of rock fall hazards
RIC2023-TP40	Joseph Patrick Robles Cristobal	Dynamic response of bamboo-reinforced mechanically stabilized earth retaining walls under harmonic loading
RIC2023-TP41	Pooneh Shah Malekpoor	Random variability of input motion in stochastic slope stability analysis
RIC2023-TP42	Pankaj Punetha	Tunnel projects and risk management
RIC2023-TP43	Ong Yin Hoe	Discontinuity controlled analysis in rock slope using discrete fracture network (DFN) – a class B prediction
RIC2023-TP44	Didi R. Wenas	The wedge failure mechanism on slope stability radar monitoring

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RIC2023-TP46	Ian Williams	Analysis of cave system in weak sandstone using RS2
RIC2023-TP47	DS Subrahmanyam	Influence of Paleo and Neo stresses on underground construction sites
RIC2023-TP48	Shiella Tadzei Mudenge	Landslide disaster risk reduction through slope stabilization: a case study of KwaZulu Natal, South Africa
RIC2023-TP49	Mohd Ashraf Mohamad Ismail	Integration of CIELAB color space and image analysis for slope stability assessment on interbedded sandstone-shale
RIC2023-TP50	Michael Diez de Aux	RSPile analysis of two Osterberg cell load tests on post-grouted and conventionally installed caissons near Toronto
RIC2023-TP51	Amirhossein Medghalchi, Bing Q Li	Shear behavior of 3D printed stochastic rock discontinuities
RIC2023-TP52	Upol Barua Choin	An investigation on the physical and hydrological properties of barapukuria coal mine to assess water Inrush, Bangladesh
RIC2023-TP53	Mohd Mustaqim Mohd-Nordin	Anisotropic strength model for sandstone-shale sedimentary rock slope stability analysis
RIC2023-TP54	Nancy Anataba Kyorku Dzikunu-Bansah	Creating a system for storing, processing and presenting geotechnical information for Ghana
RIC2023-TP55	Yogendran Arunachellan	Placement of a temporary bridge across a mining scar on an opencast strip mine in South Africa using sound rock/soil mechanics practices
RIC2023-TP56	Yared Sholla	Using Rocscience software for ground improvement design with Geopier soil reinforcing elements to improve global stability and settlement controle
RIC2023-TP57	Roger Bissaya	Using Rockfall 3 to assess the potential of rockfall hazard on highly fractured rocky hills, Yaounde, Cameroon
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RIC2023-TP60	Farid Askarinejad	A new two-surface viscoplastic model accounting for soils or jointed rocks time-dependent behavior
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RIC2023-TP62	Sravan Kumar Gara	Slope stabilty analysis of ob dumps in opencast coal mining
RIC2023-TP63	Chelluboyina Pavan Chakravarthy	Study on effectiveness of vertical water curtain system for hydrogeological confinement of LPG cavern with horizontal joint
RIC2023-TP64	Arefeh Arabaninezhad	Evaluating expert selected set method for reliability analysis of urban deep excavation applying Monte Carlo simulation technique

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RIC2023-TP69	Amin Hekmatnejad	Spatial modeling of rock strength heterogeneity and anisotropy using Universal Discontinuity index (UDi)
RIC2023-TP70	Cahya Ahmad Gumilar	Rock mass characterisation and rockfall analysis for rock slope on Ende – Maumere KM 46, Flores Island, Indonesia
RIC2023-TP71	Ian Williams	Back analysis of failed heap leach pad on a valley slope with a basal geomembran
RIC2023-TP72	Hemant Jain	Parameters to predict ground displacements induced due to tunnelling in a heavy medium – analytical and numerical studies
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RIC2023-TP85	David Saiang	Back analysis of stope of failure using kinematic analysis
RIC2023-TP86	Amr Sallam	The use of hybrid P&H tensionless pier foundation to reduce the risk of potential landslide of wind turbines
RIC2023-TP87	Kiarash Farahmand	Selecting model input parameters for realistic simulation of the brittle spalling failure around tunnels excavated in laminated grounds

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RIC2023-TP89	Bijoy Halder	Back analysis of support force – a case study
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RIC2023-TP94	Joan Atieno Onyango	Slope geometry optimization in a coastal quarry considering ocean tides and groundwater drawdown scenarios in a karst-prone rock mass
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RIC2023-TP100	Carlos Chávez-Negrete	2013 landslide failure mechanism and back analysis of Tijuana-Ensenada Scenic Highway
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RIC2023-TP102	Furqan Hameed	Challenges during tunnelling through Muzaffarabad Fault Zone at Neelum Jehlum Hydropower Project Pakistan
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RIC2023-TP105	Phí Hồng Thịnh	The method of identifying the rock slope failures: a case study along National Highway No.6, section through Mai Chau District, Hoa Binh Province of Vietnam
RIC2023-TP106	William F Bawden	Geotechnical risk and risk mitigation in deep underground mines in hard, brittle rock
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RIC2023-TP108	Rakhshan Zulfiqar	Selection of metaheuristic approach to optimize prediction accuracy of pile friction capacity
RIC2023-TP109	Brigid Cami	The conversion of generalized anisotropic materials from 3dDto 2D in limit equilibrium
RIC2023-TP110	Ahmed Al-Mufty	Comparison of limit equilibrium method with finite element methods in design of a secant pile wall

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RIC2023-TP112	Ahmed Al-Mufty	Raster scan algorithms for zoning of soil media in two dimensional groundwater flow analysis
RIC2023-TP113	Ahmed Al-Mufty	Application of different commercial programs to group analysis for foundation piles of Incheon Tower
RIC2023-TP117	Sandin Phillipson	Assessment of pillar and interburden stability in ultra-close multiple-seam mining using finite element modeling
RIC2023-TP116	Heshmatollah Mansoori Boroujeni	Challenges encountered during a metro station construction in uncompact cohesionless soil – case study: Amadegah Station of Esfahan Urban Railway - Line 2
RIC2023-TP118	Dominic Oduro	Back analysis approach for slope stability assessment using 3d modelling: a case study at Block 5 Pit of AngloGold Ashanti Iduapriem Mine
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RIC2023-TP122	Gordon Sweby	Calibration of the depth of failure in underground tunnels by back-analysis of borehole camera observations
RIC2023-TP123	Alex Cuellar Díaz	Analysis of two foundation design alternatives in a residential building to define the best stress distribution according to the stability analysis of a slope adjacent to the project
RIC2023-TP124	Wensong Zhang	A discussion on recent advancement in 3D LE methodology and its impact on slope stability analysis for iron ore mining
RIC2023-TP125	Mohit Chahar	Analytical versus numerical analysis on forepole reinforcement applied in tunnel construction under complex conditions
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RIC2023-TP130	Michael Etezad	Three-dimensional effect on a large embankment constructed over a soft cohesive foundation subject to deep-seated failure – two-dimensional, three-dimensional limit equilibrium methods and finite element analysis comparison
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RIC2023-TP133	Mark Diederichs	Analysis of a crane foundation within a deep power cavern in burst-damaged ground

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RIC2023-TP137	Amanda	2D and 3D numerical modelling on trinocular cavern in soft rock
RIC2023-TP138 - Student Paper	Nicolás Ignacio Ramírez Zúñiga	Influence of geotechnical parameters and in-situ stresses on strainburst potential
RIC2023-TP139	Babak Khadivi	Characterizing the cracking process of various rock types under indirect tensile loading based on coupled advanced experimental and numerical techniques
RIC2023-TP140	Ankit Sharma	Abstract of technical paper on challenges faced in stability analysis of right bank slopes of Reoli Dugli Hydro Electric Project, India
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RIC2023-TP147	Lysandros Pantelidis	Shaft resistance capacity of axially loaded piles in cohesive-frictional soils under static or pseudo-static conditions based on ground parameters
RIC2023-TP148	Lysandros Pantelidis	
RIC2023-TP149	Andrés Felipe Puerta Mejía	Rockfall assessment of a mountainous road in Southern Peru: Comparison between 2D and 3D numeric analysis tools
RIC2023-TP150	Cristian Felipe González Arteaga	Comparative analysis on the quantification proposals of the Geological Strength Index Classification System to be used in Hoek and Brown failure criterion
RIC2023-TP151	Javier Vallejos	Numerical modeling of the seismic hazard associated to strain burst and fault-slip potential in seismically active mines
RIC2023-TP152	Camilo Morales	Pseudo-static slope stability analysis of downstream and upstream tailings sand dams considering both horizontal and vertical seismic coefficients
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RIC2023-TP154	Raphael Carmo	Soil nailing for slope stabilization: a case study
RIC2023-TP155	Dr. Ulf Koehler	

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RIC2023-TP158	Laldinpuia	Slope stability analysis for site excavation plan in Aizawl, Mizoram, Northeast India
RIC2023-TP159	Ghader Saadati	Interaction of tunneling and rock slope stability, case study St. Michael Rail ways tunnel (Wachau Bahn /Lower Austria)
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RIC2023-TP166	Amir M. Halabian	A new two-surface viscoplastic model accounting for soils time-dependent behavior
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RIC2023-TP169	Trevor Carter	Approaches for predicting breakback & stability longevity of mined pit slopes
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RIC2023-TP171	Scott Cylwik	A practical non-linear strength criterion for rock masses based on quantitative input parameters
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RIC2023-TP173	Pooneh Maghoul	Detection and attribution of climate non-stationarity in cold regions geotechnical design using artificial intelligence
RIC2023-TP174	Ana Teresa Silva de Carvalho	Probability analysis of tailings dam rupture based on results of CPTu and SPT tests
RIC2023-TP175	Sara Khoshnevisan	Developing SPT-CPT correlation models using hierarchical Bayesian approach
RIC2023-TP176	Carlos Rodriguez	Slope stability analysis using 2 and 3-dimensional methods of basal reinforced slopes located in Northern Virginia
RIC2023-TP177	Laith Sadik	Developing SPT-CPT correlation models using hierarchical Bayesian approach
RIC2023-TP178	Laura Vanessa Araque Lavalle	Life-cycle cost profiles selection for different superstructure bridge types

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RIC2023-TP182	Jorge Andrés Arriagada Triana	On the use of Dips and RocFall for the design of highly fractured igneous rocks on the Chilean Patagonia
RIC2023-TP183	Firda Aulya Nisa	Comparison between limit equilibrium method and finite element method for slope stability evaluation in open pit coal mine, Central Kalimantan
RIC2023-TP184	Rio Akmal Rizky Prasetio	A comparison of mine slope stability analysis using Hoek-Brown and Mohr-Coulomb failure criterion methods at open pit, Central Kalimantan
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RIC2023-TP188	Roman Sapachev	Stability and deformation of tailing from solid insoluble sediments of enriched ore
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RIC2023-TP196	Daniel Wai	Transient thermal analysis on the stability of degrading permafrost rock slopes
RIC2023-TP197	John Hadjigeorgiou	Rock reinforcement data for analysis and design
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RIC2023-TP199	Luis Gonzalez	A ground improvement case study using stone columns
RIC2023-TP200	Rajib Dey	2D and 3D FEM modeling of the initiation of progressive landslide

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RIC2023-TP201	David Alexander Freistaedter	Case study: traditional geologic field data gathering techniques versus point cloud data acquisition and reduction
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RIC2023-TP204	Reginald Hammah	Does 3D slope stability analysis always produce higher factors of safety than 2D?
RIC2023-TP205	Amir Arsalan Jameei	On the analysis of 2D seepage problem of fractured rock masses
RIC2023-TP206	Amir Arsalan Jameei	On the creep analysis of rock masses by using a visco-elastoplastic model
RIC2023-TP208	Himan Hojat Jalali	Finite element analysis of large diameter steel pipes under construction loads
RIC2023-TP209	Ana Luiza	Comparison between the different limit equilibrium method results, when modifying the number of slices and the maximum iterations
RIC2023-TP210	Gelu Madear	Support design for the Polihali diversion tunnels and portals, Lesotho Highlands Water Project Phase II
RIC2023-TP211	Hadi Fatehigelab	Use of carrageenan biopolymer as a novel environment-friendly stabilizer in soil improvement
RIC2023-TP212	Ghader Saadati	Future challenges in tunnel stability analysis using artificial intelligence and machine learning

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