

AI domain specific skills

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AI for Natural Language
Processing

AI for Statistical Data

INTEL LAUNCHES FIRST EVER ARTIFICIAL INTELLIGENCE LAB IN AFRICA AT ORBIT COLLEGE, BRITS CAMPUS

ORBIT TVET College has become the first institution in Africa to roll out Intel's Artificial Intelligence (AI) Future Workforce Programme. The launch, which took place on 20 July 2022, was a collaborative effort between Intel, the Department of Higher Education & Training (DHET) and the College. It also saw the opening of a new AI laboratory at Brits Campus.

The aim of the programme is to inspire young students to explore opportunities in artificial intelligence and spark interest in developing solutions, once they get the knowhow. Participants will gain practical skills in programming and coding, algorithm and computational thinking, social skills, AI ethics, critical thinking and problem-solving skills, systems mapping and solution building. Upon successful completion of the course, students will receive certificates of competency.

The College was honoured to have at the event, Intel Vice President Sales and Marketing and General Manager EMEA Territory, Mr Maurits Tichelman who shared that through the programme, South Africa can start training the next generation of future technologists and innovators, who will contribute to the President Cyril Ramaphosa's Fourth Industrial Revolution (4IR) mandate. "AI is one of the technology superpowers driving growth, innovation, and job creation in every aspect of society. It is therefore an honour for Intel to be able to contribute to the development of artificial intelligence skills at ORBIT College," Mr Tichelman said. He added that this programme is the first of its kind to be launched in South Africa and on the African continent, with ORBIT College serving as a "beacon" for the country's TVET institutions. So far, Intel officials and facilitators from different parts of the world, have trained twelve Master Coaches at the College. These coaches were awarded certificates at the event; and of the twelve, two have already been poached by industry.

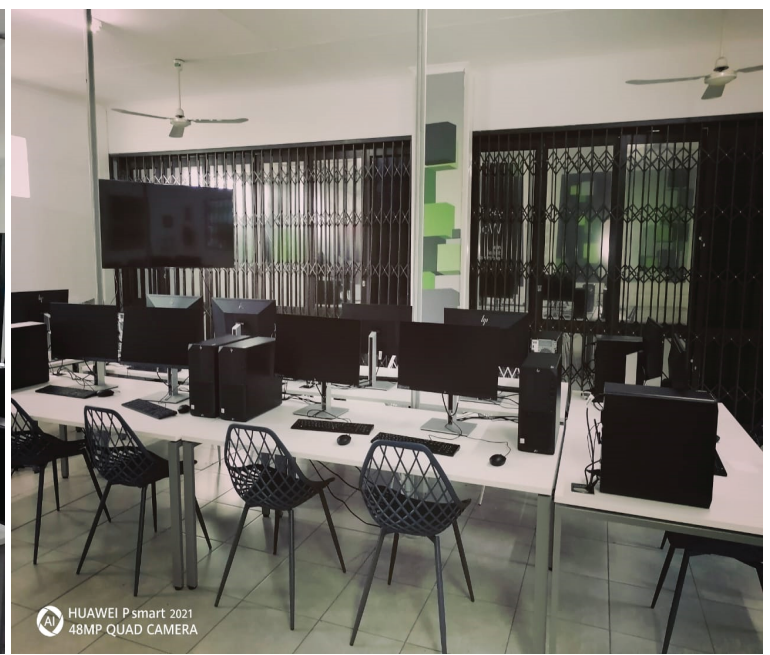
A delighted Dr Nick Balkrishen, Regional Manager for North West and Mpumalanga TVET and CET Colleges explained that the programme is an appetiser AI course which provides a broad overview of what AI is. "There are other steps of the training programme and we feel this will empower the students greatly. If they have an interest in AI, then they will take all the steps in the training programme that are being offered to grow their interests. As a region, we want to extend this programme to the six TVET colleges in the region. It's starting out at ORBIT, but we want to extend it to the other five Colleges, as we want all of our colleges and students to benefit." Dr Balkrishen added.



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AI (ARTIFICIAL INTELLIGENCE) FOR FUTURE WORKFORCE PROGRAMME

The Artificial Intelligence (AI) programme that is currently rolled out at Brits Campus in partnership with INTEL, is aimed at vocational skilling of youth for future workforce. The skilling journey comprises five stages, offered across 39 modules (212 – 216hours) during which youth are equipped with relevant skills. These stages are focused on Awareness during which a general awareness of AI is gained and Foundation where a foundational technical and career growth skills are built. This is followed by the Experience stage where students are exposed to working with specific AI domains and technologies, after which the Capstone stage is offered. This stage is where students get hands-on as they build AI solutions based on the knowledge they have gained, preparing them for apprenticeship. Last but certainly not least, students participate in the Practical Training stage whereby they gain exposure to real world challenges and build solutions with industrial impact.

The AI Lab commenced with training of the first group of students in October 2022. As part of the learning programme students are expected to identify a societal problem and through the AI programme find a solution which will benefit the community at large. Online applications for this exciting programme are still open and interested parties may apply.



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ORBIT COLLEGE AI STUDENTS SHINE AT AI GLOBAL IMPACT FESTIVAL 2023

Intel is a world-renowned leader in the design and manufacturing of essential technologies that power the cloud in an increasingly smart and connected world. The company's commitment to make technology inclusive and to expand digital readiness for all is captured in their purpose-statement, stating that their aim is to create world-changing technology that improves the life of every person on the planet.

One Intel-initiative that serves this very purpose is the annual AI Global Impact Festival that provides opportunities and platforms for future innovators to learn, showcase and celebrate the impact of AI innovations in their lives by working to solve real-world challenges, using artificial intelligence (AI) with the support of policymakers and academic leaders. This year, students from 26 countries around the globe participated in the Festival under the theme, "Enriching Lives with AI Innovation". The competition focused on building digital readiness for all students and celebrating AI innovations that drive inclusion, accessibility and responsible impact.

Students competed in two respective age groups (13-18 years and 18+ years) in the category AI Impact Creators aimed at presenting innovative, social impact AI projects. Being the only institution in Africa that boasts an AI programme offered in partnership with Intel, ORBIT TVET College entered the student competition with two exclusive projects. In doing so, the College proudly represented the entire Africa in this global competition. The project, Asset Management System was presented by ORBIT College Brits Campus students Johannes Mokami, Elisa Mosesenyane and Koketse Sikhu. The project addressed the problem of financial loss occurring due to unmonitored movement of assets by developing algorithms that monitor the movement of assets.

The second project, Stress Detect was presented by Justice Langeni, Lethogonolo Matlaela and Lebogang Mpete and addressed the challenge of distress among communities and college students due to the socio-economic status of the Bojanala District. The group offered a solution by developing algorithms that are able to identify stress levels at an early stage which, in turn enables appropriate referrals. The ORBIT students were up against competitors of seventeen other countries and an incredible total of almost 1000 AI projects in the preliminary round. Projects were judged on how well they relate to and address potential risks and winners' projects were also set to undergo an ethics audit by Intel's Responsible AI team, inspired by the protocol followed for every company AI project.

Both ORBIT College projects were successful in reaching the final shortlist of 75 projects in the category. Upon concluding the final adjudication, it was the Stress Detect project of Justice, Lethogonolo and Lebogang that flew the College high by being awarded third place as country/region winners in the AI Impact Creators (18+ years) category, making them the recipients of an incredible \$1000. What makes this achievement even more remarkable is the fact that the AI programme in partnership with Intel was only launched at Brits Campus as a pilot programme in July 2022. In just over a year, ORBIT College managed to not only participate in the AI field at global level, but also managed to attain an award-winning third place! ORBIT College is immensely proud of this remarkable achievement by our AI students from Brits Campus!

On 26 November the winners travelled to Poland to attend the awards ceremony where their bronze medal was officially handed over. They were accompanied by Dr Nick Balkrishen, Regional Manager North West and Mpumalanga TVET and CET Colleges, Mr Dika Mokoena, Principal of ORBIT College and Ms Tebogong Tlhopile, Brits Campus Manager.

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