

IAEG 2014 Abstract Acceptance

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to me

Dear Author,

thank you for your contribution to the XII IAEG Congress, Torino 2014.

Your abstract was titled:

NGAIZEL LANDSLIDE, AIZAWL, MIZORAM, INDIA : A CASE OF WEDGE FAILURE

I am glad to inform you that your abstract has been **ACCEPTED**, and contributed to the success of the Congress that has reached more than 1780 abstracts. We hope that you will continue your support to the Congress and submit the full paper by 30th September 2013. The manuscript number of pages may range between 4 and 6, including tables and figures. We inform you that the reviewers have warned us about the quality of the English language of your Abstract. Thus, we kindly suggest you a careful revision of the English language during the preparation of the full contribution. You will receive soon the official manuscript template, the link for the submission, as well as further guidelines for the preparation of your manuscript.

Looking forward to seeing you in Torino,

Best Regards,
Giorgio Lollino

Giorgio Lollino
Congress Chair
XII IAEG Congress - Torino 2014

Consiglio Nazionale delle Ricerche
Istituto di Ricerca per la Protezione Idrogeologica
Strada delle Cacce, 73
10135 - Torino - Italia
☎ +39 011/3977810 Fax: 39 011/3977821
✉ giorgio.lollino@irpi.cnr.it
✉ secretariat@iaeg2014.com (Scientific secretariat)
Web: www.iaeg2014.com www.iaeg.info

NGAIZEL LANDSLIDE, AIZAWL, MIZORAM, INDIA: A CASE OF WEDGE FAILURE

Verma, Rahul

Department of Geology, Pachhunga University College, Aizawl- 796001, Mizoram, India.

E-mail: vrahul24@gmail.com

ABSTRACT

The state of Mizoram is located in the extreme northeast India, sandwiched between Myanmar to its east and Bangladesh to its west. Coordinates of Mizoram are 21°56'N - 24°31'N latitudes and 92°16' E - 93°26' E longitudes. Aizawl (92°60' E longitude and 23°58' N Latitude) the capital of Mizoram, is located in the northern part of the state. The ridge and valley topography and altitude variation (800 m to 1188 m) is a prominent feature of the city as well as the state. Entire Mizoram is traversed by long N-S trending narrow anticlinal hills and synclinal valleys.

Mizoram is one of the most landslide prone zones of the country, by virtue of its location in one of the heaviest rainfall zones (average 250 cms/year), and prominent sedimentary lithology of Tertiary Era, mostly comprising sandstone and shale intercalations. The maximum disasters occur during monsoon and post monsoon period (May - September).

The present case study is an attempt to evaluate the causes of the "Ngaizel" landslide in Aizawl Township, Mizoram that occurred on 23rd May, 2011.

In the case of the "Ngaizel" landslide, the prime cause of failure has originated due to the geological set up of the area. The "Ngaizel" area is located on the Aizawl-Lunglei road. The massive sandstone and shale beds are steeply dipping towards the Aizawl- Lunglei road section that is part of National Highway-54.

Intersection of bedding planes and nearly sub vertical joint planes, has imparted a blocky nature to the rocks. In majority of the cases, these blocks are very huge and are mostly vertical or high dipping. Further, the dilation of asperities, has led to the "wedge Formation". Ultimately, after a few days of heavy rainfall, the landslide occurred due to "wedge failure".

Keywords

Wedge and tab formation; Retaining capacity; slippage, internal toppling, Slope stability