

CESA: Engineering Job Shadowing Initiative and Poster Competition

“A Day in the Life of a Consulting Engineer”



***“I believe that education is all about being excited about something. Seeing passion and enthusiasm helps push an educational message.”
- Steve Irwin [The Crocodile Hunter]***

The young professionals of Nyeleti Consulting embarked on a quest to bring life to the word of the late Steve Irwin by offering a group of learners a chance to experience first-hand what engineering is all about. The dilemma is that in a country where there are so many young people in need of career guidance – how does one choose which learners to offer such an opportunity?

In an effort to reach as many learners as possible, the core group of 13 young professionals identified four schools who would benefit from receiving visits from Nyeleti Consulting. Between 15 and 17 July 2019 teams of young professionals visited the following schools:

- Bokgoni Technical School (Atteridgeville Area)
- Ivory Park Secondary (Thembisa Area)
- Kaalfontein High School (Thembisa Area)
- Mahube Valley Secondary School (Mamelodi Area)

The visits kicked off with a 30 minute career presentation to learners between Gr.10 and Gr.12. As Nyeleti Consulting specialises in civil engineering consulting services the interactive talks were largely focussed on civil engineering, touching on engineering in general and other built environment careers. At the heart of the presentations lay the fact that the young professionals from Nyeleti Consulting was conveying their passion and encouraging students to work hard to achieve high marks in maths and science. Through the career talks the team engaged with more than 700 learners, spread across the four schools.

Following the career presentation, it was game-on for the Gr.12 learners as they were divided into groups and given the opportunity to tackle the Aqualibrium water competition game. The aim of this game is to build a water network using plastic pipes and connectors which provides equal flow rates to three separate containers. (See <http://www.aqualibriumcompetition.net/joomla/> for more information.) This game offered learners a hands-on experience of engineering problem solving, giving them a chance to apply critical thinking while having fun. But, despite the fun element the stakes were high as top performers from each school would be invited to the Job Shadow day and site visit. Over the course of the week more than 300 learners participated in the Aqualibrium water competition game.

On 24 July 2019, 58 learners representing the top performing groups from each of the four schools were taken on a site visit to Watt Interchange, a construction project where Nyeleti Consulting is responsible for construction monitoring. The construction of Watt Interchange encompasses a broad range of civil engineering elements allowing the learners exposure to elements of municipal services, structural, transportation, geometric and geotechnical engineering.

A large group of Nyeleti Consulting's young engineers, representing these various disciplines, accompanied the learners on the visit and while showing them around created opportunities for the learners to engage with the engineers, ask questions and learn what the job is all about.

The learners received a safety induction before being shown around the site. The importance of safety during construction has made a huge impression on the learners as that was one of the things almost every learner mentioned their testimony following the site visit. Following the safety induction they were shown around the site and various aspects of the construction were explained to them. After all the hours of concentrating hard the learners were treated to a braai.

Testimonials from Learners

"In short, Nyeleti Consulting has helped consolidate my mind to think broader for more career choices."

- Ofentse Maltji

"Disruptions on the construction site can prolong the construction process and that makes the project cost more."

- Moeketsi Mokgoa

"I want to thank Mashudu Dama for giving us information about safety before going to the construction site, because we didn't know anything."

- Prudence Mongwai

"It's a privilege for me to have had such an experience. I hope you also do that for the upcoming generation. Hard work pays off even if it takes time!"

- Lesedi Matlala

"I appreciate all the civil engineers that were there, because they have passion for their work."

- Reseletso Mokgehle

"From the site I learnt that engineers are almost responsible for everything around us, starting with the roads we drive on. I realised that mathematics is applied in real life and it is very important in civil engineering infrastructure fields and any other engineering fields."

- Khethiwe Khoza

"I never thought of Civil Engineering, but after visiting a site I considered it as one of my choices."

- Eva Matshoga

"On that day [of the site visit] I learnt a lot of new thing things and Nyeleti made sure that it was not only educational but also fun."

- Kenosi Sebopa

"I've come across a lot of bridges, crossed a lot of roads but was never aware of how they were built. This trip brought everything to light."

- Tshegofatso Nkwe



Nyeleti Consulting's Job Shadow Initiative at a Glance

- *Young Professionals Involved: 13*
 - *Schools visited: 4*
 - *Learners influenced: More than 700*
 - *Learners participating in Aqualibrium: More than 300*
 - *Learners taken on site visit: 58*
 - *Amount of fun and learning: Endless!*
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The Greek Essayist, Plutarch said:

“The mind is not a vessel to be filled, but a fire to be ignited.”

Nothing sums up the intention behind the career talks and job shadow day initiative better than this quotation. Although the young professionals took great pride in sharing information about their profession. The aim was to encourage students to be curious, critical thinking and hardworking during their school career, which will empower them to pursue a career in engineering.