

Modular and virtual training opportunities

African Fusion talks to SAIW executive director, John Tarboton, about the need for a change in the way training courses are delivered to make qualifications more easily accessible to students and more convenient and affordable for employers.

“Back in 1979, the SAIW consisted of single office in Braamfontein managed by Chris Smallbone and his secretary. That was it. Chris slowly built up the Institute, devel-

oping services and courses and getting student numbers up until it became viable to build our City West premises in Johannesburg.

“In those early days, he believed that what industry most needed was short and very specific training, such as one day courses on Welding Procedure Qualifications, for example. So Chris developed collections of training course modules that could be accumulated towards different professional qualifications. Chris, himself a training consultant, would go into companies to present these short courses, typically to four or five employees.

“This was in 80s and, in spite of the very negative economic impacts of the political climate – PW Botha’s Rubicon speech, sanctions, a freefalling economy and runaway inflation – Chris Smallbone managed to generate surpluses and growth for the SAIW for every year of that period, all the way into the 1990s,” Tarboton informs *African Fusion*.

Following his departure to ‘rescue’ Australia’s WTIA, Richard Dickinson took over, Tarboton recalls. “I sat on the training and technology committee representing Columbus Stainless at that time and, with Dickinson, we began to streamline the production of students and the training programmes. So the SAIW became a welding school, where students were able to study full time and leave with qualifications. In the mid-2000s, Jim Guild took over the SAIW and he grew SAIW training to the point where the SAIW was training and qualifying some 2 600 students every year,” he continues.

But while this enabled SAIW to meet the welding industry’s growing training needs, the flexibility of the modular approach was largely lost and employers simply had to fit in with SAIW’s relatively rigid training schedules.

Advancing to current times, Tarboton points out that student numbers at the SAIW, while hit particularly hard by the

COVID pandemic, have been in decline for several years. The rise of online and virtual learning options associated with the pandemic, however, are driving a complete rethink of training delivery options.

“Recently, I have been talking to fabricators about re-modularising our courses. One idea is to again do shorter courses of one to five days, followed by a class test, after which a student can return to the workplace. And if it takes two or three years to complete a full course, such as a Level 1 Inspectors qualification, for example, then that is fine.

“This model will help, in particular, privately funded individuals who will no longer have to save up based on the full complement of training required for qualification. A two-day module might cost R4 000, while a full Level 1 Inspectors course will be closer to R50 000. In addition, even if students do not complete the qualification, each completed module adds value to his or her usefulness in the workplace,” he explains.

“What fabricators are now telling me is that, although there is still a dire need for training, the slowdown has forced them to cut back on staff, which leaves a shortage of people available to do the work. During a shutdown, for example, or in the event of an unscheduled emergency, it is often not possible to release staff for training for the weeks scheduled by SAIW.

“Fabricators need to be offered the flexibility to send their people for training when it best suits the work schedules. So the candidates need to be able to miss a module and then pick it up at a more convenient time. This means the modules required for a qualification need to be more independent of one other so they do not have to be completed in a rigid sequence.

“Above all, we need to find ways of minimising the amount of time-at-work interference so fabrication companies do not have to sacrifice income-generating work priorities to accommodate the training needs of their staff,” Tarboton points out.

“One Middleburg fabricator told me that, in terms of training costs, it wasn’t the course fees that were crippling for an

employer, it was the cost of not having the employee at work; and then having to pay for his or her accommodation; the per diem sustenance allowance, and the transportation costs there and back. These costs make away-training over several days very expensive for employees. With the modular approach, there is much more flexibility in terms of arranging modules, or even days within a module, into those that can be delivered virtually and those that require a physical presence,” he adds.

Any 100% theoretical module can easily be done via live virtual contact or remotely online, saving on accommodation, travel and sustenance costs. Candidates can go to work as normal and do the course from their boardrooms or offices. They can start the course after morning meetings and, in an emergency, they are immediately on hand to leave or pause the training to deal with a crisis.

“Fabricators are telling us that if we get modularisation right, the demand for training is likely to be strong, which would make the SAIW much more robust and viable going forward,” he suggests.

Citing a recent success, Tarboton tells of the fully reworked 5-day Welding Appreciation for Engineers course, which was transformed into four 2-hour sessions delivered as webinars in four consecutive afternoons. “On speaking to people who attended, we found that some had logged in from their boardrooms and told us that relevant welding people had been gathered together to watch as a team.

“This is a CPD-based course that isn’t part of a bigger qualification, but from a position of marketing the SAIW services on offer to fabrication engineers, its excellent, as it deals with welding, NDT, laboratory services, welding procedure development, inspection, weld quality management and a whole lot more.

“And they loved it. The Net Promoter Score® (NPS®) from the feedback was at 74% and, from the two webinar-based courses delivered, we generated 77 leads to follow up,” he notes.

Describing the webinar-based delivery technology, Tarboton says the idea was to keep the seminar as near as possible to a traditional auditorium presentation. “We have set up a high quality camera in our boardroom, along with a whiteboard to broadcast webinars. We have also invested in professional quality lapel mics for the lectures to wear

to ensure high quality sound no matter where they are in the room, and we can share slides, PowerPoint presentations, pdfs and videos very easily.

“Our lecturers are already comfortable with the technology. It’s also live, so people can ask questions and talk directly to the presenters as if in a classroom. It works very well,” he adds.

“The technology is ideal for broader use to deliver virtual training which, he points out, is different from online learning. Virtual learning is equivalent to face-to-face classroom study with respect to IIW programmes rules,” Tarboton notes.

Already planned is the delivery of IIW IWP training to 100 Ethiopian welding practitioners so as to overcome currently imposed international travel

bans. While some face-to-face practical training will be required, all of the theoretical content of the IIW programme will be delivered to trainee welders in Ethiopia from the SAIW premises in City West.

“We must do something differently if we are to reverse the downward spiral in student numbers. And the SAIW was built on the idea of modular training, so it feels right to adopt this approach again. We aim to retain every aspect of value in our qualifications, but to change the delivery sequences and the style to better suit industry’s modern and lean needs.

“In addition, we have the power of modern virtual technologies to make course delivery more flexible and more cost effective than ever,” he concludes.

SAIW Robotic Welding Operators course

SAIW’s new Robotic Welding Operators training course has been designed to give candidates the necessary theoretical and practical knowledge on welding technology by equipping them with the skills to manage all aspects of a robotic welding operation, including design and programming of the welding task, safety and troubleshooting of the welding operation.

This course serves as a foundation for more advanced robotic training by SAIW partners.

Topics to be covered include: Safety around the robot; Robotic components; Powering up and Jogging the manipulator; Creating programmes; Touch-up of

programmed points; IO interfacing; Reset errors; and Making back-ups of welding programmes

Candidates are expected to have a qualification in GMAW (MIG/MAG) welding in both flat and horizontal welding positions, but candidates who not meet this access condition can undertake an additional one-week practical training course at the SAIW prior to commencing the Robotic Welding Operators course.

Interested parties are invited to contact Course Administration at SAIW for more details.

info@saiw.co.za
+27 (11) 298 2100



SAIW’s new Robotic Welding Operators training course will be conducted by Valencia Hendricks, with only two candidates being trained at any one time to maximise the amount of hands-on time students will have with the robot welder.