

SAIW helps advance welder training in Ethiopia

The SAIW has entered into an agreement with the Welding Training and Technology Centre (WTTC) in Ethiopia to help advance the welding skills across all nine provinces of the country. Herman Potgieter reports.

Ethiopia's Welding Training and Technology Centre (WTTC), which used to be called the Centre of Excellence for Engineering (CEE), was established by the Ministry of Capacity Building (MoCB) in Ethiopia to overcome welding-related productivity, quality and competitiveness problems in the manufacturing sector. It was set up to service the national need for skills in the metalworking, manufacturing and construction fields.

"For the past few years, Ethiopia, with assistance from SAIW, has been conducting welding training and certification through its TVET centres, applying IIW's welder training guidelines on SMAW, GMAW, GTAW and oxy-fuel welding. The Centre is currently working towards final IIW accreditation as an Approved Training Body (ATB) for the delivery of these courses," SAIW's Herman Potgieter tells African Fusion.

Appointed by the International Institute of Welding (IIW) as an Authorised Nominated Body (ANB), SAIW Certification is able to approve training organisations to

present IIW courses, conduct examinations and issue IIW diplomas. "We are playing two key roles in helping to advance the training standards of the WTTC. First, we are helping to train the personnel who will run the centre. Second, which was the key reason for my recent visit, we have started the process of approving the WTTC as an ATB in its own right," he adds.

But these are only first steps.

"Our engagement actually began several years ago when five Ethiopians came to the SAIW in South Africa to complete the International Welding Inspector comprehensive course with us. These guys had already been certified as International Welding Engineers through the German Institute of Welding (GSI SLV) and they will be heading up a nationwide Ethiopian training initiative from the WTTC," he continues.

The demand for skilled fillet, plate and tube welders in Ethiopia, according to the country's Growth and Transformation Plan (GTP), was estimated to be 4 000 welders by 2021, while 10 000 are thought to be needed

by 2025 (GTP III 2025). "Covid has delayed everything, though, so we are having to catch up. WTTC has preliminary authorisation status from the IIW, which means they can deliver IIW training courses in the country, but can't yet issue any certificates," says Potgieter.

Recent progress is significant, though. "Shelton Zichawo, Willie Williams and David Makgoge from our training department have recently been up there to help with a train-the-trainers course based on the IIW International Welding Practitioner (IWP) programmes that the 89 Ethiopians on the



course are going to deliver. These guys came from provinces all over Ethiopia and will be responsible for taking the IWP programmes back to their provinces in an effort to feed growing skills requirements," Potgieter notes.

Because of the very high unemployment rates in Ethiopia, Potgieter points out, the welding recruits are mostly very highly qualified people, some with Master degrees in engineering. The Government is now determined to drive this unemployment rate down, with welding as the key focus.

"The train-the-trainer course was followed by my visit in June, for a meeting with a high-level delegation, including the Minister of Labour and Skills – who reports directly to the Ethiopian Prime Minister – and the Director General of Education," Potgieter informs African Fusion.

In his presentation to the Ethiopian delegation, he noted that a key mission of the SAIW is to deliver and promote world class training, qualification and certification programmes and to be a leading point of contact for international cooperation; a resource for information transfer; and to promote best-practice welding technology.

"Following the meetings, my task was to audit, accredit and certify the WTTC facility in Addis Ababa as the first Authorised Training Body in Ethiopia," he continues. "In terms of the agreement with the SAIW, we as the ANB have been invited to overlook the certification process and the certification of students in Ethiopia. Every welding school and every welder will be registered on the SAIW's national register, which has a unique IIW identification number. Each certified ATB and each successful welding student will get a certificate with the WTTC logo and the SAIW logo printed on it, with the head of the training department of the different ATBs across Ethiopia signing the certificates for their students."

"Before we can do this, though, we need to extend the scope of our ANB status to include countries outside of South Africa. And as soon as this has been approved, we will be able to begin the processes of approving personnel and training facilities across Ethiopia."

The WTTC building which currently being upgraded, he continues, is a remarkable facility: "This Centre in Addis Ababa has

63 multi-process SMAW, GMAW and GTAW welding bays; another 30 bays for SMAW and about 10 bays for other workshop activities such as oxy-fuel cutting/welding and grinding. This makes a great starting point for establishing a strong welding sector in Ethiopia," Potgieter says.

"We are at the start of a five year programme with the WTTC, with the ultimate goal that the Centre becomes an IIW Ac-

credited Nominating Body in its own right, completely independent of the SAIW. More importantly, though, through training programmes such as these we hope that welding can become a springboard to a rejuvenated African economy with manufacturing as the bedrock and good jobs and low unemployment the ultimate prize," he concludes.

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NEMS2022 initiative launched at SAIW

On the 24th of June 2022, SAIW hosted a delegation of approximately 60 delegates for the launch of this year's Nuclear Energy Management Schools programme (NEMS2022). The delegation was led by AFRA National Coordinator, Lerato Makgae; along with Ian Gordon-Snr, an IAEA Knowledge Management Specialist and Clive Mokoena, programme manager for Nuclear Education and Training at Necsa.

"The SAIW is the Regional Designated Centre responsible for NDT and has been involved with the International Atomic Energy Agency (IAEA) since 2000 as part of the African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA)," explains AFRA National Coordinator, Lerato Makgae.

The IAEA has developed the Nuclear Energy Management NEMS programme for professionals working in the nuclear sector. "Managerial and technical competencies are necessary to support national nuclear energy strategies and implementations across the continent. So the IAEA has been organising Nuclear Energy Management and Nuclear Knowledge Management Schools with different partners since 2010, with these being established regionally in cooperation with a local university or nuclear organisation acting as host," she continues.

To accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world, one of the main functions of the IAEA – in accordance with its Statute (Article II) – is to assist member states with capacity building: sharing knowledge and expertise and assisting with the procurement of equipment. "The IAEA works with its member states to foster the role of nuclear science and technology applications in support of sustainable human development.

"South Africa is a member state and the NEMS programme focuses on the managerial and technical competencies that

are required to support national nuclear energy strategies. It is particularly appropriate for young professionals in member states that intend to develop or are in the process of embarking on a nuclear development programme," she adds.

The Department of Mineral Resources and Energy (DMRE) is the key stakeholder and nuclear sector champion for the implementation of peaceful uses of Nuclear Science and Technology Applications through the National Liaison Office (NLO) in South Africa. It plays a pivotal role in providing valuable lessons and expertise to the continent.

"The NLO is responsible for implementation of the IAEA's Technical Cooperation Programmes – including the AFRA Programme – and for promoting the utilisation of nuclear technology by interfacing with regional and inter-regional organisations in the nuclear field: such as the Nuclear Energy Management Schools," Makgae notes.

The NEMS2022 launch at the SAIW saw participants from 12 countries on the continent, along with IAEA Staff Members from Vienna in Austria. Countries represented included Algeria, Egypt, Ethiopia, Ghana, Kenya, Morocco, Niger, Rwanda, Senegal, Sudan, Uganda and Zambia.

SAIW, as the AFRA Anglophone Regional Designated Centre (RDC) for NDT, has been involved in:

- Direct training of more than 160 NDT Personnel in four methods up to Level 3 from more than 17 English speaking countries in Africa.
- Eleven expert Workshops since Oct 2000.
- Fourteen Scientific Missions by SAIW Personnel.
- Setting up, to date, three Approved Training Bodies (ATBs) in Africa – Cameroon; Kenya and Sudan.

"Based on the interest shown at the NEMS2022 event, there may yet be even closer cooperation between the Institute and other AFRA member states," Makgae concludes.



At the NEM2022 launch, from left, are: Ian Gordon Senior, Knowledge Management Specialist, IAEA; Clive Mokoena, programme manager, Necsa; Lerato Makgae, AFRA National Coordinator; Joseph Zinyana, SAIW Board President; John Tarboton, SAIW Executive Director.



Approximately 60 delegates attended the seminar of the Nuclear Energy Management School programme (NEMS2022) at the SAIW.