Virtual Reality (VR) and spatial information applications in the mining industry

Conference 2015

BACKGROUND
Virtual Reality (VR) is a continuously evolving technology where a user interacts with a three-dimensional computer-simulated environment, which the user perceives as comparable to real world objects and events. As computer hardware and software technology have improved, the ease with which interactive simulations can be developed and deployed has improved significantly and lower cost, high-quality development tools have become available. VR applications in education and training have become increasingly popular in the context of effective knowledge transfer. Although VR technology has improved significantly over the last few years, its potential advantages with specific reference to Safety Health and the Environment (SHE) and mine planning and design, are relatively unknown.

Mining technical information is three dimensional. Miners think in pictures of their holes in the ground. Recent advances in open standard spatial data formats have opened up new and highly visual opportunities for integrated information management. Routine reporting and analytical exercises create new levels of insight into mining issues and challenges.

The ability to integrate mining technical data irrespective of source (323 and counting) opens up the possibility of integration with commercial information, access to readily available analytical tools and therefore has consequences across the enterprise.

OBJECTIVES
The conference will have as its main objective to expose mine employees locally and abroad to the development and application of VR and spatial information management in their day to day work environment. This will be relevant to all levels of production management and multi-disciplinary planning personnel, including those involved with SHE and risk-related education and training, as well as mining education and training service providers. VR related technology available for mine planning and design and its potential integration with current mine design software packages will also form part of this conference.

The main reason for this conference is that VR and spatial information management related applications in the mining industry have never been presented in such a comprehensive way at an international forum. It is currently very topical and needs to be exploited.

WHO SHOULD ATTEND
The conference should be of interest to anyone working in or with the mining sector where VR and spatial information management initiatives could be applicable. It would be of particular relevance to individuals involved in mining education and training or mine planning and design, incorporating production and integrated mine planning related activities.

- Mine managers seeking innovative solutions for identified key activities on mines
- Equipment manufacturers using VR technology in their training (simulators)
- Mine SHE practitioners
- Mine planning and design practitioners
- Mining education and training service providers
- Potential users of VR related technology applications
- Digital scanning specialists
- Spatial information management practitioners

For further information contact: Conference Co-ordinator, Camielah Jardine SAIMM, P O Box 61127, Marshalltown 2107 Tel: (011) 834-1273/7 Fax: (011) 833-8156 or (011) 838-5923 E-mail: camielah@saimm.co.za Website: http://www.saimm.co.za

EXHIBITION/SPONSORSHIP
Sponsorship opportunities are available. Companies wishing to sponsor or exhibit should contact the Conference Co-ordinator.
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Conference 2015

University of Pretoria

15–17 JULY 2015

Call for Papers

THEMES

Papers/Presentations are invited on the following themes which are expected to be dealt with during the conference proceedings:

- VR Technology—briefly as an intro
- The future role of VR in mine health and safety related education and training
- Role of VR in Risk Management
- Hazard Awareness—mining specific VR
- Mine Design and optimisation VR models and the future
- Spatial Information management.

The conference is being organised by The Southern African Institute of Mining and Metallurgy and papers/presentations are invited for the conference.

Prospective authors are invited to submit titles and abstracts of their papers, in English. The abstracts should be no longer than 500 words and should be submitted to:

Camielah Jardine; e-mail: camielah@saimm.co.za
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Facsimile +27 11 838-5923 or
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CALL FOR PAPERS/PRESENTATIONS

20 March 2015 Submission of abstracts
27 March 2015 Acceptance of abstracts
30 April 2015 Submission of papers/presentations
15–17 July 2015 Conference

The Southern African Institute of Mining and Metallurgy

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P.O. Box 61127, Marshalltown, 2107, Tel: 27 11 834-1273/7

THE DETAILS OF THIS FORM CAN BE POSTED TO US, or E-MAILED to camielah@saimm.co.za or FAXED TO: 27 11 838-5923 / 833-8156

☐ I am interested in attending the Conference
☐ I intend to submit an abstract of the proposed paper entitled:

Title of paper: .................................................................

Personal Details: Name: ..................................................

Address: .................................................................

Tel: ........................................ Fax: ................................

E-mail: .................................................................