



SAIW awards NDT and Weld inspection bursaries

During the second and third quarters of 2022, the SAIW conducted competitions and awarded bursaries to four deserving and talented young people. Three regional bursaries valued at R120 000 were won by Lerato Ruth Mokgawa; Marvin Mitchell; and Shaan Mokgwadi; while Izak Van Heerden from Cape Town won an SAIW Welding and Fabrication Inspector Level 1 course, worth R60 000.

On Friday 2 and then again on September 16, the SAIW held open days to give young unemployed bursary candidates the opportunity to explore Non-Destructive Testing (NDT) as a career and to experience a fully immersive tour of the SAIW's world-class facilities.

Attendees who were unemployed with Matric certificates in Grade 12 Maths and Science and who live in Gauteng were invited to bring their CVs along on the day in order to participate in a competitive selection process for a R120 000 NDT bursary – with the winners undergoing full time training in Johannesburg from October.

The open days began with a presentation by Mark Digby, the NDT Training Manager at the SAIW. “NDT, what is it? What will we be doing?” asked Digby.

Non-destructive testing or NDT, he said, is a collection of technique or inspection methods that are used to determine the physical soundness or characteristics of a material, without doing any damage to that

material “Effectively, it is testing something without destroying the thing being tested,” Digby explained.

“NDT is a career for dedicated and hard-working people. You need to be in good physical shape, especially if you are going to inspect petrochemical or power plants and such. Before you can even get into the job you may be put on treadmill for your heart-rate to be measured to prove that you are fit and healthy enough to climb into a plant to do testing,” Digby points out.

“NDT techniques can be easy or more difficult. The easy ones are penetrant testing (PT), visual testing (VT) and magnetic particle testing (MT), while the more difficult ones are radiography (RT) and ultrasonics (UT), and the most difficult of all is eddy-current testing (ET). Most NDT methods are easy to perform, but can be difficult to interpret what is happening on or inside the material,” he noted.

“Integrity is a big thing in NDT. It is very easy to get bullied into making wrong de-

isions out there. An NDT inspector has to stand by his beliefs. We decide if there is a defect in a weld, tank or material and we need to be tough enough to stand up and say when anything is wrong.

“So the question is; does that sound like you?” he asked.

Following Mark Digby's talk potential candidates were split into four groups and taken to visit different areas of the SAIW: The virtual welding machine in Welding School; the submerged arc welding machine in the Welding Technology Centre; ultrasonic (UT) and visual testing (VT) demonstrations in the NDT classrooms; and magnetic testing (MT) in one of the NDT Laboratories.

SAIW has since announced three winners of the Gauteng NDT Bursary. SAIW Executive Director John Tarboton explains: “Initially, only one bursary was offered, but the standard of the entrants was so high it was impossible to choose a clear winner and we felt it was only fair to award three bursaries. So we set about securing funding for an additional two Regional NDT bursaries for Gauteng.”

Some comments from the bursary winners

Lerato Ruth Mokgawa:

“I went to a technical college where I studied mechanical engineering and obtained my N2-N5. I am currently awaiting my N6 certification in mechanical engineering. Upon completion of my studies, I was awarded an apprenticeship at Eskom Rrotek Industries where I trained for four years and I am now a qualified Mechanical Fitter,” she said.



Marvin Mitchell:

“I am a boiler maker by trade and have been in the industry for about 10 years now, having worked with various people who had already done Level 1 and 2 Inspection courses. It has always been my dream to be a quality controller and do NDT inspections.”



After finishing high school in Secunda, Mitchell got an apprenticeship at Steinmuller in 2011 and qualified in 2013. “I have worked on power stations at Sasol Synfuels and at Kusile, then I went into the mining

environment and worked for Balindi Mining at Forzando South. I am now hoping to further my studies, not just through NDT, but I want to branch out to become a Welding practitioner and then a Welding Engineer,” Mitchell said.

Shaan Mokgwadi

is already a red seal welding artisan and was looking to further her education. “I matriculated in 2017 at Khutlo-Tharo Secondary School in Sebokeng. In early 2018, I got a mining learnership and in late December 2018, I left the mining sector for a welding apprenticeship.



“Being a female welder in a male dominated world, you have to prove yourself so much more and doing that is much harder,” she said, adding that her end goal is to start her own company and empower other women to do the same.

Cape Town Region bursary winner: Izak Van Heerden

The SAIW also announced a bursary opportunity for either a Cape Town or a Durban resident on an SAIW Welding and Fabrication Inspector Level 1 course, worth R60 000.

The winner of this SAIW bursary, Izak



A bursary candidate has a go at virtual welding in the SAIW's Practical Welding School.

Van Heerden, has forged a successful start to his career in welding. “I am a qualified welder having received my red seal certificate a few months ago. I grew up in my Dad's workshop. He had a tool room and was one of the country's finest air force tool makers. I've been working for 14 years in the workshop but was fortunate enough to work in industry until very recently, when I



decided to focus on my studies. I have been in the welding industry for eight years, but I have never had the money for the welding inspector course, so when I heard I had won the bursary, I accepted it with both hands,” he says.

“My main goal,” he says “is to become a Level 3 Welding Inspector and my prayer is that there will be another bursary for Level 2. I also have a passion for teaching and my dream is to teach young welders to believe in themselves and become somebody. I would also like to have my own company someday”.

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At an open day at SAIW, NDT bursary candidates look for a weld flaw in a pipe weld using ultrasonic testing (UT).

ISO 3834 certification safe with SAIW

SAIW Certification received its first ISO 3834 accreditation in 2008 through the International Institute of Welding (IIW) and is home to more than a century of collective wisdom and experience. “We are extremely concerned about current irresponsible messaging to the market which can only be seen as designed to induce ‘panic buying,’” warns SAIW's Herman Potgieter.

“Current and imminent audits to ISO 3834:2005 are still valid and SAIW's ISO 3834 clients remain fully compliant with the current ISO 3834 standard for the full 12 months since their last audit,” he assures, adding that all scheduled audits conducted after April 2023 will be to the new ISO 3834: 2021 version, but current SAIW audits already include the changes as for ISO 3834: 2021 compliance.

There has been no fundamental change to the ISO 3834 standard, but rather minor adjustments to the phrasing of certain parts of the document. These newer paragraphs contain requirements that already form part of the SAIW Certification audit

checklists. Companies therefore do not have to undergo a new ISO 3834 audit if they fully comply with current ISO 3834 requirements, and there is also no need for clients to reprint their current certificates.

An unbiased, objective and highly experienced partner

“As the only ISO 3834 certification body recognised by the International Institute of Welding (IIW) as an Authorised Nominated Body for Company Certification (ANBCC) in South Africa, we take market misinformation very seriously. Given our role as the custodian of ISO 3834 certification in South Africa, we remain 100% committed to being an unbiased, objective and balanced partner of choice for our clients' ISO 3834 requirements.

“Another of our key strengths is that as a not-for-profit entity we are founded on the principle of ‘by the industry and for the industry’. SAIW Certification's main goal is to uplift South Africa's welding capabili-

ties and champion the skill of welding by upholding and uplifting standards in the manufacturing and industrial sectors.

SAIW Certification is also able to draw from the collective training and technical expertise of the broader Southern African Institute of Welding in which we operate, and which has been in existence since 1948 as a founder member of the International Institute of Welding (IIW) and which specialises in a variety of welding and NDT related services.

Easing the financial burden of ISO3834 certification

To assist our clients to maintain their ISO 3834 Certification requirements, SAIW has instituted several market-related payment plans to ease the financial burden companies face when keeping up with the annual requirements of ISO 3834 certification.

“Overall, we are committed to upholding ISO 3834 standards in South Africa and we welcome feedback or any questions you might have,” Potgieter assures.

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