

ROCKtalk

A QUARTERLY NEWSLETTER WITH THE LATEST BUZZ AMONGST ROCK ENGINEERS

VOLUME 3, ISSUE 2

APRIL 2017

A GLOBAL
PRESENCE
FOR GROUND
SUPPORT
SOLUTIONS IN
SOUTHERN
AFRICA

ROCBOLT
TECHNOLOGIES

President's Corner



The end of a cycle

This year started off with a bang. On most of the mines, the DMR instructed that certified Rock Engineers should conduct extensive audits of all working places. This created a new role profile of a qualified Rock Engineer – “Auditor”. As a result, we had little time to do anything else. Unfortunately, our work does not only revolve around keeping the DMR happy. We also have to ensure that systems, strategies and other critical areas of our work requirements, which could impinge on the safety of mine workers, are upheld. As a result, we manage the various challenges and crises as well as drive other critical projects, irrespective of the time constraints. I have, however, come to realise that all crises are cyclic and that the end of one challenge will lead to the next.

In January, amid the chaos, I was working on a paper for AfriRock. Part of the research I was busy with had been relatively unexplored over the past 30 years. As with most of us, I wanted quick answers which could support some of my preliminary findings. However, the more I researched, the more I realised that I was opening a new can of worms. The paper was due and I was running out of time. I consulted with both Profs John Napier and Francois Malan in an attempt to get some guidance. There were, however, no quick answers. Their advice was to further explore this field of study. I again realised, with the support of the experienced and knowledgeable Profs, that in some instances, having no conclusive answer was an answer. This was in fact a sufficient conclusion to support some of the findings in my paper. I was therefore unnecessarily putting myself under pressure, chasing my own tail. These unanswered questions do in most cases lead to a new cycle of research which can be further explored. This is what drives us to discover solutions to many of the uncertainties in our field of study.

The feeling of accomplishment motivates us to attempt new challenges and reach our goals. Candidates who attempt the Rock Mechanics Certificate underestimate the difficulty and get frustrated attempting exam after exam. The journey in some instances appears never ending. However, once you receive the final pass, it makes it all worthwhile. For a mountain climber, it would be the feeling you get after days of climbing and eventually reach a summit. The preparation, effort and hard work are eventually rewarded and the feeling of accomplishment will remain with you forever. However, this only opens the door to the next chapter in your career or life. The next cycle begins.

At the end of June, my two-year SANIRE presidency will come to an end. It was a great journey and allowed me to drive some key strategies to ensure that we can transition many of the challenges we, as Rock Engineers, are currently experiencing. I work as part of a team selected from industry, and therefore I can hand over to the next president and be assured that the needs of our members and future of SANIRE will remain priorities.

Michael du Plessis

AfriRock 2017

ISRM International Symposium

'Rock Mechanics for Africa'

Dates: 02-07 October 2017

Venue: Cape Town Convention Centre, Cape Town, South Africa

The 2017 ISRM International Rock Mechanics Symposium is to be held in Cape Town. The conference theme is "Rock Mechanics for Africa".

Approximately 170 abstracts were received, covering a wide range of topics including slope stability, underground excavation stability, ground support, rock mechanics data, testing methods, instrumentation and monitoring, mine seismicity and rockbursts, and numerical modelling. Over 100 papers have been received and are in the refereeing process.

The Symposium is being organised by the Southern African Institute of Mining and Metallurgy (SAIMM) and the South African National Institute of Rock Engineering (SANIRE).

Prior to the conference, the ISRM Board, Council and Commission meetings will take place. Technical visits are being arranged for after the conference.

Nick Barton and John Cosgrove will present a workshop on "Empirical Methods, Rock Mechanics and Structural Geological Methods useful for Excavation in Jointed Fractured Media".

Rockbowl will be held during the conference for young members.

Keynote Speakers:

Luis Lamas

Dick Stacey

Nielen van der Merwe

Nick Barton

Sergio Fontoura

Paul Buddery

Confirmed Technical Visits:

SANIRE—Presidential Tour 2017—Johannesburg to Cape Town—Bus trip—4 days

Cape Town—Chapmans Peak—1 day

Phalaborwa—Palaboa Mine and the Kruger park—2 days

Johannesburg—Tau Tona—Deepest Mine in the world—1 day

South Africa – A Pre- and Post-Conference Destination

A holiday in South Africa has the potential to surpass all other holidays you have ever been on. The land is vast, with stunning vistas in every province, each teeming with wild animals, amazing plants, and fascinating locations. South Africa is a world in one country and offers the visitor a multitude of destinations. Cape Town, considered as one of the top 10 destination in the world, the Kruger Park, the Garden Route, and the pleasure resort of Sun City are only a few of the sought-after stops on any itinerary.

Chapman's Peak Drive



Suggested activities to partake in while visiting Cape Town

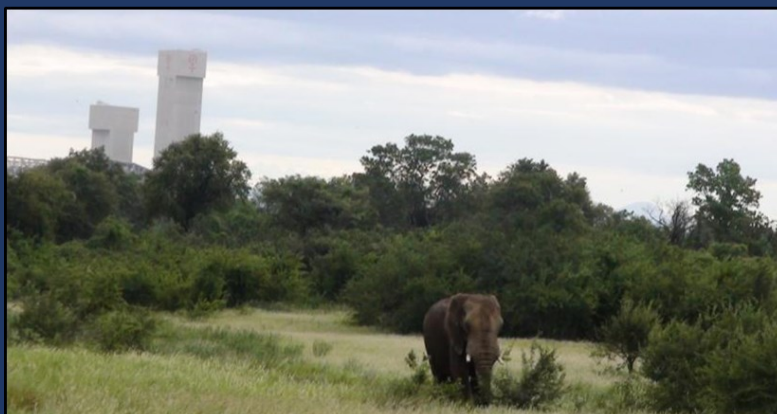
The Castle of Good Hope – the oldest building in South Africa – was once a fort, but today functions as a showcase of the Cape's early days. Built by Jan van Riebeeck and the Dutch East India Company, the castle, which is an example of a star fort, was completed in 1679. The building's 18th-century décor has been restored and it now functions as a popular museum.

Table Mountain Cableway—looming large and welcoming you to Cape Town, whether you are arriving by plane, train, boat, or automobile, is the iconic Table Mountain. Looking at it from below is one thing, but it is quite another to be atop the mountain, from where one is afforded such wonderful views of Cape Town, Robben Island, the Peninsula, and beyond.

Robben Island and Museum—Robben Island needs no introduction with regard to the significance of its place in South Africa's, and indeed the world's, history. As 'home' to one of the world's most famous prisoners, statesmen, and leaders in Nelson Mandela, Robben Island is quite possibly the most well-known island-prison on earth.

Wine Routes—less than an hour's drive from Cape Town's city centre, the wine routes offer visitors picturesque scenery, friendly hospitality, and excellent wines. Most estates have daily wine tasting, cellar tours, and sales – some by appointment only – and there are many choices when it comes to wine route tours. And because wine and food belong together, some of the world's best restaurants can be found in the Cape Winelands

Palabora Mine



Palabora Mine



Tau Tona – Deepest Gold Mine in the World



For more information about AfriRock 2017, please contact:

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Fax: (011) 833-8156 or (011) 838-5923

Email: camielah@saimm.co.za

ISRM NEWS

Recent developments

- Two nominations for ISRM President have been accepted at this stage.
- New National Group Macedonia approved
- The DRC and Zambia are in the process of establishing National Groups.

Online lectures

A new ISRM Online Lecture is available for viewing or downloading on the ISRM website (www.isrm.net): 17th ISRM Online lecture: Prof. Charles Fairhurst – “Why Rock Mechanics and Rock Engineering”

ISRM Conferences

The following ISRM Conferences are scheduled:

Event title	Start date	End date	Country	City
YSRM 2017 - the 4th ISRM Young Scholars' Symposium on Rock Mechanics and NDRM 2017 - the 5th International Symposium on New Development in Rock Engineering - an ISRM Specialised Conference	2017-05-10	2017-05-13	Korea	Jeju
Progressive Failure and Long Term Strength Degradation of Brittle Rocks - an ISRM Specialised Conference	2017-06-05	2017-06-09	Switzerland	Ascona
EUROCK 2017 - the ISRM European Rock Mechanics Symposium	2017-06-20	2017-06-22	Czech Rep.	Ostrava
GeoProc 2017 - 6th International Conference on Coupled THMC Processes in Geosystems - an ISRM Specialised Conference	2017-07-05	2017-07-07	France	Paris
AfriRock 2017 – the 2017 ISRM International Symposium	2017-10-02	2017-10-07	South Africa	Cape Town
Shaoxing International Forum on Rock Mechanics and Engineering Geology - an ISRM Specialised Conference	2017-10-27	2017-10-28	China	Shaoxing
EUROCK 2018 - the ISRM European Rock Mechanics Symposium	2018-05-22	2018-05-26	Russia	Saint Petersburg
RockDyn-3 - 3rd International Conference on Rock Dynamics and Applications - an ISRM Specialised Conference	2018-06-26	2018-06-27	Norway	Trondheim
ARMS10 - the ISRM 10th Asian Rock Mechanics Symposium	2018-10-29	2018-11-03	Singapore	Singapore
ISRM 14th International Congress on Rock Mechanics	2019-09-20	2019-09-27	Brazil	Foz do Iguaçu



ISRM International Symposium 'Rock Mechanics for Africa'

2-7 October 2017

Cape Town Convention Centre, Cape Town



Keynote Speakers

Nick Barton
Sergio Fontoura
Luis Lamas
Dick Stacey
Nielen van der Merwe

BACKGROUND

The 2017 ISRM International Rock Mechanics Symposium is to be held in Cape Town. The conference theme is 'Rock Mechanics for Africa'. Mining has traditionally been a mainstay of African economies, while Oil and Gas industries are rapidly growing throughout Africa. Infrastructure is being developed to support these industries. Rock engineering design is and therefore will continue to be essential for the growth of the continent. Prior to the conference, the ISRM Board, Council and Commission meetings will take place. Technical visits are being arranged for after the conference.

EXHIBITION/SPONSORSHIP

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

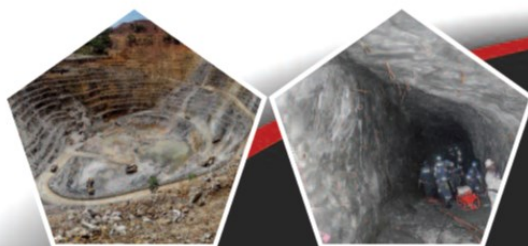
WHO SHOULD ATTEND

- Rock engineering practitioners
- Researchers
- Academics
- Mining engineers
- Civil engineers
- Petroleum engineers
- Engineering geologists.

TECHNICAL VISITS

The following technical visits are confirmed for the conference:

- Phalaborwa Mine
- Tau Tona Mine



TENTATIVE PROGRAMME

Saturday 1/10/2017	Sunday 2/10/2017	Monday 3/10/2017	Tuesday 4/10/2017	Wednesday 5/10/2017	Thursday 6/10/2017	Friday 7/10/2017
ISRM Board Meeting	ISRM Board Meeting	ISRM Commission Meetings Workshop	Technical Session Morning Refreshments Technical Session Lunch Technical Session Afternoon Refreshments Technical Session			Technical Visits
	Board Dinner	Network Function		Conference Dinner		

For further information contact:

Raymond van der Berg, Head of Conferencing
SAIMM, P O Box 61127, Marshalltown 2107
Tel: +27 (0) 11 834-1273/7 · E-mail: raymond@saimm.co.za
Website: <http://www.saimm.co.za>



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First Announcement and Call for Papers



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'Rock Mechanics for Africa'

2–7 October 2017

SPONSORSHIP AND EXHIBITOR PACKAGES

**Only 1
Opportunity Left**

Package 1: (P1) Premium Sponsorship (Limited to 4 Sponsors only) <u>Extensive branding benefits</u> • 10 Minute Sponsorship Presentation during Conference • Website Branding – Logo to appear on conference website • Logo slide between sessions • Logo on all print media advertising done to promote the event <u>Conference benefits</u> • 2 x Complimentary delegate tickets for the conference will be made available to your company's staff or corporate guests • 1 x Complimentary delegate tickets to attend Exhibition only • An A4 Insert (your corporate brochure, promotional material, etc) into all conference delegate bags <u>Exhibition benefits</u> • 3 x 3m² of expo space in a prime position (includes basic shell scheme) <u>Signage benefits</u> • 1 free standing banner (2m x 1m) in the conference registration area (banner supplied by sponsor) Sponsorship investment: R 60 000.00 Excluding VAT (R30 000.00 deposit)	Package 2: (P2) Exhibition Sponsorship (Unlimited Sponsorship) <u>Extensive branding benefits</u> • Website Branding – Logo to appear on conference website • Logo to appear on slide between sessions • Logo to appear on all print media advertising done to promote the event <u>Conference benefits</u> • 1 x Complimentary delegate tickets for the conference will be made available to your company's staff or corporate guests • 1 x Complimentary delegate tickets to attend the Exhibition only • An A4 Insert (your corporate brochure, promotional material, etc) into all conference delegate bags <u>Exhibition benefits</u> • 3 x 2m² of expo space in a prime position (includes basic shell scheme) <u>Signage benefits</u> • 1 free standing banner (2m x 1m) in the conference registration area (banner supplied by sponsor) Sponsorship investment: R 45 000.00 Excluding VAT (R25 000.00 deposit)
Package 3: (P3) Banner Sponsorship (Unlimited Sponsorship) <u>Extensive branding benefits</u> • Website branding – Logo to appear on conference website • Logo to appear on all print media advertising done to promote the event • Logo to appear on slide between sessions <u>Conference benefits</u> • 1 x Complimentary delegate tickets for the conference will be made available to your company's staff or corporate guests • An A4 Insert (your corporate brochure, promotional material, etc) into all conference delegate bags <u>Signage benefits</u> • Company to brand function with 2 free standing banners (2m x 1m) in the conference registration area (banner supplied by sponsor) Sponsorship investment: R 35 000.00 Excluding VAT (R17 000.00 deposit)	Package 4: (P4) Conference Bags (Limited to 1 sponsor) <u>Extensive branding benefits</u> • Logo to appear on all print media advertising done to promote the event • Logo to appear on slide between sessions • Logo to appear on all Conference Bags (Provided by SAIMM). The name of the conference and the SAIMM will also appear on the bag in a secondary position. • Website Branding – Logo to appear on conference website <u>Conference benefits</u> • An A4 Insert (your corporate brochure, promotional material, etc) into all conference delegate bags Sponsorship investment: R 30 000.00 Excluding VAT (R15 000.00 deposit)



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'Rock Mechanics for Africa'
2–7 October 2017
SPONSORSHIP AND EXHIBITOR PACKAGES

Package 5: Cocktail Function (P5) (Limited to 2 Sponsors) <u>Extensive branding benefits</u> • 10-minute presentation done by representative of the company • Website branding – Logo to appear on conference website • Logo to appear on all print media advertising done to promote the event • Logo to appear on slide between sessions <u>Conference benefits</u> • Company to brand entire Cocktail function • 2 x Complimentary delegate tickets to Cocktail Function <u>Signage benefits</u> • Company to brand entire Cocktail function Sponsorship investment: R 35 000.00 Excluding VAT (R17 000.00 deposit)	Package 6: Lanyards (P6) (Limited to 1 Sponsor) <u>Extensive branding benefits</u> • Logo to appear on all print media advertising done to promote the event • Logo to appear on the Lanyards (To be supplied by the Sponsor) • Logo to appear on slide between sessions • Website Branding – Logo to appear on conference website <u>Conference benefits</u> • An A4 Insert (your corporate brochure, promotional material, etc) into all conference delegate bags Sponsorship investment: R 15 000.00 Excluding VAT (R7 000.00 deposit)
Package 7: Pens & Pads (P7) (Limited to 2 Sponsors) <u>Extensive branding benefits</u> • Logo to appear on all print media advertising done to promote the event • Logo to appear on the event web page • Logo to appear on slide between sessions • Logo to appear on the pens and pads that will go into the Conference delegate bags (To be Supplied by the Sponsor) Sponsorship investment: R 15 000.00 Excluding VAT (R7 500.00 deposit)	Package 8: Technical Visit (P8) (Limited to 2 Sponsors) <u>Extensive branding benefits</u> • Logo to appear on all print media advertising done to promote the event • Logo to appear on the event web page • Logo to appear on slide between sessions • Logo to appear on the pens and pads that will go into the Conference delegate bags (To be Supplied by the Sponsor) <u>Signage benefits</u> • Company to brand function with 2 free standing banners (2m x 1m) in the Reception area (banner supplied by sponsor) Sponsorship investment: R 15 000.00 Excluding VAT (R7 000.00 deposit)
Package 9: Advertising (P9) <u>Conference benefits</u> • An A4 Insert (your corporate brochure, promotional material, etc.) into all conference delegate bags Sponsorship investment: R 5 000.00 Excluding VAT (R2 500.00 deposit)	



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'Rock Mechanics for Africa'
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ACCEPTANCE FORM (to be completed and returned to the SAIMM)

NOTES

- All prices include VAT
- Please complete and return the reply form to the address listed below as soon as possible
- Please ensure advertising material is submitted timeously

Preference:

P1 ☐

P2 ☐

P3 ☐

P4 ☐

P5 ☐

P6 ☐

P7 ☐

P8 ☐

P9 ☐

50% deposit is required upon acceptance

Company Name:

Postal Address:

Contact Person:

Position: Signed:

Tel : Fax :

E-mail: Cell:

**** FREE Delegates: Kindly complete the conference registration form and return to the conference organise**

Exhibition Staff Information: (Complete if applicable to sponsorship opportunity)

Exhibition Staff 1:

First Name: Last Name:

Position:

Tel : Fax :

E-mail: Cell:

Exhibition Staff 2:

First Name: Last Name:

Position:

Tel : Fax :

E-mail : Cell:

PERSONALITY OF THE QUARTER



Full Name: Sandor Zoltan Pethö

Position: Manager Rock Engineering

Company/Organisations: Glencore Coal South Africa / SANIRE, ISRM, SAIMM

Date and Place of Birth: 21st of February 1968, in Johannesburg

Education: Matriculated from Parktown Boys High School in Johannesburg; obtained my MEng (Rock Engineering) from the University of the Witwatersrand.

First Job: Junior Seismologist at SOEKOR (now known as Petrosa).

Personal Best Achievement/s: Involved with the South Deep pre-shaft pillar extraction from the design and implementation stage, and also the South Deep backfill plant upgrade.

Philosophy of Life: Do unto others as you would have them do unto you.

Favourite Food/Drink: A rare steak and a superior bottle of Cabernet Sauvignon or Pinotage (Platter 5*).

Favourite Sport: Avid sports follower (Swimming, Athletics, Cricket, Rugby – ardent Blue Bulls fan, can't get enough of our Blitzbokke at the moment).

How did your career in the mining industry begin and where are you now?

After having been retrenched from SOEKOR in 1994, I contacted my good mate Ricardo Ferreira, Chief Seismologist at Sibanye Gold, who distributed my resume amongst the Far West Rand and Free State region's Rock Engineering practitioners. I was then contacted one morning by the late Johan van Wyk, Rock Engineering Manager at Vaal Reefs, asking me if I'd be interested in interviewing for a position at Vaal Reefs. I am currently managing the Rock Engineering Department for Glencore Coal South Africa.

Why did you choose Rock Engineering?

It is more a case of Rock Engineering having chosen me, as I had studied Physics and Geophysics at the University of the Witwatersrand. After I'd been retrenched at SOEKOR, I could not find any suitable work in the field of Geophysics, and following the interview session with Johan and his team, I decided to venture into Rock Engineering at Vaal Reefs. Studying Geophysics at the University of Witwatersrand during 1990 and 1991, the Rock Mechanics module formed a minute part of the Geophysics degree – in fact, it consisted of 2 sets of double lectures given by the late Nick Gay, and at the time really only covered the basics. At the time, I'd never envisaged that Rock Engineering would be the career path that I'd ultimately be working and thriving in.

Please tell us a bit more about your career journey?

I initially registered to study Physics at the University of Witwatersrand, but decided after my third year to change over to Geophysics, as this offered an interesting and viable alternative to doing my honours degree in Physics, and working in a laboratory. I was fortunate enough at the time to get a bursary through SOEKOR for my third, as well as my honours year, in Geophysics. After completing my honours degree in Geophysics, I completed my one-year compulsory military service. Following this, I moved to Cape Town and worked at SOEKOR as a Junior Seismologist. I was promoted in 1991 to Seismologist, but following a protracted period of instability at SOEKOR, I was retrenched in 1994. During my tenure at SOEKOR, I enjoyed all the splendour and attractions that the Cape has to offer, staying for a period in Stellenbosch and finally in Sea Point, and also made many good friends during this phase of my life. I then decided to move back to Johannesburg to pursue other opportunities after this and was fortunate to be considered for an interview at Vaal Reefs, which having been successful, led to the next phase of my career. It was a dynamic and exciting period to be in Rock Engineering, and many of today's prominent Rock Engineers refer in their resumes to having spent some time at Vaal Reefs. During this phase, I was mainly involved with the Moab Khotsong (then known as Vaal Reef No.11 shaft) shaft development work, and also conducted Minsim and BESOL MS numerical modelling work for Brian Harris, Section Head for Vaal Reefs No.11 shaft, on the shaft pillar extraction. It was during my COM practical examination, which was conducted at the Tau Lekoa shaft (then known as Vaal Reef No.10 shaft), that I had my first interaction with Awie Swart (Rock Engineering Manager at Western Areas Gold Mine) who, together with Johan Laas (Section Head for South Mine), examined me. At that stage, I was staying at singles quarters in Orkney and would drive home to Johannesburg on weekends. On the way to Johannesburg, I would pass the Western Areas North Shaft headgear, which piqued my interest, and led me to researching Western Areas Gold Mine. A while later, I came across an advert looking for, amongst others, a Strata Control Officer at Western Areas Gold Mine, and I went through for the interview session, which turned out not to be successful. However, following the interview, I was contacted by Willem De Maar (Group Rock Engineer for JCI) who invited me for a discussion around whether I would rather be interested in taking up a Strata Control Officer position at Tavistock Collieries, as there were also promotional possibilities in the coalfields. At that time, however, my heart and mind was set on working at Western Areas Gold Mine, so I politely declined the offer. A short while after this, I was contacted by Awie Swart who indicated that the successful candidate for the Strata Control Officer position had declined the offer, so if I was still interested, the position was available to me. Having accepted the offer, I began my stint with JCI and Western Areas Gold Mine. A short while after I had joined, Awie called me into his office to let me know that he was leaving the company and immigrating to Australia to work for SRK. It was then that John James was appointed the Rock Engineering Manager at Western Areas Gold Mine. He had, up until this period, been in charge of the South Deep project. I now directly reported to Dr Martin Raffield and so began the next exciting phase of my career. The Western Areas Rock Engineering Department at the time consisted of a dream team, which was a leading department in the field of Rock Engineering (Dr Martin Raffield, Navin Singh, Dr Alex McDonald, Imraan Saloojee, Leon Jiyana, Trevor Rangasamy, Theike Gerritsen and Parasuraman Chetty). My colleagues changed over the years, furthering their own interests, with William Joughin and Willie Pretorius joining the team later. This formed the formative years of my development, which allowed me to progress through the ranks until I became the Chief Rock Engineer at South Deep. After spending more than 12 years at South Deep, I was approached to interview with Xstrata Coal. I have now been with Glencore Coal South Africa, formerly known as Xstrata Coal, for around 8 years.

What are some areas that you believe will become of increasing importance in the near future of the rock engineering discipline?

The need to continually be willing to adapt to your situation, as a good colleague of mine at South Deep would say, "You need to learn to dance on a moving rug". With the advancements in technology happening at such a rapid rate, there are a number of opportunities for us to often do our jobs smarter and safer. An example in point is the usage of drones (UAVs), which is now quite common across a number of the opencast operations, as well as the usage of visualization packages such as GIS in our integration of the various data sets that are presented to us, towards formulating viable solutions. Some of the focus areas are extending the current knowledge of pillar design and the usage of representative numerical modelling packages for optimising mine layouts in the hard and soft rock. These are areas that will have a major impact in terms of optimising the available resources at hand.

What advice would you offer people aspiring to be in your position?

You need to tackle the bull by the horns, be willing to put in the hard yards, and have a personal strategic plan that you follow. Be willing to take on different projects, outside of your comfort zone, which down the line will enrich you in terms of knowledge and experience.

Who is your role model/mentor?

There have been a number of individuals throughout my career who have played a significant role in moulding and developing me. I believe it is important to take the best attributes from each person and nurture and develop these further. I will forever cherish the time spent under the guidance of Dr John James, Phil Hopkins, Ken Hannekom and also Johan Klokow. I have to also add that working with my colleagues has been an extremely satisfying and inspirational motivator during my career so far.

What is the best advice you have ever been given?

"The devil is in the detail", a saying that Johan Klokow would often utter, and that says it all.

Presidential Tour 2017

Johannesburg to Cape Town
25th September – 30th September 2017



SANIRE
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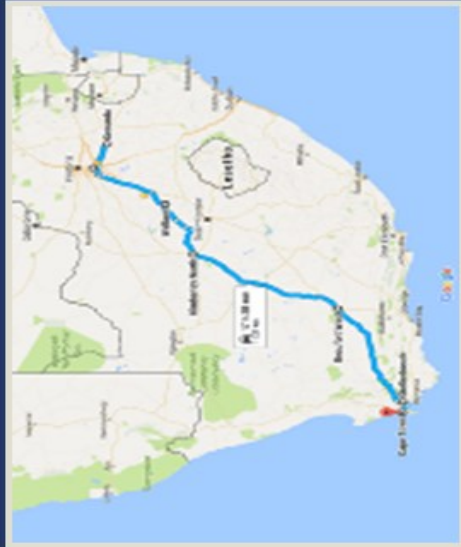
**Only 36 spots!!
Book now!!!**

#SANIREPRESIDENTSTOUR2017

What is the Presidential tour?

The purpose of the Presidential tour is to expose the members of SANIRE to new and different working environments within the Rock Engineering / Geological field.

Our Route



Paul.coutopm@gmail.com / 083 391 9243
Paul.couto@harmony.co.za



Monday – 25th September 2017

Birchwood – Arrival 17:00
– Tour briefing 18:00–18:30
– Dinner 19:00
Birchwood – Breakfast 06:00–07:00
– Depart to Sasol Coal 07:00



Tuesday – 26th September 2017

Sasol Coal – We will visit their mock up underground stope and training center which has just been completed.

Depart for Welkom: 13:00 – We will have a KeBenJa Brewery Tour before dinner starting at 16:30



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Presidential Tour 2017

Presidential Tour 2017

Tuesday – 26th September 2017

Welkom Inn Hotel – Check in - 18:00
Dinner - Sietas Restaurant - 19:00



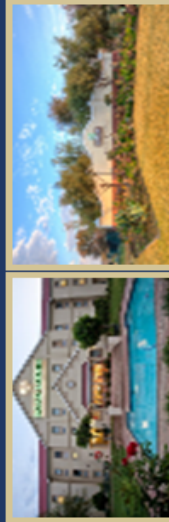
Wednesday – 27th September 2017

Welkom Inn Hotel – Breakfast - 06:00 - 07:00

Depart to Bambanani: 07:00 – 07:30
Shaft Pillar Extraction.
Underground visit.

Depart to Kimberley: 14:00 - Check in at the
Road Lodge Kimberley.

Dinner – 18:00 – Flamingo Casino



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Thursday – 28th September 2017

Road Lodge Kimberley – Breakfast: 07:00 –
08:30



Big Hole Museum Kimberley: Arrival at 09:00
Tour will start at 09:00-10:00 (±1 hour).
Lunch 11:00 – 12:00 Café at museum.

11:00 - Depart to Beaufort West – Check in at
the Wagon Wheel – 17:30

Dinner – 18:00
Breakfast – 06:00 – 07:00



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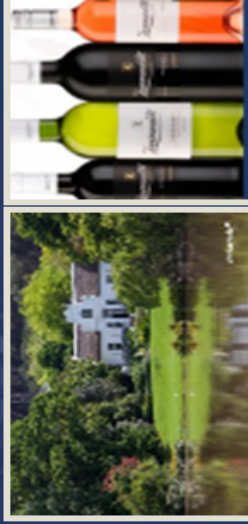
Friday – 29th September 2017

07:00 - Depart to Zevenwagt Wine Farm and
Tin Mine.

Arrival – 12:00

Wine Tasting/Snacks – 12:00 - 15:00

SANIRE Presidential Late Lunch / Early Dinner
– 15:00



18:00 - Depart for W & A Waterfront Cape
Town - for final night stay. City Lodge Hotel
W & A Waterfront



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SANIRE BIRTHDAYS

MAY TO JULY

MDG Salamon	PJ Lotter	DEK Mulville
A van Schalkwyk	WA Naismith	RC Mynhardt
JV James	S C Hageman	DM O'Connor
M F Handley	P Brenchley	JW Latilla
TRM Molikeng	JC de Villiers	JJ Geyser
DC Oldroyd	ES du Toit	OJ van der Merwe
D E Scholtz	JC Pretorius	M Makajane
M Chatfield	JD Smith	LG Skorpen
JM Oelofse	JF Chen	T Mokoena
J C Visagie	RM Carey	CJ van der Nest
CE Smith	J Moller	LJ Scheepers
W Holtzhauzen	FRP Basson	PC Cronje
B van der Kevie	DR Fenn	TJ Chauke
RIL Ferreira	JJ van Staden	DJ Peters
W Zirima	P Akanyang	RR Lousteau
EJ Sellers	AWJ le Roux	PY Tshilumba
MM Sibiya	AV Visser	K Nei
FM Motebang	RP Matlou	TI Khomalo
AH Olivier	CT Jooste	DH Mossop
JP Rangwaga	F Joel	P Ndaba
DM Raby	SC Sibilanga	TDG Mathews
FPJ Steenkamp	P Matjeka	LS Ledwaba
M Bester	J M Muaka	MR. Mehdi Nasiri
P Mpunzi	JP Jonker	JA Louw
SF Potgieter	WL van Aarde	MC Segoete
TA Selengoane	A Lamprecht	JA Maritz
Y Jooste	MCB Stander	MA Mwape
T Dlokweni	G Maphanga	HC van Rensburg
SE Ntshabele	IJ Smit	F Lloyd-Mills
N Nyamsi	NK Mabaso	D Ratsaka
JN Dodds	M Zwane	T Mokele
T Petzer	R Malogwa	SR Moate
LL Ditlopo	FJ Rheeder	WL Janse van Rensburg
T Itholeng	HM Mohlala	MPS Pretorius
A Williams	T Walsh	FP Nhlapo
SK Mosotho	TW Chauke	LC Lochner
T van Aard	M Coetzee	T Ranyakane
SE Madonsela	NA Nkosi	SZ Ndlovu
H Netshifhire	JM Matsobane	PR Shiri
LN Mtonxa	BB Tati	J du Toit
MB Kekana	A Laurens	D Sewnun
R van Heerden	A Boniface	M Modika
AP Boaduo	C Grobbelaar	JA Mclean
SP Matewe	UWOL Vogler	GBN Nkosi
J I Kwofie	JB Scheepers	EJ Hattingh
OB Barker	JA Potgieter	GW Rabey
GH Brinch		JP Gouvea

ADVERTISING

The **SANIRE** Committee has decided to increase the advertising opportunities for suppliers who would like to market there business and products in the Rock Talk.

The table below indicates the prices for different size advertisements as well as bookings for the future.

Please contact **Alida Hartzenberg** for more details

Alida.hartzenberg@lonmin.com

Type of advert	Rates (Excl. VAT) Solus, Casual	Availability per newsletter	Select Publication Issue (Mark with x)	
			July 2017	October 2017
Square (Not front page)	R 1 000	4		
Skyscraper (Front page)	R 4 000	1	Booked	Booked
Full page (Middle)	R 8 000	2	Booked	Booked

New Members January 2017—April 2017

No.	TITLE	NAME	SURNAME	GRADED AS	ISSUED NO.
1	Mr	Gregory Charles	More O'Ferrall	Member	M118
2	Mr	Mitch	Wiggins	Member	M281
3	Mr	Reza	Saltanat Pouri	Associate Member	A631
4	Mr	Joseph	Kwiri	Associate Member	A632
5	Mr	Phuti Amos	Manamela	Associate Member	A633
6	Mr	Wynand Frederick	Grobler	Associate Member	A634
7	Ms	Ledile Makkie	Madiba	Associate Member	A635
8	Mr	Sakhile	Khumalo	Student Member	S014
9	Mr	Modibedi	Tshukudu	Student Member	S015
10	Dr	Petrus Jacobus	le Roux	Fellow	F043

ROCK STARS OF THE QUARTER



Full Names: Ivan Wright & Alan Wright

Positions: Superintendent/Sectional Rock Engineers

Company/Organisations: Sibanye Gold

Date and Place of Birth: 20 February 1987 (Twins)

Education: Chamber of Mines Rock Engineering Certificate, Strata Control, COMSOC 1 & 2

First Job: **Alan:** Top Vending – Cash Office Controller

Ivan: Top Vending – Route Merchandiser

Personal Best Achievement/s: **Alan & Ivan:** Rock Engineering Certificate

Philosophy of Life: **Alan:** My life's philosophy is that life is a fact and cannot be false, so I only focus on the positive thoughts and eliminate all negative thoughts around me.

Ivan: At the end of the day, it's not about what you have or even what you've accomplished... It's about who you've lifted up, who you've made better. It's about what you've given back.

Favourite Food/Drink: **Alan:** I would prefer any steak topped with cheddar melt sauce over it, served with roasted potatoes and a green salad. Favourite drink would be Tab (and no, I'm not on a diet) or just any glass of juice.

Ivan: *Lamb shanks*, served with creamy mashed potato and veg, together with a glass of passion fruit lemonade.

Favourite Sport: **Alan:** I am in love with all sports, but if I have to choose one, it would be rugby purely because I was raised up playing rugby; by the way, I'm a big Sharks supporter.

Ivan: Rugby (Stormers Supporter)

How did your career in the mining industry begin and where are you now?

Alan: While working as a cash controller at my previous employer, I realised that I was called for a bigger purpose in life. Growing up in a mining community, I always believed that you need to give back to the community. Without any money at that time, I realized that the only way to help the community is to join the mining industry to assist the mine houses to reach their strategy goals, and by that, the mine could help the communities to grow. In June 2008, I was lucky enough to be rewarded a learnership as a learner official in the Gold Fields' mining program. Through this learnership, I obtained my blasting certificate and my production supervisor's certificate. My twin brother, Ivan, had joined the Rock Engineer department, and I fell in love with the professionalism of the Rock Engineers Department when consulting mining personal. I then immediately applied to be part of the elite Rock Engineering Department, where I immediately started with my strata control studies, and proceeded onwards to 2016 when I passed my Rock Engineering Certificate (Hard Rock). I'm currently working as a Sectional Rock Engineer in the Sibanye Gold Deepening Project.

Ivan: I had the opportunity to start working at a Goldfields Gold Mine way back in June 2008 as a Strata Control Observer. Passion and motivation drove me to start studying towards my Strata Control Certificate, which I passed in 2010. I was promoted to a Supervisor Strata Control after obtaining my Strata Control Certificate. I realised quickly that there's a lot still to learn from the great leaders in the mining industry, which I had to master quickly. Hard work, commitment and nights off studying towards my Rock Engineering Certificate paid off, and I successfully completed my Rock Engineering Certificate in 2015 and was appointed as the Superintendent Rock Engineer.

Why did you choose Rock Engineering?

Alan & Ivan: We had the opportunity to form part of an elite Rock Engineering Department, and so we became part of the family of the department, which is the most respected and well-organized department in the entire mining industry (which is something we had not known). While working, we realised that this was not by accident, but rather a calling by GOD to utilise our skills, technical abilities and our desire to provide expert advice on geotechnical interpretations to solve the complex challenges within the mining industry.

Please tell us a bit more about your career journey?

Alan & Ivan: We both started to work at Gold Fields in 2008, continuing up to 2012 when Sibanye Gold unbundled from Gold Fields. We have 9 years of working experience in the gold mining industry.

What are some areas that you believe will become of increasing importance in the near future of the rock engineering discipline?

Alan & Ivan: We believe that the current Rock Engineering systems are due for renewal, but no funds are being made available to advance the Rock Engineering systems through modern technology. Less time is being spent on design and research by various mining groups due to excessive cost and production commitments. More Senior Rock Engineers will leave the mining industry, which means that a large amount of experience and knowledge will be lost if we do not enable the upcoming Junior Rock Engineers.

What advice would you offer people aspiring to be in your position?

Alan: I would say it is highly important for every upcoming Rock Engineer to remain humble towards your superiors while taking on your journey. Rome was not built in a day, so please don't rush things in life; the difficult times will teach you something new which you might use in future, although you might not understand it at that moment. Teach yourself something new in Rock Engineering every day before you go to sleep at night. You will thank yourself one day when that one point you have learned crosses your path. While you are on your learning path, you should always lead by example because someone might use your life as a motivational point in their life.

Ivan: Success is determined by your commitment, motivation and ambition in life; if you want to achieve, you will achieve because success is driven by your heart. Study hard and ask question; it's not always easy but if the passion and commitment is in place, you are already half way. Good luck with the journey.

Who is your role model/mentor?

Alan and Ivan: We believe that your role model/mentor in life cannot be only one person. We have been coached and trained by numerous Rock Engineers who made us the Rock Engineers that we are today. We value every Rock Engineer that has crossed our path by adding any form of experience, knowledge or education to our career.

What is the best advice you have ever been given?

Alan and Ivan: Our parents always taught us to never look back and regret any obstacle which you were struggling with at that time, but instead to keep your head up and move slowly forward to something much bigger and greater ahead. They believed that an obstacle is never a bad experience, but just another way that life teaches you a lesson.

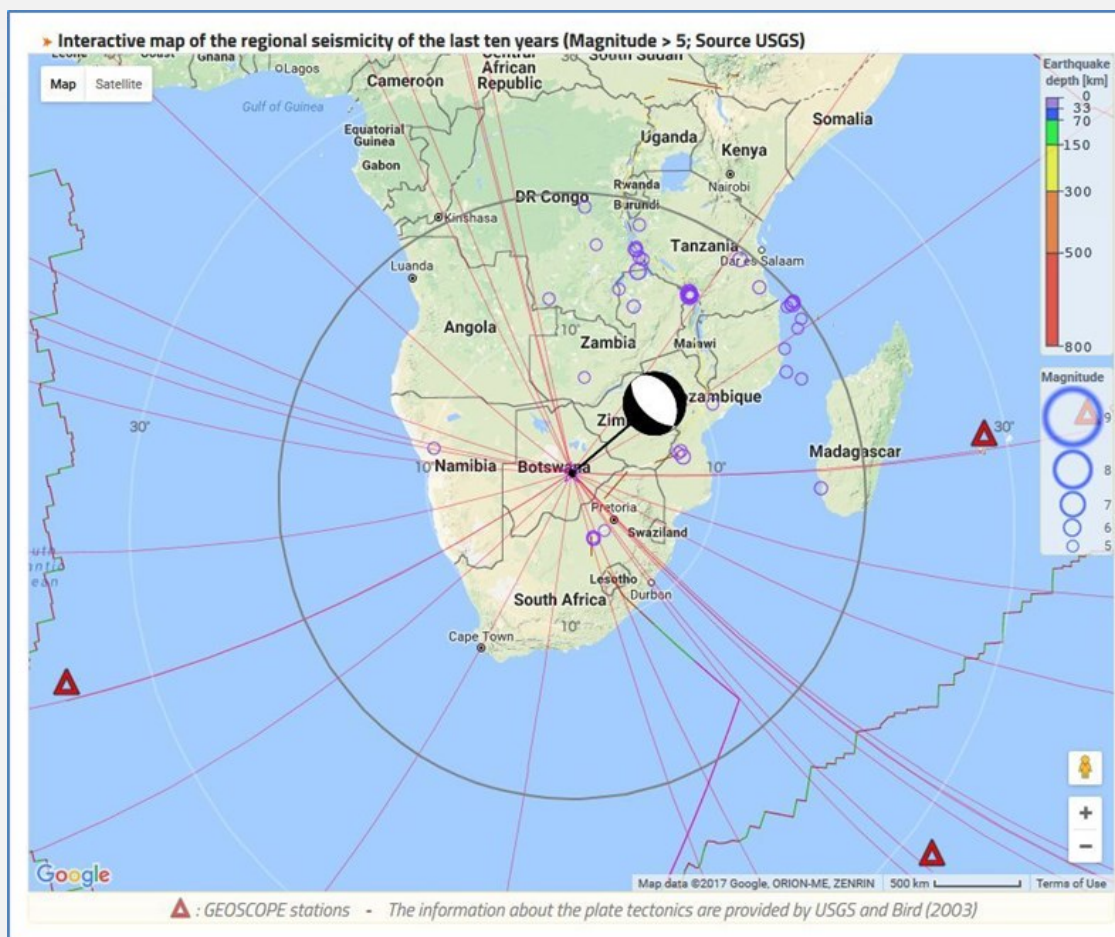
TECHNICAL CORNER

M6.5 earthquake in Botswana, 3 April 2017

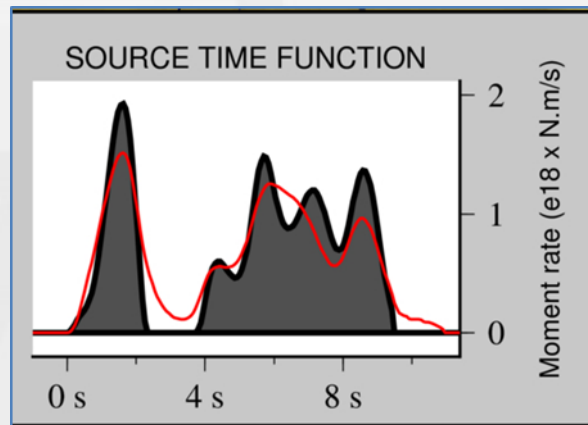
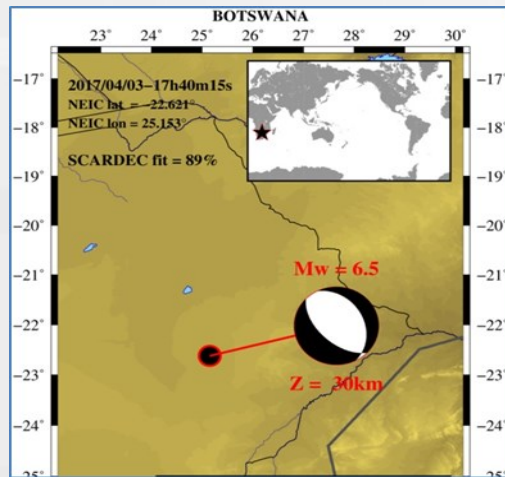
by F.Essrich

A magnitude 6.5 earthquake struck central Botswana on Monday, 3 April 2017 at 7h40pm, the largest to occur on this continent in 11 years. The location was unusual as most large tectonic quakes in southern Africa are closely associated with the East African Rift System, an extension failure zone stretching from Djibouti by the Red Sea all the way to southern Mozambique. The key words here are 'most tectonic': the most seismically active regions in Africa are the gold mining districts along the edge of the Witwatersrand Basin, but these events are associated with mining and not with plate tectonics.

With an estimated depth of 29km, the source of the M6.5 tremor is not related to either mining or even fracking, as was guessed by some fake-news articles on the internet. It is simply too deep to be influenced by human activity. And, with 25 global seismic stations having recorded the quake, the source location is too accurate to allow for much uncertainty (see wave paths in Figure 1 below).



Thanks to the high data quality, seismologists were able to invert the source mechanism: normal slip failure with either shallow dip towards ENE or a steep dip towards WSW (see the beach ball symbol in Figures 1 and 2 below). We cannot be sure which one occurs, as there are always two possible solutions to the model commonly used to determine the failure mechanism from incident wave patterns.

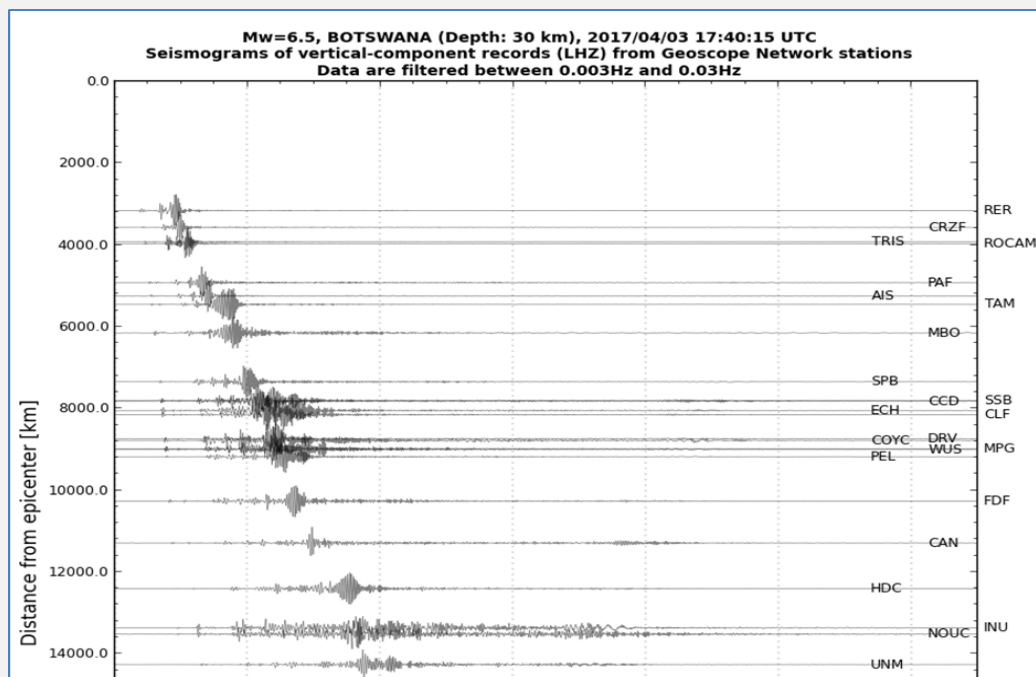


The tremor location was distant from towns and major civil infrastructure, being approximately 130km from Mochabane, central Botswana. In Serowe, the closest settlement, residents reported 'it was shaking heavily, the light bulbs were shaking, the windows almost cracked'; in Gaborone, 'windows rattled like mad' and, at least one person has 'neva been so scared in my life.' Others reported strong shaking for several seconds, plates and vases falling off shelves, and some people evacuating houses.

In the Johannesburg CBD, where seismic waves arrived around 4 minutes later, high-rise buildings swayed for 10–15 seconds, couches were shifting and dogs 'went mad'. However, no structural failures were reported and no significant injuries were reported to persons (or pets!). Shaking, or at least notable vibrations, were felt as far away as Knysna and Walvis Bay.

These eyewitness reports allow for the compilation of a Modified Mercalli Intensity (MMI) map, which is based on the effect an earthquake has on its environment. Obviously, the greater the distance to the source, the lower is the MMI. Mercalli intensity is complementary to the Richter scale, which is a measure of the source strength. Richter Magnitude is fixed and does not change with distance.

Interestingly, the slip duration was around ten seconds and the energy release profile shows changes over time, which indicates that varying amounts of strain energy were released until the failure process terminated and the slip surface locked up again and stabilised (see source time function in Figure 3 below). The seismograms also show a number of small slips prior to the main rupture, i.e. rupture was probably initiated on a small scale and then escalated from there (see Figure 4 below).



Amazing what you can learn from seismic data ... and unless you are a mine seismologist, you don't even have to go down there!

Sources: geoscope.ipgp.fr, sphicks.weebly.com, earthquake-report.com, www.chronicle.co.zw



SANIRE

SOUTH AFRICAN NATIONAL INSTITUTE OF ROCK ENGINEERING

South African RockBowl 2017
hosted at the
KLOOF TRAINING ACADEMY
on
26 May 2017

09:00 – 14:00

A minimum of 20 questions, answers and references per team needs to be submitted to Paul Couto before the 13th April 2017.

AfriRock 2017 team trials will be played at the event.
Don't miss out on an opportunity to represent South Africa

Closing date for registrations and payments:
19th May 2017

Organising Committee:

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Registrations and Payments

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SANIRE members - R200

Non-members - R300





SANIRE

SOUTH AFRICAN NATIONAL INSTITUTE OF ROCK ENGINEERING

Vision: To promote the interests of a vibrant South African Rock Engineering Fraternity

Mission: SANIRE promotes the advancement of the Rock Engineering discipline through the following objectives:

- ◆ Encouraging interest and the advancement of education in Rock Engineering
- ◆ Maintaining professional practice and high standards of ethics
- ◆ Encouraging networking; Collaboration and information exchange
- ◆ Identifying, promoting and facilitating rock engineering related research

Values:

- ◆ **Honesty**
- ◆ **Integrity**
- ◆ **Professionalism**
- ◆ **Accountability**
- ◆ **Transparency**

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EDITORS CORNER

This is your newsletter and I would like to hear from you.

*If you have any information or stories that we can use, please submit them via
email to*

alida.hartzenberg@lonmin.com

Your feedback will be highly appreciated.

Alida Hartzenberg

