# Fusion



Newsletter of the Southern African Institute of Welding

August 2018







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# Time to Celebrate... ...70th Annual Dinner a Sponsor's Dream

This year the SAIW is 70-years old and we celebrate one of the great success stories in South African industry.

What a journey it has been! Way back in 1948 the SAIW was founded and simultaneously became a founder member of the world's most important welding body, the International Institute of Welding (IIW).

The SAIW has been an Authorised National Body (ANB) of the IIW since 2003, offering the full range of IIW qualifications

Welder and Inspector.

The SAIW is also accredited by the Quality Council for Trades and Occupations (QCTO) as per the South African National Artisan Welder programme that has recently been introduced. We believe that we are the first organisation to be accredited to this programme.

- Engineer, Technologist, Specialist, Practitioner,

Also, SAIW training programmes and personnel certification programmes are recognised by the Department of Labour (DOL) for registration of certified Pressure Equipment Inspectors.

Our teaching staff, like our students, represent the full gamut of South African society and are dedicated to making a difference in South Africa by providing our youth and more experienced personnel in the industry an opportunity to get ahead in life.

SAIW President, Morris Maroga, adds that recently the SAIW became part of a powerful international welding alliance – The International Alliance for Skills Development Belt and Road including BRICS – which

aims at incorporating all the countries in this region in a cooperative initiative to provide welding training to the youth. Some of the countries that will be working closely together in the alliance are: South Africa, China, Russia, India, Ukraine, Singapore, Philippines, Cameroon, Ghana, Nigeria and others.

In another initiative, together with the Nigerian Institute of Welding, the SAIW is building The Welding Federation of Africa (TWFA) to ensure the standards of welding are at globally accepted levels throughout the continent.

One of the SAIW's important initiatives was to create the SAIW Foundation in 2013. This is a public benefit organisation which provides training to disadvantaged individuals in a wide range of areas including welding and inspection, the training of trainers for welding and related technologies and more. In the first two years the SAIW Foundation had more than 10 graduates successfully complete internationally recognised programmes.

In short, over seventy years, the SAIW has become the foremost welding training and standards watchdog in Africa.

This is a cause for real celebration.

See next page on what to do to become a sponsor at the Annual Dinner.

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# SAIW's 70th Annual Dinner The Bash of the Century

#### A SPONSOR'S DREAM



#### **MASTER OF CEREMONIES**

Donovan David Goliath from Mthatha in the Eastern Cape left his lucrative advertising job for a full-time career in comedy. His act is based around insightful storytelling and simple truths using various characters and impersonations.



### **ENTERTAINMENT**

Swing City was born of the love of swing music from three of South Africa's most loved artists. Backed by a full jazz orchestra and band, celebrating their love of jazz, swing and blues, but adding a modern day twist to the genre.

### **Message from the President**

The 70th Anniversary is indeed a momentous occassion for the SAIW and the culmination of this celebration is at our Annual Dinner on 7 September.

This is an opportunity for you our members and members of the welding industry at large to participate and make this moment a truly great one. I urge you all to get involved by



SAIW President Morris Maroga.

becoming a sponsor and helping to make our 70th year live on in memory for years to come.

Please read the details on the right and take action.

Thank you.

### **BOOKING FORM**

### ANNUAL DINNER FRIDAY, 7 SEPTEMBER 2018 SENATE ROOM, EMPERORS PALACE

### SPONSORSHIP DETAILS AND BENEFITS

### SPONSORSHIP PACKAGES

PACKAGE 1 - 2 Tables, 20 guests.

Benefits include: inclusion in all promotional material and during dinner; branding and copy in Engineering News special feature. **Sponsorship price: R35 000.00 + VAT** 

PACKAGE 2 - 1 Table, 10 guests.

Benefits include: inclusion in all promotional material and during dinner; branding and copy in Engineering News special feature. **Sponsorship price: R30 000.00 + VAT** 

### **REGULAR BANQUET BOOKINGS**

TABLE BOOKINGS - Each table of 10 costs R8 000 + VAT

INDIVIDUAL BOOKINGS – Each individual seat costs R850 + VAT

(Please fill in no.)

# INDICATE CHOICE: SPONSORSHIP BOOKINGS PACKAGE 1 R35 000 +VAT INDICATE CHOICE: TABLE AND INDIVIDUAL BOOKINGS NO. OF TABLES OF 10 R8 000 +VAT per table NO. OF INDIVIDUALS R850 +VAT per person

(Please fill in no.)

| CONTACT DETAILS              |  |
|------------------------------|--|
| Company/<br>Individual Name: |  |
| Postal Address:              |  |
| VAT No: (if applicable)      |  |
| Contact Person:              |  |
| Contact No:                  |  |
| Email Address:               |  |

BOOKINGS CLOSE 31 AUGUST 2018. BOOKING IS ON A FIRST COME FIRST SERVED BASIS.

FAX BACK TO DIMITRA KREOUZI 011 836 4132 OR EMAIL TO dimitra.kreouzi@saiw.co.za

For further information or any additional requirements contact Dimitra on above number.



# SAIW/MerSeta Team Changes Nature of Arc Cup

The team of five SAIW welders, sponsored by the MerSeta, that recently participated in the third edition of the Arc Cup, comprised three female competitors out of the total of five. "This shook up the competition organisers in terms of recognising the power of women in the welding industry with the result that a dedicated Arc Cup for women is on the agenda for all future competitions," says SAIW's Etienne Nell whose participation on the Arc Cup organising committee was an essential ingredient in this innovative move.

The South African team, which comprised Zelda Khumalo, Rose Mfabane, Princess Mpembe, Michael Ross and Chandle Cloete acquitted themselves well gaining a bronze medal in the team competition, which comprised 36 countries.

The three females came from the SAIW Foundation – an NGO which provides bursaries for young welders – and the two males represented the two TVET Colleges – Boland TVET College in Worcester and East Cape Midlands TVET College in Uitenhage – which have been selected to become the Centres of Specialisation for welding in a Department of Higher Education special project.

Ross is from Boland College and Cloete from East Cape Midlands.

The team was accompanied by team leader, MerSeta's Ester van der Linde and Nell was invited to be a judge.

"Both Ester and Raymond Patel, MerSeta CEO, have played an invaluable role in making the participation of South Africans in the Arc Cup possible. The SAIW and the South African welding community in general are most appreciative of their enthusiasm and dedication to the industry," says Nell.

"BOTH ESTER AND RAYMOND PATEL, MERSETA CEO, HAVE PLAYED AN INVALUABLE ROLE IN MAKING THE PARTICIPATION OF SOUTH AFRICANS IN THE ARC CUP POSSIBLE. THE SAIW AND THE SOUTH AFRICAN WELDING COMMUNITY IN GENERAL ARE MOST APPRECIATIVE OF THEIR ENTHUSIASM AND DEDICATION TO THE INDUSTRY," SAYS NELL.

The Arc Cup, which is regarded as the second most prestigious international welding competition after the international WorldSkills event, was originally the national Chinese national welding competition for the selection of the Chinese WorldSkills participants. It was then opened to international participation in order to expand the opportunity for welders to get used to WorldSkills competition conditions.

The competition is organised in four categories: Student – aimed at school leavers; TVET and Training Colleges – aimed at meeting WorldSkills requirements and used to select the Chinese team for the WorldSkills international competition; Open – up to the age of 35 and Theoretical – test of theoretical knowledge.



The three South African female participants at the Arc Cup helping to change the nature of the competition left to right Princess Mpembe, Rose Mfabane and Zelda Khumalo.

The South African contingent competed in the Student category and had to complete a single process weld on fillet plate and pipe using the Manual Metal Arc (MMA), Gas Metal Arc (GMAW) and Tungsten Inert Gas (TIG) welding processes.

They also had to assemble a specific project as per a drawing provided using all four welding processes - i.e. the three processes described above plus Flux-Cored Arc welding (FCAW).

Nell says he was pleased with the team's results and hoped that future SAIW teams will do even better. "The Arc Cup is excellent experience for our welders to get used to international competition and hopefully in time we will consistently be at the top of the pile in this competition and WorldSkills competitions internationally," he says.

He concluded that the South African welding community owes a huge debt of gratitude to the MerSeta not only for their financial assistance but also for their encouragement and enthusiasm.



## **KZN Certification Dinner a whopping success**

The decision by SAIW to grow the KZN branch into an independent centre has certainly paid dividends. The outstanding Certification Dinner held recently by the branch is ample example of its success. The SAIW congratulates KZN on its excellent achievements and looks forward to even stronger growth in the province in future.













































### **SAIW Foundation Moves with the Times**

The SAIW Foundation, a company which the Southern African Institute of Welding started as a public benefit organisation to provide training to disadvantaged individuals in a wide range of areas including welding and inspection, the training of trainers for welding and related technologies and more, is changing with the times.

In the past, learners recruited by the SAIW Foundation were placed in an International Institute of Welding (IIW) programme with the aim that they would exit with an IIW International welder diploma.

"This has been very successful," says SAIW's Etienne Nell, "but with the advent of the dual training QCTO system, a Dept. of Higher Education and Training initiative, we are changing the training format."

In essence, explains Nell, future SAIW Foundation training will align itself with the Quality Council for Trades and Occupations (QCTO) Artisan Welder Curriculum which is aimed at producing: a skilled and capable welding workforce to support economic growth; an increased



availability of intermediate welding skills and an increased delivery of properly qualified artisan welders.

This system, unlike the old one, reflects occupational competence; new, industry-designed curricula; trade theory, simulated practice and work experience tightly interwoven. All students will now get practical training and work experience with employers selecting and managing their own apprentices.

In the latest project Arcelor Mittal S.A. (AMSA) has committed to appoint 15 apprentices signing an MOU with the SAIW, which will provide all the theoretical and practical training over the next three years.

AMSA will supply all workplace learning while Nell will oversee overall quality assurance.

Theoretical and Practical sections of the training will be funded by the SAIW Foundation and AMSA have agreed to donate all the steel required for the project.

Nell says that this is a pilot project and that the SAIW are looking for other companies that would be interested in this new and exciting way of training welders. "This new system will certainly make a palpable difference to the quality of graduates and of the welding industry as a whole. I urge other companies to take a leaf out of AMSA's book and initiate training in this manner in conjunction with the SAIW," he says.

Nell adds that the new system is a result of the new-look Dept. of Higher Education and Training which deserves credit for what they are doing for skills development in South Africa. "Minister Pandor has been most effective in ensuring that the nature of training in this country emphasises quality and not quantity and in pushing the Setas and industry at large to do their best to ensure that skills training – a national priority – is of the highest quality.

The Future Is Not What it Used to Be

The old adage 'The future is not what it used to be' is no more evident than at the SAIW with the introduction of its Future Welder Training Centre, which will use augmented or virtual welder training techniques.

Augmented welder training, in essence, allows students to work with real 3D objects combined with virtual computer-generated images to give them the most realistic welding experience possible," says SAIW executive director, Sean Blake. "They can repeatedly practice techniques, at no extra cost, and the system can be networked and controlled by the tutor for the optimal teaching tool."

He adds that augmented welder training could possibly revolutionise the way welding is taught.

"Many people in the industry feel that there hasn't been sufficient change in the past 50 years in the way welding is taught. This, they say, may have led to a negative image of the profession and the consequent shortage of welders worldwide.

"Many other industries are ahead in the use of modern technologies for training purposes and its time that the welding industry caught up. We hope that the SAIW will be able to show the way in Africa," he says.

The first machines that will be used in the new SAIW Future Welding Training Centre are the Lincoln Electric Real-Weld and ClassMate systems and the Soldamatic Augmented Reality Welding Simulator.

The Lincoln Robotic ClassMate (pictured right) is a complete robotic training solution designed to meet the need for advanced manufacturing training.

With the REALWELD® Trainer, students can practice Stick, MIG and Flux-Cored arc welding, while receiving audio coaching and weld performance tracking on 5 key parameters. It's like having a teacher's assistant right in the booth helping to advance every student toward their career goals.

Lourens Hand, a long-time staff member of the SAIW, has been appointed as a Welding Instructor to run the new centre. (See back page)



## **Qualification and Certification**



# CONGRATULATIONS TO THE PEOPLE BELOW WHO RECENTLY ACHIEVED QUALIFICATION AND CERTIFICATION

COMPETENT PERSON- PRESSURE VESSEL

Barlow BD Khanyile NP Masete PL Mketo SSN Pillay RL Swart BJ Wilton LG

Competent Person Boilers

Basson CD Van der Merwe DJ

Inspector of Pressure Equipment

Krause AJ

MT 1

Madlala Z Mbangwa A Ratsatsinyane E Vermeulen WJ

Kubheka MK

MT 2

Cronje AR
Edovard NK
Esterhuizen W
Fortuin JJ
Gibson GL
Holt CJ
Jordaan C
Langenhoven J
Le Grange EC
Madlala Z
Makongoza K

Mbangwa A Meredith GQ Mhlanga T Monkwe TS

Muzondwa K Ntombela RM Randera S

Roode C Shandu VV

Simelane MT Swanson DM

Van Der Westhuizen CC

Vermeulen WJ Xulu SS

PT 1

Ngoako TH Vermeulen WJ

PT 2

Cronje AR
Edovard NK
Fortuin JJ
Gibson GL
Jordaan CC
Jordaan KA
Le Grange EC
Meredith GQ
Mhlanga T
Moloi T
Monkwe TS
Muzondwa K
Naidu LS

Monkwe TS
Muzondwa K
Naidu LS
Ntombela RM
Nzimande TL
Roode C
Swanson DM
Van Der Westhuizen CC
Vermeulen WJ

UT1

Khumalo E Maceve B Mahlo VT Maremela BS Masithela MA Monkwe TS Ndhlovu M Smanga KA

UT 2 Brown LL

Holt CJ Jordaan C Malgas KFP Mhlanga T Mokoena NA Monkwe TS Ntombela RM Ramphele CS

**UT WALL THICKNESS** 

Baloyi LD Bam RM Botha PR Gibson GL Isaacs OS Jordaan KA Kriel GP Le Grange EC Lebea TA Madie TW Molokomme S Morkel-Brink M Mufamadi N Roode C Seanego TL Stevenson JJC Stols A Swanson DM

Van der Merwe BL

Vermeulen WJ

**ASME** 

Botha A
Cilliers EJ
DE VOS ML
Engelbrecht IF
Geel BN
Le Roux A
Mafunda NF
Ndhlovu S
Trichardt N
Tseke CM

**IWIP-BASICS** 

Aldridge R
Bassai L
Boksan LP
Botha AL
Carstens L
Earle R
Ismael N
Jasmin BL
Joubert PR
Kapa Z
Lamula B

Lubisi F N Lukhele SS Mabuza PF Madonde NR

Mahlangu GP Mahlangu WS Manigadu J Maseko SB Mashigo BA Mathews LO Mavundla LIL

Mbonani T
Metsana MC
Meyer J
Mgidi ES
Mlembelele Z
Mngomezulu NP
Mofokeng MN
Mohan S

Mokuwe PI
Moloi FP
Mphaloane CT
Mthethwa TW
Mtolo NS
Naicker CK
Naicker KN
Ndlangamandla NP
Nkoane T
Nkosi VG

Mokoena LF

Ntlekiso M Nyalungu T Perrang W C Pienaar L

Pillay N Quintin James BQ Saira W Seyfferdt JC

Sibiya TM Simelane SA Sonlal DJ Stroebel M Strydom C

Tomlinson MG Vosloo A Werner SRL

Basics of Welding Control

Abrahams AJ

Aveling WS
Bakala JA
Davids CC
Diedericks HJ
Dladla MBJ
Ebrahim MA
Elliotte N
Firmin AC
Jasson CB
Karriem MR
Langwoood J
Luthuli LA

Maanda NE

Mali TP Maphisa TI Mlambo G Monametsi LC Motloung PS Mrwetyana QM Msomi MI Mweli ZP Mzimkhulu S Nkosi TC Nvathi CT Nyathi TZ Nvathikazi SS October S C Osman Y Pillay D Robertson J Seidle LD Smuts MG Solomons D Spies JH Theletsane MJ Van Reenen IH Van Vuuren W

Major L

RT<sub>1</sub>

Khoabane MA Maabane LH Maseko RB Maseko RB Motha SN Mukahanana L Xakaza BPM

Volschenk PH

RT 2

Monkwe TS

**Visual Testing** 

None

**RT Interpreters** 

Ntombela NK

## 3834 still booming

The benefits of having a 'stamp of approval', especially in an industry as technology-based as welding, cannot be overestimated. But, in the global village, where competition can, and does, come from almost anywhere in the world, this 'stamp' becomes essential.

The Southern African Institute of Welding (SAIW) Welding Fabricators Certification Scheme is just such a stamp and judging by the quality and quantity of companies that have been or are in the process of getting certified, it seems the scheme is doing its job!

"The size and stature of companies that have embraced the scheme over time indicates the esteem with which it is held in the industry," says SAIW Certification's Herman Potgieter. "Such companies include ArcelorMittal South Africa, Sasol and Eskom which have embraced the scheme, encouraging their suppliers to get certified."

He adds that that the scheme is not only for big companies. "I must emphasise that dozens of smaller companies have been certified rendering them more competitive in the marketplace. Big end- users are keen to see the quality credentials of all companies including – maybe especially – smaller suppliers," he says.

Among the most recent to be accredited are Matla Steel and Kinsey Alloy Welding (pictured right)

Potgieter says he is most encouraged by the continued and growing demand. "There is no doubt that the scheme has developed significant momentum, which is not surprising as there are many benefits both locally and in the export markets where the scheme, being IIW certified, is globally recognised," he says.

Potgieter reminds readers to take cognisance of the fact that with the increase in demand and mandatory requirements of certain industrial manufacturers and changes in national legislation, an increase of requests regarding ISO 3834 certification and the process involved has been received by SAIW Certification.

As these requirements cover the manufacturing/maintenance industry on a broad base and internationally in many instances, it requires a thorough understanding and knowledge of what the ISO 3834 certification entails by companies with either little or no knowledge about the certification process and relevant requirements.

The process that has to be followed can be found in detail in the Fusion of April/May 2018 (the last issue).







### SAIW NOTICE BOARD



Lourens Hand has been appointed as a Welding Instructor to run the new SAIW Future Welder Training Centre. "I am excited about making our centre an example of excellence for the rest of the continent."

SAIW is strengthening its relationship with the Chinese welding industry. Seen here on his recent visit to the SAIW is Dr. Liu, organiser of the Arc Cup, with Sean Blake (left) and Etienne Nell.



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