

# Aerospace Industry Support Initiative invests in tomorrow's experts

Local companies and small, micro and medium enterprises (SMMEs) play a big role in combating unemployment and developing the country's economy. The Aerospace Industry Support Initiative (AISI) assists local companies and SMMEs to promote the capabilities of South African aerospace, defence, marine and advanced manufacturing sectors. The AISI is an initiative of the Department of Trade, Industry and Competition (**the dtic**) and is hosted and managed by the Council for Scientific and Industrial Research (CSIR). Through the AISI intervention, the initiatives' beneficiaries provide employment opportunities to young people, as well as training in specialist areas and offer support to young entrepreneurs.

#### Meet the AISI beneficiaries who are changing the game



### Odine Brown - Welder

Location: Saldanha Bay, Western Cape

Qualification: Redseal, certified Welding Procedure Specification (WPS), Procedure Qualification Record

(PQR), Pipe Coded

Company name: AR Jones Engineering

Odine Brown makes inroads into a traditionally male dominated industry. Brown's career dreams were realised when she joined AR Jones Engineering in July 2022 as a welding apprentice. She is one of 10 welders who were coded on the certified WPS and PQR in a project supported by the AISI. After completing the coding tests on WPS and PQR, AR Jones Engineering offered her a position as a red seal, double coded and pipe coded welder. Brown says, "I feel privileged to have been

granted the opportunity to take part in the project supported by the AISI. I want to thank **the dtic**, through the AISI, for the exposure." She continues, "I was surely upskilled through the project and a job opportunity was created for me at AR Jones Engineering."

Brown's message to young people is to never lose hope and to keep knocking – a door shall open for you.

## Edmund Nhlanhla Moyo - Co-founder, Chief Financial Officer, electrical engineer



Location: Johannesburg, Gauteng

Qualification: National Diploma (Electrical Engineering) and BEng Tech (Hons) (Electrical

Engineering)

Company name: Sentian Aerospace

Moyo and his engineering friends were inspired to establish a company, Sentian Aeropsace, that designs and manufactures high-performance unmanned aerial vehicles (UAV). With support from **the dtic**, Sentian Aerospace is currently developing a vertical take-off and landing platform for surveillance applications.

As an engineer, Moyo's role on the project includes working with a team of electrical and electronic engineers to design and develop the entire wiring

and control system for the UAV. As a co-founder of the award winning Sentian Aerospace, Moyo is proud of what the team has accomplished, as well as the skills and capabilities he has gained as a result of the project and support from **the dtic**. "We have benefitted immensely from the support, and we would not be where we are if it wasn't for it. We are appreciative of the financial support that contributed immensely to the development and advancement of Sentian Aerospace.

# Nigel Nkundhlande - Composites and design engineer



Location: Johannesburg, Gauteng

Qualification: BSc (Aeronautical Engineering)

Company name: Sentian Aerospace

Nkundhlande is a co-founder of Sentian Aerospace. He is a skilled computer numerical control machine operator who creates moulds for UAVs. One of Nkundhlande's career milestones was when he and his team worked on a project supported by the AISI to create a 7 m wingspan UAV capable of vertical take-off and landing. The UAV will be used for surveillance, carrying a 20 kg payload and will have the capability to carry sensors that can be used for data capture and analysis.

"AISI has been a great enabler for us at Sentian Aerospace. The initiative made it possible for a team of black engineers to enter the design and manufacturing space in the aviation sector. The impact of AISI has allowed us to hone our entrepreneurial skills and hopefully one day we will be job creators in South Africa. My end goal is to also help empower my fellow youth and grow the science and technology sector of South Africa. I would like to thank **the dtic** and AISI for all their support, it is truly appreciated."







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## Bulelani Mathe - Boilermaker apprentice

Location: Nongoma, KwaZulu-Natal

Qualification: National Certificate (Engineering & Related Design) Level 4

Company name: Sandock Astral Shipyards

Mathe's qualification became a steppingstone for him to pursue his dream job as a boilermaker. He is currently employed as boilermaker apprentice at Sandock Astral Shipyards (SAS), one of the largest shipyards in southern Africa. Mathe is currently acquiring skills in non-destructive testing (NDT). The NDT training is possible through support offered by AISI, which is **the dtic** initiative ."I feel highly honoured and grateful to receive such a great life changing opportunity. I sincerely thank **the dtic** and AISI for this opportunity. The support we received improved the company's production

by enhancing our NDT skills and we are now able to conduct internal tests on different materials and welds before we outsource these tasks for external testing. We are looking forward to receiving more projects that will enable us to enhance our skills and compete with the best NDT technicians globally and prove that South Africa is capable of producing quality personnel."

Mathe's words of encouragement to young people: "Equip yourself with practical skills, start with what you have."



#### Mnelisi Zondi - Boilermaker apprentice

Location: Yellowwood Park, KwaZulu-Natal

Qualification: Non-destructive testing and Radiography testing and magnetic particle testing Level 2

Company name: SAS

Zondi is currently pursuing his dream career at SAS, one of southern Africa's largest shipyards. Zondi 's passion of becoming an exceptional boilermaker grew when he started to attend NDT training offered to SAS employees. The NDT training was possible through support offered by **the dtic** initiative, the AISI. NDT is a method used by industries to evaluate material properties without permanently compromising the material's composition.

His role at SAS includes material mark off, oxy-acetylene cutting, shielded metal arc welding, rolling and bending of steel, structural steel and pipe fabrication, as well as pipe, cone and hopper developments. "Thank you so much to **the dtic** and AISI for the opportunity, I am very excited about this journey and I'm looking forward to more opportunities," says Zondi

His advice to young people: "Do not give up, your time is just around the corner. Do not wait for a job try other legal ways of making money."

# Mphareng Madihlaba - Machine operator (Continuously Transposed Conductor department)



Location: Sekhukhune, Limpopo

Qualification: Bachelor of Science (Chemical Engineering)

Company name: Wilec

Madihlaba joined Wilec in 2021 as a production trainee and worked on a project supported by the AISI, an initiative of **the dtic**. She completed her training on the manufacturing of continuously transposed copper and was later absorbed as the operator in the department. Madihlaba expresses gratitude for the support she has received through **the dtic**. "As a young

engineering graduate trying to head-start my career, I am very grateful for the opportunity. I feel empowered, fortunate and blessed to have been part of the project (the first of its kind in the country). Being part of this project enabled me to expand my theoretical skills and prove my hard and soft skills to gain a competitive advantage in this field."



