



The SAIW 2.0 Transformation Project

SAIW Training and Technical Manager, Confidence Lekoane, highlights the progress being made towards the full implementation of the SAIW 2.0 Renewal Project.

Throughout this year, the SAIW has focused on stabilising day-to-day operations, strengthening the Institute's certification infrastructure, advancing its digitisation strategy, modernising its training and certification offerings, and securing the long-term sustainability of the organisation.

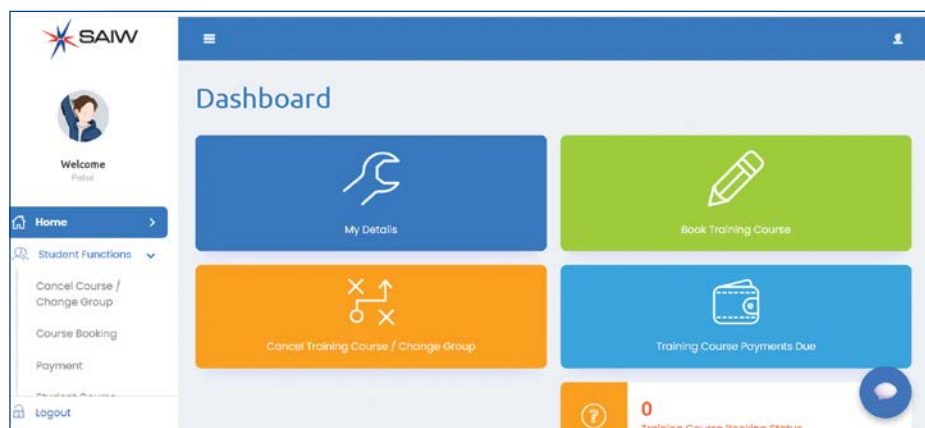
"We have now completed a massive business restructuring process, which has made a significant impact on stabilisation across the organisation. We are not entirely where we want to be yet, but the overwhelming backlog and daily operational pressure have eased considerably," says Lekoane.

She adds that significant progress has been achieved in both company and personnel certification, as well as in the digitisation of several key systems critical to the SAIW's future.

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Digital transformation

The newly launched SAIW Website highlights the comprehensive nature of the SAIW's digital transformation. "We have made excellent progress on the website, which has received very positive feedback," she says.



The completely redesigned SAIW 2.0 website has been designed as a portal for all current and future SAIW members, students and clients to access exactly what they need.

The completely redesigned website is more than just a repository for information and news; it has been designed as a portal for all current and future SAIW members, students and clients to access exactly what they need from their own phones, tablets or computers.

Embedded in the new site is direct access from anywhere to the newly developed cloud-based student management system, along with the online Course Prospectus, which provides searchable information about SAIW course offerings and the delivery calendar for each course. A student wishing to take a course can register with SAIW through a process as simple as registering for any online shopping platform.

Once registered, a course can be booked, and students will instantly receive a system-generated quotation. Work is still being done on resits of examinations, transition exams, and recertification, which we hope will be bookable via this system in the near future to improve customer service and turnaround time.

To enhance training quality and consistency, SAIW has implemented a Learning Management System (LMS) to manage and deliver training. This is a digital platform where students can access learning materials online, while lecturers can upload notes, videos and assignments. Assessments and quizzes can be done on the platform in preparation for examinations. The platform also serves as a centralised communication and announcements platform between lecturers and students.

"We are exploring the possibility of marking exam papers automatically, which



SAIW's Technical and Training manager, Confidence Lekoane.

is not only faster – potentially within minutes of having completed an exam – but it can also improve marking consistency and reduce bias," she explains.

Most importantly, SAIW is committed to ensuring dramatic improvement in the time between exam completion and the release of results, one of the Institute's biggest customer-service priorities," Lekoane assures *African Fusion*.

Also in the development pipeline is a system to compile examination questions for all the courses offered. In this regard, Artificial Intelligence (AI) can help to ensure consistent examination standards year to year and optimise language use to better suit the broad range of students who do not speak English as their first language.

This innovation positions SAIW at the forefront of modern assessment best practice and aligns with international expectations for training and certification bodies.

Personnel and Company Certification

The development of Personnel and Company Certifications is underway. The Certification infrastructure has been updated, and a new filing infrastructure has been installed.

For ISO 3834 Company Certification, SAIW has introduced the digital auditing System, Weldex, which can manage all aspects of ISO 3834, from welder qualifications to quality management, eliminating paperwork and offering certified companies real-time insights into their operations. Integrating this purpose-developed and proven system into the ISO 3834 Certification offering meets a core aim of delivering affordable operational excellence to the South African fabrication industry, while fulfilling the SAIW's core mandate of

driving up quality standards.

The Weldex system provides a comprehensive digital solution, from preparation before an audit to a paperless auditing process that can be conducted via a tablet or laptop. "This reduces complexity, improves the company experience and makes ISO 3834 certification more affordable and accessible," she assures.

The National Personnel Certification databases of accredited persons, which the SAIW manages on behalf of the SAQCC for Competent persons (CP), Inspectors of Pressurised Equipment (IPE), NDT personnel and IIW-accredited welding technologists and welding engineers, are also being digitised and modernised to make them easy to access and automatically updated.

Training and Technical success.

Since July, Lekoane reports, the number of students enrolled in SAIW Welding Coordination, Welding Inspection, Practical Welding, NDT, Competent Persons, and all of ASME, AWS, and other training courses has increased again.

"We have recently developed an Introduction to Laser Welding training course, which focuses on the fundamentals of laser technology, laser safety, suitable applications, and hands-on practical laser welding. Laser welding is particularly well-suited to thin-sheet welding, making it ideal for those entering or already involved in the automotive industry. The course has now been added to the prospectus and is available from 2026.

On the technical side, she says the SAIW Materials Testing Laboratory is ready and available to assist clients and suppliers with approvals, welding procedures and any other testing work. "In addition, consultants are on hand to add value to projects and businesses through productivity and quality improvement, problem solving, development work and investigation services.

Build national capacity in advanced NDT methods.

Non-destructive testing (NDT) is crucial for ensuring the safety of critical components and systems in nuclear facilities, as well as for enhancing the quality of industrial products and ensuring the safe operation of equipment and plants, including metallic and concrete structures and constructions.

South Africa is embarking on expanding its nuclear programme, which will see the construction of a multipurpose research reactor and 2 500 MW of nuclear generation capacity, which will require critical skills development, such as advanced NDT



Ray Turner, a global specialist in the ToFD NDT method, presents an 'expert' training course to the SAIW team of specialists: Front from left: Lesego Mocumi, Ray Turner, Mark Digby. Back row: Mark du Plessis and Jan Cowan.



The SAIW Materials Testing Laboratory Team – comprising Kegomoditswe Dire, Metallurgical Technician; Ruman Mawela, Metallurgical Laboratory Assistant; and Walter Mahlangu, Laboratory Assistant – is ready and available to assist clients and suppliers with approvals, welding procedures, and any other testing work.

techniques, to ensure the programme can be safely and successfully implemented.

"In view of South Africa's relatively limited NDT capabilities, advanced NDT methods, including Phased Array Ultrasonic Testing (PAUT) and Time of Flight Diffraction (ToFD), are becoming increasingly important in industry as they improve the probability of flaw detection and dramatically increase the reliability of inspection results. To address this national skills gap, the International Atomic Energy Agency (IAEA) is providing support to build the capacity required for these advanced methods," explains SAIW Technical and Training Manager, Confidence Lekoane. "As part of this support, the SAIW, through its cooperation with NECSA and the IAEA, is receiving specialised train-the-trainer programmes to enhance internal capability. The overseas expert for ToFD, Ray Turner, has already completed the first phase of training with the SAIW NDT training and

examination team: Mark Digby, Jan Cowan, Clayton Calvert, and experienced NDT technicians Mark du Plessis and Lesego Mocumi. The PAUT training is scheduled for early next year," she adds.

With this growing capability, the SAIW intends to offer these advanced NDT courses independently in the near future," she tells *African Fusion*.

"We continue to strive to help the welding, fabrication and engineering industries better meet the challenges they currently face, and we are now receiving a great deal of positive feedback from our students and the public regarding the excellent progress we are making. We are inviting anyone wishing to make suggestions or comments to go to our new website, where we now have a communication channel for input on any aspect of the SAIW's service delivery or developmental progress," Confidence Lekoane concludes.

<https://www.saiw.co.za>

