



The AFREPRENUER

SHINING THE SPOTLIGHT ON AFRICAN TALENT



MAUREEN
HOVE

Chemical Engineer

Inside
Stories of Six Engineers from
Zimbabwe, Nigeria, Lesotho
and Angola

Women In
ENGINEERING

A SPECIAL EDITION

ISSUE 14
AUGUST 2020

Editor's note



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One of the most encouraging stories that inspire me is that of Barbara Okereke, a cake designer, founder and managing director of Oven Secret Limited Nigeria. In 2019 she was named a member of the Forbes Africa 30 under 30 class. The highlight of her story for me is how, after recognising that getting a job was proving difficult, she decided to invest in upgrading her skills in baking. A move that took her from being ordinary to outstanding in a short space of time. Today Oven Secret is at the top of its game creating beautiful cake designs that sometimes you have to do a double-take to confirm its real. I believe that one of the reasons she enrolled for the seven-day course costing £2500 was that she realised to be the best she needed to learn from the best.

Which brings me to the issue of natural talent/skill, and whether having it is enough to set you apart from the rest. I believe that an inborn talent gives you a head start in that you do not struggle with mastering the basics. However, at this basic level, several people within it share the same natural talent. Those without the natural gift can easily fit in the same level by working twice as hard and putting in the time plus effort. In a nutshell, unique is non-existent at this particular level. It is when you decide to go the extra mile and develop the skill that you eventually become extraordinary.

In the business world, the reason why companies like Google, Apple and Facebook continue to dominate is that they are always on the lookout for innovative ways to improve their products and services. They understand that change is constant, so its either they keep up with it or lose out to the competition.

Here is some food for thought; How are you developing your area of gifting? And are you currently at the top of your game? If not, then perhaps this might be the ideal time for some personal innovation. Albert Einstein once said insanity is doing the same thing repeatedly yet expect different results. So be creative, think outside the box and step out of your comfort zone. The ball is in your court, make it count!

In this edition we wrap up Women's Month by sharing stories of six female engineers from across four African countries who are playing their part in the STEM field. Happy Reading!

Grace Mavunga

EDITOR & DESIGNER-IN-CHIEF



Kuena C. Letele

Civil Engineer, Lesotho

My line of work entails planning, design, construction supervision, as well as maintenance of structures, roads, bridges, dams, water and sewer networks. I started in 1993 doing a diploma course in Civil Engineering (Lerotholi Polytechnic) and completed BTech: Civil Engineering (specialising in Urban Engineering) at Tshwane University of Technology.

It is funny because I never planned to follow this career path after High School. I wanted to be an accountant or work in the health sector. However, I ended up an engineer after I took offence when a male friend discouraged me from studying Civil Engineering because according to him, it was a men's field, and women could not survive it. Today when I reflect, I am glad I did because Engineering and proved him wrong. I am passionate about it, and given another chance, it would still be my career of choice.

I am a hard-working, ambitious, and enthusiastic about taking up new challenges. I believe one should always strive towards individual betterment, in whichever form it may be. Therefore, I am never tired of beginning where others end.

I have been involved in water projects since I started my career, mostly water and sewer network reticulation. My desire is to be involved in the planning, designing and construction of one of the major dams in Lesotho. The roads infrastructure is also a total mess; as such, I hope to see more Women Engineers exchanging ideas on how to give Lesotho a better view. Traffic management is another area that needs revamp, and I would like to be involved in helping to bring much-needed development to the infrastructure.

What I have experienced in life is that family background does not matter for one to succeed. The only thing that matters is your dreams and how much you are passionate about fulfilling them. If you are dedicated to your goal, then no one can stop you from achieving it. I have seen many people who grow up in a terrible environment without any family support, yet they still go on to become successful in life.



I was privileged to have parents who did everything they could to ensure I have a better future, and I made sure that used the opportunity they gave me by working hard to be where I am today.

To the ladies, my message is I now know; it is not a men's world as we were made to believe back in the day. I hope to see more women in engineering, as we all know that we have a critical role to play in our society. I encourage all the young girls in Africa to work hard and become engineers; we should dominate this industry in the next 20 years.



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Chemical Engineer, Zimbabwe

MAUREEN HOVE

Cover Model

My name is Maureen Hove, and I am currently working as a Miller in one of the biggest milling companies in Zimbabwe. Milling is a worldwide trade involving efficient processing of cereal grains which provide almost half of the world's caloric demand and satisfying the global diet. The cereal grains are processed into various products to meet the needs and taste of the customer through particle size reduction. As a miller, I am responsible for efficient daily milling activities that ensure optimum operations utilising unique milling skills. I have gained experience via on the job training as well as studying with the South African Grain Milling Academy, which I enrolled for in 2019.

To be honest, I never thought about milling as a career of choice. I used to consume mealie meal, flour-based products and other cereals unaware of the processes involved in producing them. When I applied for the miller position, it was kind of a shot in the dark after having worked as a laboratory analyst within the same company for some time. However, once I started, I grew to love it as I discovered that it is a timeless profession with endless opportunities; which is probably one of the best-kept secrets in all industries that I am sharing with you now! I have always been up for a challenge, and milling provides me with just that!

One of the biggest challenges, when I started working, was self-doubt which was brought about by comparing myself with my fellow male counterparts who were doing well in the same field. This comparison and fear fuelled personal doubt and caused me to be over-cautious. I ended up feeling overwhelmed and questioning my ability in the workplace. However, with time I have learnt to appreciate myself and accept that we are all different. It takes a team to succeed, and each person, whether male/female must play their part to make it possible. As one of the few female millers in Zimbabwe and Africa, I am excited about the journey before me, and I hope to inspire other young ladies to join the profession.

Renewable energy and Climate change is also another area of interest for me. In 2017 I was awarded the 'Best Paper Presentation' during the Clean Energy Week in Zimbabwe under the topic; "Perspectives in Greening Zimbabwe's Energy sector".

I am a highly motivated and driven individual who is determined in everything I set out to do. I consistently work hard to succeed and provide solutions to problems.

As I look to the future, my dream is to become an end to end expert in the entire food industry by actively contributing to every function and aspect involved. The goal of achieving Food Security is key to the success and stability of any nation; therefore, I want to play my part in helping Zimbabwe accomplish this and become the breadbasket of Africa once again.

When I am not in my work suits, I spend my time writing. I run a Christian and motivational blog titled: theroyaldiadem.wordpress.com. You can visit it to see my latest articles. Some of my pieces have also been published in previous editions of The Afreprenneur.

Grow through what you go through and to all the females in the technical fields, banish self-doubt by reclaiming the power it has had over you. You can do all things as long as you put your heart and mind to it. You've got this! You are equal to the task!

  @Nyashie Hove

 @Maureen Nyasha Hove

Blog: Theroyaldiadem.wordpress.com



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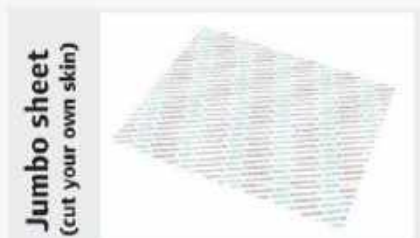


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OKORONKWO UCHECHI ANYA

Marine Engineer, Nigeria



I am a Marine Engineer with over six years' experience in the Marine, Shipping and Oil and Gas sector. I started working actively in the industry in 2013, and although it was very challenging at first, I was so determined to push through with my dream of rising to the pinnacle of my career. I fell in love with Marine Engineering while studying about it in primary school, and that became my dream career. I did not have any role models to guide me during the early years. As such, I made a few mistakes along the line, but my passion kept me going.

I was the best graduating HND cadet in my institution, Valedictorian in both Primary and Secondary Schools, recipient of various awards from my institution, an adept advocate of encouraging women in Seafaring and the first female Licensed Marine Engineer from my state. My goal is to obtain my Chief Engineer's License and a PHD in Maritime Shipping as well as other certifications. I aspire to someday work in the International Maritime Organisation where I hope to be the first black female Secretary-General. I want to be an inspiration to every young girl out there and show them that they can be whatever they choose to be as long as they put in all the effort.

My journey has not been smooth as I have faced my fair share of challenges. I finished best in my class but received very little recognition for it in terms of access to job opportunities. I struggled to get the mandatory sea-time required to obtain my License.

Getting a job as a Licensed Officer was also very difficult because of the reservations many shipping companies had with employing females. However, when I eventually secured a job, it came with a below-average salary that I accepted to get the required experience and save up for many other necessary courses in the field. Despite the low salary, I was grateful for the opportunity as it gave me a starting point.



I am very hardworking, driven, passionate and always ready to learn something new. I still want to improve on myself and take up more significant challenges.

It has been incredibly challenging to get funding to opt for foreign License outside the country as Nigeria does not issue that grade of License locally. I remember at one time writing to the Nigerian Administration and Safety Agency (NIMASA) for partial sponsorship to further my career, riding on the wings of the much talked about 2019 Seafarers' day theme: 'I Stand with Gender Equality'. However, I was told that it was not possible because it was not captured in that budget. It was a long, difficult time because I chased after every option for funding, but none worked. I really must applaud the program that funded a lot of young people to study in maritime programs abroad set up by NIMASA.

I believe that no matter what you are facing, never give up. You must try one more time. While it is vital to get good grades, it is also essential to build relationships, as this will help you climb the ladder to success faster. I got my first job in the Maritime Sector through a friend I met in high school. Improve yourself, learn more skills, and always strive to be the best version of yourself. Finally, be professional. Learn to be good at your job and earn your respect from others.

Do not doubt yourself for a second. You are a formidable force when you realise how powerful you are. Build yourself, build your knowledge, build your contacts and learn to accept that not everybody will recognise that you deserve to be there; however, never hesitate to always prove them wrong in the end.

Finally, I hope to have a fund to help females pay for their tuition and encourage shipping companies to give opportunities to female cadets and officers. One day at a time I am making my mark in this male-dominated industry, and I continue to gain respect from my male counterparts as they witness my expertise and the quality of my work as a female engineer.

VONGAI TARUVINGA

Civil Engineer, Zimbabwe



My name is Vongai, and I am a holder of a Bachelor of Science Honors Degree in Civil Engineering with at least 8 years' experience in the field of infrastructure engineering in public as well as private sectors. Currently, I am studying towards completing a Masters in Transportation Studies with the University of Cape Town. My expertise covers project identification, feasibility studies, field investigations, master planning, cost estimation, design, compiling of tender and contract documentation, tender evaluation and adjudication, construction supervision, quality control and contract administration. I am proficient in the design of municipal services (roads, sewer, water & stormwater) and have worked for various clients in the public and private sectors.

I bring into my professional endeavours business integrity, a passion for development, and for championing client needs. Currently, I am working as a roads Design Engineer for Abaziyo Consulting Engineers, a Civil Engineering Consulting firm in Gauteng, South Africa. My career started in 2012 after migrating to South Africa. I chose Civil Engineering because I love working with numbers, solving logically challenging problems, and I have always had a desire and passion for creating something new and different. The amazing opportunities that a career in Civil Engineering offers was a plus for me because it is such a diverse field.

In the early years of my career, I had visibility problems where I was overlooked when it came to technical expertise. I felt my competence was obscured by gender. In most cases, I had to work harder to prove my technical competence. Throughout my career, I have successfully completed various massive projects timeously and within budget. I have also developed solutions that work for complex engineering projects, and this has been quite an achievement for me.



When I am not in the work suit doing fieldwork, I love to dress up. I am a girly girl when I am not at work. In the future, I want to also venture into the fashion and clothing industry. It has always been an area of interest since I was a little girl.

I am a problem solver, who is not afraid of complex Engineering problems. I can comfortably adapt to a constantly changing environment while balancing workloads efficiently. I am also a woman of few words.

To the young women interested in an Engineering career, my advice is to be confident and ask questions when you do not know. That is how you learn. Be humble and willing to admit that you do not always have the answers. Develop a curiosity and a love for learning; Engineering is an evolving field, so you need to continuously develop yourself and be willing to grow. Above all, work hard and put in the extra hours when required to meet deadlines and targets.

Aldina Graça Alexandre João

Electrical Engineer, Angola

My name is Aldina Graça Alexandre João, and I am from Angola. I hold an Honours degree in Electrical Engineering and currently work at Power Production company. I am experienced with the operational area in power plants sites; managing, coordinating and controlling the duties of operations. I also support the supervision of the production process and maintaining the functioning of the site to achieve high-level performance. In this area, I worked a 12 hours day Shift; 12 hours night Shift being integrated into a men's team with the responsibility of maintaining the transmission of power into the houses of millions, including hospitals, supermarkets, schools and many other places.

have also worked in the maintenance of electrical machines onsite with the responsibility of ensuring that all machines and equipment are ready and safe to operate. This included taking care of the equipment health and its safety, performing on them preventive maintenance and corrective maintenance by troubleshooting them to identify and correct faults. Over the last few years I have been working in the planning, statistical and programming department of the generation team where we collect data, organize it, analyze and interpret it and extract the results for presentation to the board.





Initially, it was not my desire to study engineering, but, after research about what is involved in engineering, the possible areas of achievements in the field, and opportunity to help people I realized that this is what I wanted to be involved in. My experience thus far has shown me how beautiful science is and how it transforms things into remarkable designs. The best part of being involved in Engineering projects is that you get to achieve it all as a team. I am also dedicated to continuous research because as mentioned above during maintenance work, some malfunctions emerge and need to be fixed. So my focus is on finding ways to help solve these problems and make the projects successful.

I am proud to be a woman in engineering and playing my part in building my community. I have also dedicated myself to the area of aesthetics because am concerned about the well-being of people I dedicated myself to the field of aesthetics and opened an Aesthetic Centre because I like to see my fellow women embracing their beauty. I also started a project aimed at providing family support services to entities or companies moving to Angola. The testing stage of the project has shown promising results, and I plan to explore it further and grow the idea.

When it comes to decision-making, I am intrepid (fearless and persevere in all I set out to do. My advice to women is to be independent and look out for business opportunities. We have to be bold in business because it gives us greater capacity for self-fulfilment.

I have also learned that in addition to science, engineering is an art in the sense that we can meet the needs of society for the common good. It is a science because we discover that behind large and small equipment both come together to produce electricity for the whole community.

Practice Good Hand Hygiene

Source: World Health Organization



Wet your hands before applying soap



Rub soap all over your palms, the backs of your hands, and in between your fingers



Do this process for at least 20 seconds before rinsing



Wipe your hands with a clean towel or paper towel and void rubbing too vigourously.

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TSITSI P. MUNYUKI

Mechanical Engineer, Zimbabwe

My name is Tsitsi P. Munyuki and I am currently working as a Specialist Governance and Technical Stewardship for BHP, one of the largest mining companies in Australia. I migrated to Australia in July 2018 after having worked for the Zimbabwe Power Company (ZPC) based in Munyati, which is one of the coal fired thermal stations owned by the government of Zimbabwe. I joined ZPC as a Graduate Trainee, and after completion of the two year program, I spent five years working as a Planning Engineer.



The time spent gaining hands-on experience in the workshop and working with the crew during the graduate program was very instrumental in shaping my view of leadership and management. It allowed me to form valuable relationships that helped me quickly adapt to my role as a Planning Engineer. Sometimes professionals who are in the field of STEM often have challenges with soft skills or having a well-developed emotional intelligence, so that interaction with other team members helps address this and makes us more empathetic.

As I advance with my career, I want to focus more on project management. In my role as Planning Engineer, I worked on projects where I was responsible for managing plant shutdowns and overhauls for Boilers, Pumps and Turbines, which was both challenging and exciting at the same time.

During my tenure at ZPC, I was able to acquire several internationally recognised certifications such as PMP, PRINCE2 and Agile Project Management. They have proven to be a worthwhile investment as I continue to apply the lessons learnt in my day to day work life. One thing I believe with all my heart is that, if you can think it you can achieve it. If you commit to working hard and moving forward one step after another, I believe you will enjoy compounding returns from your actions. Therefore, do not despise the days of small beginnings.

Personally I am results-oriented and not satisfied with just ticking a box or barely meeting the minimum requirements. A sense of purpose and accomplishment is what drives me to wake up every morning and continue to look for ways to improve a system, a process or help out a colleague. Apart from pursuing deadlines, targets and goals, I embrace relationships with the individuals I work with and believe productivity increases when colleagues foster a culture of care and respect for one another.

There is no mystery or overly complicated hurdle that one has to overcome to be a part of STEM. It's all about perception, and as women, we need to be wary of the imposter syndrome and recognise it as precisely that, then take steps to rise above it. No one is smarter, it's not about gender or race or personal backgrounds. In fact, we are all figuring it out and learning as we go, and once we have understood how it works, we should embrace the responsibility to turn back to empower the next person.

 @Tsitsi Munyuki


One thing I believe with all my heart is that, if you can think it you can achieve it. If you commit to working hard and moving forward one step after another, I believe you will enjoy compounding returns from your actions. Therefore, do not despise the days of small beginnings.




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