

**Nelson Mandela  
Metropolitan  
University**

*for tomorrow*



mechanical shape symbolises engineering, while the organic flow  
evolution of younger women, moulded by their mentors to grow  
an idea from the initial concept stages to the actual realisation of  
initiative to change the engineering sector and establish a support  
system from mechanical to organic shapes. The mechanical  
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# INSPIRATIONAL women

Fourth edition

*I attribute my success to this: I never gave or took any excuse.*

Florence Nightingale

etamorphosis from mechanical organic shapes. The mechanical symbolises engineering, while organic flower-like shape represents femininity. The logo symbolises the evolution of younger women, led by their mentors to grow successful engineers. It also represents the evolution of an idea from initial concept stages to the actualisation of an engineering project. The logo radiates the association's initiative to change the engineering sector and establish a support structure for women in engineering. etamorphosis from mechanical organic shapes. The mechanical



The WELA project team

## WELA – growing women in the engineering field

**Wow! I can't believe we are already on our fourth Inspirational Women booklet. In the blink of an eye, we will have reached our tenth edition – and it will all be thanks to our partners and support team, many of whom are featured in this issue.**

It is with such pride that I report that our WELA Leadership Development Programme (LDP) is in full swing. Women Engineering students participating in the LDP will receive a short course certificate on completion, highlighting the workshops and other activities attended. We know that this will greatly benefit them in their work environment. These workshops and activities are aimed at advancing the students emotionally, personally and academically.

The WELA research study is also about to enter its second year. Through this research we aim to promote gender equality and the empowerment of women in various engineering-related fields. The title of the research study is "Exploring the self-efficacy of engineering students at NMMU" and it aims to provide a supporting argument for the development of co-curricular interventions to improve the self-efficacy of women engineering students.

The WELA programme continues to grow exponentially and in 2013 we boast 35 first-year WELA students. The students who have participated in our programme are our biggest marketers and, judging by the feedback received from them during a recent survey, they are extremely excited about their role in the engineering world after having participated in all the workshops and activities. This is our goal and we are pleased to be achieving it.

Once again, we need to thank all the past and present supporters of WELA. In this edition we proudly feature ten women making a difference in the Eastern Cape region, in fields varying from education to being the CEO. We know that this booklet inspires the students and other women to continually aim to reach their goals and pursue their chosen careers in engineering (or any other male-dominated environment) despite any challenges they may face.

Now turn the page and begin reading the inspirational pieces and take away any advice that you feel would benefit you.

Regards,  
**Dr Ann Lourens**  
**HOD: Industrial Engineering**  
**Project leaders: WELA**

# Deepa George

Lecturer  
NMMU



## What do you do?

I studied Electronics Engineering and recently graduated with a PhD in Electronics from the University of Pretoria. I lecture Electronics to second-year students in the Department of Mechatronics at NMMU. When I am not teaching 20-year-olds, my beautiful and busy two-year-old and I are learning how to go about our respective tasks as child and parent.

## What is most challenging about your job?

The most challenging part of the job is working out how to inspire young(er) minds to think as Engineers, i.e. to think outside of the confines of a traditional school education and in a more innovative manner that will add value to the field. Furthermore, trying to instil a desire for continuous learning not limited to the passing of examinations is quite challenging. In a field like engineering, if you have passion and enjoy what you do, it encourages you to keep learning and work harder to solve the real issues in your field. Lecturing and the preparation that goes with it are also quite new to me as, prior to moving to South Africa to join my husband and embarking on my PhD, I was an Integrated Circuit (IC) Design Engineer in Nvidia, India.

*... I think you should also prepare yourself to hold your ground when life throws a few surprises at you ...*

## Describe a typical day

Entertaining and feeding my daughter defines the start of each day, followed by preparation for lectures and then, twice a week, lecturing at the University. I try and interact with the students during my lectures to check if they are following what is being discussed in the class. The students' responses usually help me to decide if I should spend more time on a specific topic or if I should explain the concept from a different perspective. At times there are additional duties like preparing assignments and tutorials, setting up tests or marking exam scripts. After returning from work, my priority is to spend time with my baby.

## What advice would you give to women entering a male-dominated career environment?

Unfortunately, it is true that we don't find many women in the field of engineering (though thankfully the scenario is slowly changing), but that should not make any woman interested in engineering any less confident about her abilities. You may sometimes have difficulty finding female mentors at higher levels, but if you can demonstrate that you have the talent and the willingness to work hard, seniors in your field will be ready to provide you with support and guidance. More than anything else, as a woman, I think there comes a stage in your life where you will have to really decide on your priorities – when you have kids etc. – and that is when I find most women opt out of their careers. But I think you should also prepare yourself to hold your ground when life throws a few surprises at you. I believe if you decide to have a specific career, then nothing can stop you other than your own attitude and willingness to work hard.

## What do you do when you are not at work? (Hobbies etc)

I enjoy taking my two-year-old on outings to the park, beach

etc. and keeping her stimulated with various toddler activities. When I get some time for myself, I enjoy experimenting with cooking and going to the gym.

## What do you need for your current position (characteristics and qualifications)?

The most important qualification for any job is enjoying it. Lecturing was not something I was sure I would enjoy, but I've found it a great experience, and, as with any other job, approaching it with an open mind, looking to find positives and developing the characteristics one needs to enjoy it are important. In terms of qualifications, a postgraduate degree does help.

## What are your goals for the future?

I would like to continue lecturing and adding value to the field through my students, to whom I impart the values needed to improve their profession. I would also like to continue with my research in the field of Electronics Engineering.

## What is it like being a female in a typically male-dominated environment?

As discussed earlier, sometimes it is so easy to doubt your abilities when you are faced with issues at work, but then you have to understand that the problem is universal and you should just have the dedication to get you through to the other end. A woman should be confident enough to own her success. It is also necessary to be a team player and discuss your work with colleagues, as collaborative learning can be very productive in the field of engineering.

## If you weren't in your particular career what would you be?

I have always enjoyed trying to solve problems, so if I hadn't been lucky enough to be involved in the field of engineering, I would have chosen a career in science or mathematics.

# Julie Hempel

Lecturer  
NMMU

## **What do you do?**

I am an Industrial Engineering lecturer, Lab Technician, wife and mother. I have the awesome job of setting up practicals and assignments for the Industrial Engineering labs. In other words, I get to play with all the new machines and equipment.

## **What is most challenging about your job?**

As an Industrial Engineer in industry, you are required to facilitate and train. But, now standing in front of a class, I realise that the key to being an effective lecturer is turning an education into the skills and knowledge that industry requires.

## **Describe a typical day**

The day starts by getting the family out of the house on time with bags packed (the right people, to the correct work station, on time, with the correct equipment!).

Once at work, I revise the day's class material, present lectures or practicals, prepare for future lectures, mark and set assignments and tests, research new possible projects and see how they can be applied to the Industrial Engineering courses and subjects offered. In the evenings, I feed, water and love my family and prepare for the next busy day.

## **What advice would you give to women entering a male-dominated career environment?**

"Women who wish to be equal to men lack ambition" was my motto when I left school and started my career. Life has since

taught me to play to my strengths as a woman; you don't have to do the task the same way a man would. Being feminine is a strength; it often defuses a hostile environment.

## **What do you do when you are not at work? (Hobbies etc)**

Family time, make personalised clocks, sew

## **What do you need for your current position (characteristics and qualifications)?**

A BTech qualification in Industrial Engineering, working towards a Masters degree

## **What are your goals for the future?**

To maintain the work-life balance I have strived so hard to achieve and to complete a Masters degree.

## **What is it like being a female in a typically male-dominated environment?**

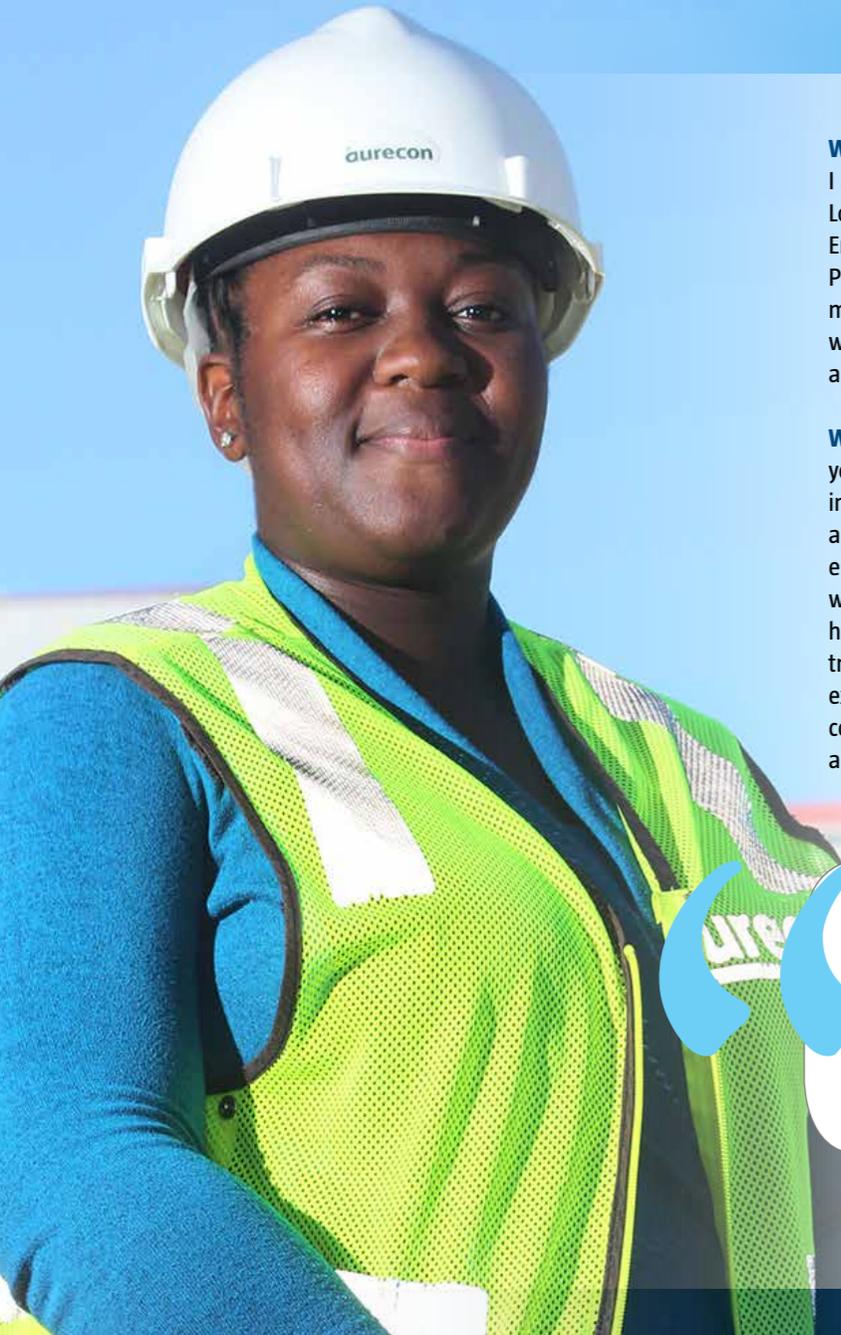
It is not the men you have to worry about as they usually underestimate you. It is the other women you have to impress. I have found that women usually hold other women to a much higher standard than they do their male peers.

## **If you weren't in your particular career what would you be?**

A Graphic Artist

*I realise that the key to being an effective lecturer is turning an education into the skills and knowledge that industry require*





**What do you do?**

I am a Civil Engineering Technician working for Aurecon's East London Branch. I am currently working on site as an Assistant Engineer's Representative at a Regional Water Supply Scheme Project that falls under the OR Tambo District Municipality. The main objective of the project is to supply villages with clean water at RDP standards and create jobs for the unemployed and skills for the community.

**What is most challenging about your job?** As an Engineer, you have to ensure that the design at hand is constructed in accordance with the specifications and completed in time and on budget while minimizing the risk to yourself and the employer. Challenges one faces when working on site include working outdoors every day, long construction hours, ensuring health and safety practices on site are applied accordingly, and trying to reach deadlines despite delays and disruptions like extreme weather conditions, supplier delays, labour strikes, community politics etc. All that matters is your own diligence and passion for your career.

*... hard work and commitment is a must to be successful ...*

**Describe a typical day**

In the morning when I arrive on site, I check the rain gauge if it rained the previous day, then I check the Request Books from the contractor for the day and do site administration work. In summary, my duties are:

Controlling the quality of the work and materials supplied by the contractor by checking these against specifications, drawings and other stipulations in the contract.

Controlling the expenditure on the contract by measuring quantities and certifying payments, including the continuous evaluation of the effect of variations, and regular revised estimates of the final contract price.

Monitoring the contractor's progress by comparing progress against the approved construction programme, including an evaluation of the effect of delays, disruptions and variations.

**What advice would you give to women entering a male-dominated career environment?**

A woman should never be intimidated by a man; one would be surprised by how much they need us. Have strong leadership skills, be confident and competently apply principles, proven techniques and the integration of theory with the aim of solving different problems. I encourage female candidates to join Engineering fields saying: "I can do all things through Christ who strengthens me." (Ephesians 4:13)

**What do you do when you are not at work? (Hobbies etc)**

I spend quality time with my family. We are a family of three:

my dear husband, lovely daughter and me. We watch television – sports programmes, cartoons, movies, National Geographic and Discovery channels.

**What do you need for your current position (characteristics and qualifications)?**

A degree/diploma in Civil Engineering. In this field, you need ability in mathematics and science and a desire to be involved in research, planning, design, construction, development and the management of infrastructure for the community. Be a problem solver and have good communication skills at all times. Learn to work as a team and under pressure.

**What are your goals for the future?**

My plans for the future are to pursue my BTech studies and register with the Engineering Council of South Africa as a Professional Engineering Technologist.

**What is it like being a female in a typically male-dominated environment?**

It is exciting and yet a challenge. There are fewer gossips and less politics. Some men still stereotype you, but as you prove that you are capable of doing the same job as them, these attitudes begin to fade away. At the end of the day, it is a great honour and it boosts your self-confidence and sense of self-worth.

**If you weren't in your particular career what would you be?**

I would have loved to have been a Mine Engineer; working beneath the earth's surface and extracting minerals from nature fascinates me.

# Sindy Mathura

CEO

Ascon Civil Engineering

## What do you do?

I am the CEO at a construction company based in Port Elizabeth. Our operations extend throughout the Eastern Cape, Western Cape and Kwazulu-Natal. I am responsible for the management of various aspects (finance, admin, project management and health and safety) of the company.

## What is most challenging about your job?

The Construction Industry is a very dynamic one. My biggest challenge is adhering to change, meeting deadlines and at the same time ensuring client satisfaction. Another challenge is ensuring employees quickly adapt to change and perform accordingly.

## Describe a typical day

I am a mother of two, so my day starts off with the school rush. Thereafter my work day starts by checking in with our Safety Officer/Site Managers to ensure that the sites are safe for the day's duties. My duties at the main office are broken up into office administration, financial administration, health and safety audits and monitoring on site, and project management. I am currently a Masters student (MBA) and end the day by attending lectures at NMMU.

## What advice would you give to women entering a male-dominated career environment?

Entering a male-dominated field is one of the most difficult challenges in today's world. It is important for a woman to

keep focussed and maintain adequate communication. By having an "open door policy", any miscommunications, ill feelings or feelings of mistrust can be resolved immediately. Entering this field is difficult, but staying is more challenging. Hard work, determination and leading by example are the ways to make those around you trust in your leadership.

## What do you do when you are not at work? (Hobbies etc)

My hobbies are centred on my family and spending time with my kids. Very often, I can be spotted at animal farms, entertainment and theme parks etc.

## What do you need for your current position (characteristics and qualifications)?

The qualifications required for the construction field include any Civil Engineering diploma/degree or short course plus experience.

To be in a position of Business Management, an MBA would be advantageous.

## What are your goals for the future?

My goals for the future are to develop and grow my company to its maximum potential, enter into new markets, and develop the talent within the company to help us grow as individuals.

## What is it like being a female in a typically male-dominated environment?

As explained previously, it is extremely challenging. It is very important for women to stand up firmly for what they believe in and gain the trust of those around them.

Not adhering to or taking instructions from a woman has been embedded as a habit in certain cultures – a woman in management has to understand this and make a plan to work around it, keeping her aims and goals in mind.

## If you weren't in your particular career what would you be?

Tough one... I would love to take up a job on a tropical island, hoping it would be stress free, but I think I would more likely be working as an Environmental Health Practitioner. It's the field in which I completed my degree after school and it is one of my other interests.

*It is very important for women to stand up firmly for what they believe in and gain the trust of those around them....*





# Sibongile Muthwa

Deputy Vice-Chancellor: Institutional Support  
NMMU

## What do you do?

I am the Deputy Vice Chancellor: Institutional Support at Nelson Mandela Metropolitan University. In this strategic portfolio, I am in charge of infrastructure, space and transport planning, including the implementation of NMMU's Green Index; ICT planning, multi-campus digitization, including blended learning; support services, including commercial and catering services, safety and security, occupational health and safety; student affairs, including student governance, student accommodation and custodial services; and student and staff health and disability services. I am also charged with overseeing academic administration, including student recruitment, admissions, registration, examination and graduation services, as well the keeping of institutional records. I also oversee marketing and corporate communications for the university, as well as arts and culture, and the institution's archives programmes. I am privileged to have this vast portfolio that continues to present many opportunities to learn and innovate.

*Women should know and believe in their value*

## What is most challenging about your job?

The most challenging part of my job is to manage the expectations of various stakeholders in the institution as each believes that their matter or project is the top priority. It is important that we keep relationships with entities of the university positive and professional to enable us to do our work.

## Describe a typical day

We do not have a typical day. The trick is to make sure that what is in the plan is not severely disrupted, while at the same time responding timeously and strategically to issues and crises that crop up. The rule of thumb is to run the portfolio in a manner that keeps the reputation of the university intact, while we move business forward in a highly dynamic environment.

## What advice would you give to women entering a male-dominated career environment?

Women should know and believe in their value. This ensures that they get heard, and can take a stand whenever the situation dictates this.

## What do you do when you are not at work? (Hobbies etc).

I love open spaces. So I love to walk, most of the time on my own. I find that this relaxes me and gives me a certain clarity and peace. I also love jazz and reading, particularly non-fiction works.

## What do you need for your current position (characteristics and qualifications)?

My job requires a lot of experience in managing complexity in big organisations (people, processes, systems and resources). In this job, one also has to be able to marshal and manage strong coherent teams. Making sure that there is unity of purpose among the different functional areas of my portfolio is my daily preoccupation.

## What are your goals for the future?

My goal is to continue to work in strategic roles where I can make a lasting difference in public life. I am acutely aware that the privilege of good education comes with a huge responsibility to contribute in helping our great country rise to its true potential. I have been privileged enough to be able to contribute my talent within higher education, and at this institution over the past few years.

## What is it like being a female in a typically male dominated environment?

I no longer let that concern me. I am sufficiently senior and experienced and have been a strategist for a long enough time to have learned how to manage both the relationships and the business. I would like to believe that I enjoy the respect of my colleagues across the board, irrespective of their gender.

## If you weren't in your particular career what would you be?

I would be in a helping and/or clinical professional role. Improvement of the human condition is something that has always appealed to me.

# Tebogo Makuma

Junior Metallurgist  
Autocast Aluminium

## What do you do?

I am a Junior Metallurgist at Autocast Aluminium, an automotive foundry that produces aluminium cylinder heads.

## What is most challenging about your job? Or, what is the most challenging part about your job?

Being a new graduate and working in a department where I am the only woman and have to prove myself on daily basis, to demonstrate to my male colleagues that I am capable of performing the same tasks as them.

## Describe a typical day

I go to a meeting in the morning to discuss problems that were encountered the previous day and brainstorm how to prevent the same problems from reoccurring in the future, and also make sure the process is running smoothly.

## What advice would you give to women entering a male-dominated career environment?

They should develop an elephant's skin that will allow them to be able to deal with criticism from the men who think that a woman cannot perform the same duties as them. I would also encourage more women to go into engineering because it can be as satisfying as any other career, except that it is male-dominated and you must be able to welcome criticism and learn from your mistakes.

## What do you do when you are not at work? (Hobbies etc)

I read a lot of motivational books and love watching TV series and movies.

## What do you need for your current position (characteristics and qualifications)?

You need a BSc/BTech/Diploma in Engineering Metallurgy, good interpersonal skills and you must be technically-minded and able to solve problems.

## What are your goals for the future?

I would like to be more involved in research and development as Metallurgy is one of the engineering sectors that still needs to be well-researched. I also want to venture into the business side of things because I think that it is always good to be both technically and business-minded. I would like to be one of the country's Welding Engineers in the next five years.

## What is it like being a female in a typically male dominated environment?

It is a challenge because you always have to prove to the men that you're capable of performing the same duties as them. It is even more difficult when you're a new graduate like me.

## If you weren't in your particular career what would you be?

I always wanted to be an Engineer so I have never really considered being in any other career. But if I was forced to change, I would go into Accounting.



*I would also encourage more women to go into engineering ...*

# Veliswa Dom

Quality Manager  
Froetek SA



## What do you do?

I am a Quality Manager at Froetek SA in East London. I am responsible for the implementation of quality standards for the whole company and make sure that we satisfy customer requirements. I am also responsible for any customer-related issues, like customer complaints, and oversee quality-related documents that need to be taken into consideration when implementing new or existing projects. Working for the Quality Department, you need to act as support personnel to all other departments by conducting internal audits and dealing with document control. Problem-solving techniques are important in my department and in the whole organisation. The main focus of the quality department is implementing, monitoring and maintaining the quality system on site. This department is driving improvement activities, including the maintenance of comprehensive quality metrics. Another responsibility is to form partnerships with the manufacturing organisation and support teams to make recommendations, set goals and implement solutions for process improvements.

*Learning is the key ...*

## What is most challenging about your job?

The most challenging part is ensuring that quality standards are followed and implemented in a proper manner by all stakeholders. The importance of emphasising the documentation of each and every aspect is not easy for people to understand. Quality is one of the departments that can make or break a company so you need to conduct thorough investigations before you make decisions. Most of our tasks require team work so you have to make sure everybody reaches a common understanding, and also take into consideration international standards together with customer requirements.

## Describe a typical day

Team work, problem solving, brainstorming and meeting ISO/TS specifications together with customer requirements. Kaizen (i.e. continuous improvement) is our daily language.

## What advice would you give to women entering a male-dominated career environment?

Learning is the key. If you understand your job and are keen to learn, you will be confident enough to work in any environment. Be able to listen to other people's suggestions and accept their positive criticism – as they will help you progress to the next level. Strive for new information all the time – do not be satisfied with what you know. The only way to get knowledge is to look for assistance from whoever has the knowledge or experience.

## What do you do when you are not at work? (Hobbies etc)

I like to attend church gatherings, gospel shows, and friend and family gatherings.

## What do you need for your current position (characteristics and qualifications)?

You need to be very patient and able to communicate with different types of people with different personalities and at different levels in their jobs. The most common qualification you will need is a diploma or degree in Industrial or Mechanical Engineering. You will also need to attend training for quality-related aspects.

## What are your goals for the future?

I would like to further my studies with courses that can develop my leadership skills, project management skills, entrepreneurship skills etc.

## What is it like being a female in a typically male-dominated environment?

Working with men is a very good experience as the different genders have different ways of performing duties but common goals. Sharing of ideas and brainstorming comes naturally to men which makes it easy for someone like me to collect data and come up with a concrete decision.

## If you weren't in your particular career what would you be?

I would be a Medical Doctor or Pharmacist.

# Carilee Strydom

Operational Excellence Specialist  
Fresenius-Kabi

## What do you do?

I am the Operational Excellence Specialist for the pharmaceutical company, Fresenius-Kabi. Along with the plant management team, I initiate continuous improvement projects with cost or quality improvement as outcomes. Projects include overall equipment effectiveness (OEE) or reduction of batch dumps etc.

## What is most challenging about your job?

Everyone has their own idea with regards to continuous improvement and what my role should be focussing on. Saying no to items that are not part of our scope can be challenging, but must be done to ensure that our financial targets are achieved. The most challenging part of my job is when an opportunity for improvement has been identified and buy-in obtained, only to find the project has been delayed because timelines have not been met.

## Describe a typical day

My day starts with a review of the previous 24 hours of production and an analysis of downtime. Reports are then updated in preparation for the daily operations meeting that I

attend. Thereafter, the project meetings are held or shop floor observations/studies are completed. I try and attend as many production meetings as possible, to stay in the loop and ensure that I am aware of all the challenges on the shop floor.

## What advice would you give women entering a male-dominated career environment?

Remain professional and assertive at all times. Do not make any assumptions; always work with the facts to ensure that your work is never questioned but accepted as accurate and correct.

## What do you do when you are not at work? (Hobbies etc)

I thoroughly enjoy quality family time and treat myself to mosaic and reading to relax.

## What do you need for your current position (characteristics and qualifications)?

An Industrial Engineering qualification with several years of experience in the Manufacturing Industry. You must be able to communicate effectively at all levels within the organization, with good report writing ability and presentation skills.

## What are your goals for the future?

My short to medium-term goals include working in production as Production Manager and longer term, to become a Plant/Operations Manager.

## What is it like being a female in a typically male-dominated environment?

I thoroughly enjoy it as I work really well with men in a team environment and, quite often, our complementary skills sets are needed to complete the task at hand.

## If you weren't in your particular career what would you be?

My career is very fulfilling and rewarding. I doubt that I would enjoy any other career quite as much.

A portrait of Carilee Strydom, a woman with light brown hair pulled back, smiling warmly. She is wearing a black top with a grey lace collar. The background is a blurred office setting with blue and white elements.

*I doubt that I would  
enjoy any other  
career quite as much.*

# Fikiswa Ntungana

Assistant National Lean Leader  
Transnet

## What do you do?

I am Assisting National Lean Leader at Transnet. I have six plants reporting to me, which are Salt River, Uitenhage, Durban, Germiston, Bloemfontein and Koedoespoort.

## What is most challenging about your job?

Ensuring that each plant makes their targeted Lean savings.

## Describe a typical day.

Waking up and taking my baby to school if I am in Uitenhage that week. Then I follow up with each plant and scrutinize the projects to see if they have covered everything – and then I give advice and guide them with problem solving.

## What advice would you give to women entering a male-dominated career environment?

They must be prepared to prove themselves every now and then to show they are not just a pretty face. They must be able to take their work seriously and shouldn't be distracted by the opposite sex in their work environment. They should try not to

be sensitive about comments made in the office, whether it's something aimed at them or just a general statement that's being made – after all, boys will be boys; they never tire of goofing around. Be professional at all times but don't limit yourself to activities in the work place – networking is best done while socialising so grab a beer once in a while and you'll be amazed at how much you didn't know.

## What do you do when you are not at work? (Hobbies etc)

I love going out with friends and family – you'll find me at hotspot restaurants, resto bars etc. When I'm not around a lot of people, I write and spend some time strumming on my guitar. I love my music, so music is my hobby I guess. Wherever there are music gigs, poetry sessions, art or the beach – that's where you will find me when I'm not at work.

## What do you need for your current position (characteristics and qualifications)?

A National Diploma in Industrial Engineering and extensive background in Lean manufacturing and Six Sigma

## What are your goals for the future?

I'm planning to register for an accounting course before I do my MBL.

## What is it like being a female in a typically male-dominated environment?

It has its up and downs but being the person I am, I love it. No drama, just work and loads of fun.

## If you weren't in your particular career what would you be?

I would be an Accountant.

*Be professional at all times  
but don't limit yourself to  
activities in the work place.*





# Marilize Nel-Verwey

Civil Engineering Technologist  
SANRAL

## What do you do?

I am a Civil Engineering Technologist, employed by the South African National Roads Agency SOC Limited (SANRAL) as a Project Engineer in their Southern Region. The Southern Region serves all national roads in the Eastern Cape as well as some regional arterials.

As a Project Engineer, I am the custodian of at least one of our road sections at any given time. This entails conducting regular inspections of the road, ensuring that there is a routine road maintenance contract in place at all times, and managing all planning related to that section of the road, e.g. upgrades etc.

In addition to the above, I am also the Project Manager for several road construction projects, which range from reseals to upgrades, reconstructions and new bridges. My current project portfolio has a construction value of approximately R 1.2 billion.

Each Engineer in our office has a specialist field or is the champion for a specific operation. In our office, I am both the community and SMME development champion. This means that although I do not manage all of the projects myself, I am the coordinator for all of our community development projects and am ultimately responsible for ensuring that these projects are implemented and reported on.

*I really love my job and am convinced that I am making a difference ...*

As the SMME development champion, it is my responsibility to ensure that SANRAL's SMME training programmes and inclusion mechanisms provide ample development opportunities to SMMEs – and to enhance their utilisation on our projects. This role requires a lot of stakeholder engagement and I am often on the road to give presentations to regional and local authorities, as well as national and provincial departments.

Other than the above, I am involved in various day-to-day office management tasks, which range from HR tasks to risk management, procurement management, office accommodation and many more. Consequently, I represent our office on various forums.

## What is most challenging about your job?

Let me start by saying that I really love my job and am convinced that I am making a difference. I therefore always view challenges as opportunities to learn, but also to put my skills into practice.

That being said, challenges big and small arrive on my desk, in the office, and on site on a daily

basis. It may be a procurement challenge like getting a variation order approved, an HR challenge like motivating the need for a new position, or a technical challenge like dealing with a subsoil drainage problem.

From a professional point of view, my most burning challenge is that there is just too much to do and too little time!

From a personal point of view, my work takes me away from home for at least two to three days a week and I am concerned about how it may affect my four-year-old son.

## Describe a typical day

I think most engineers will tell you that there is no such thing as a typical day, which is a challenge in its own right! You might plan to do some project administration, but when you

arrive at work – or even before you arrive at work – you get a phone call from site and you have to rush there to solve a technical problem.

Nevertheless, my typical day involves processing a lot of e-mails, reviewing and commenting on design documentation, having technical and other meetings, doing site visits and attending site meetings, giving presentations to stakeholders and other stakeholder engagement, and processing a lot of contract and project-related tasks such as ruling on claims, preparing variation orders, checking and approving payment certificates and fee accounts. The list is endless.

## What advice would you give to women entering a male-dominated career environment?

If you want to be taken seriously and accepted as a professional by your male counterparts, you have to look the part and walk the talk.

Although you would want your male colleagues to focus on what you have to say rather than how you look, it is important to always have a professional and neat appearance. Keep it simple, but make sure that you are well-groomed and dressed appropriately for the occasion – high heels and make-up are a no-go for site meetings!

When it comes to walking the talk, it is important to know your subject material well. Pay attention to detail and ensure that you are always well prepared for meetings and the like.

## What do you do when you are not at work? (Hobbies etc)

Although "hobby time" is few and far between, when I am at home I spend as much time as possible with my son. He has a huge imagination and I constantly have to pretend to be a monster or an animal of some sort, chasing him around the house and garden.

# Marilize Nel-Verwey (cont)

Civil Engineering Technologist  
SANRAL

Otherwise, there is usually more than one book on my bedside table and I like to work in the garden, accompanied by my dogs. Furthermore, I have some “art” on my walls created by my son and me and, although Ouma does the baking, I am responsible for decorating her creations.

## What do you need for your current position (characteristics and qualifications)?

I have a National Diploma (T3), as well as a National Higher Diploma (T4) in Civil Engineering. I followed it up with a BTech Civil in Urban Engineering as well as a BSc (Hon) in Urban Engineering. In 2005 I completed an MBA at North West University and I am registered professionally with the Engineering Council of South Africa (ECSA).

From a professional point of view one needs to be a strategic thinker, analytical and able to pay attention to detail while keeping the bigger picture in mind. As an engineer, you definitely have to be technically-inclined, but also need good written and verbal communication skills.

From a personal point of view, a well-organised, time-conscious personality will fare better. You need to be disciplined, determined and have a lot of drive.

## What are your goals for the future?

When I was younger, I was very ambitious and wanted to conquer the world. However, since the birth of my son, I have realised that there is more to life than ambition in the work place.

I am not the type of person that aims to “leave something behind”, but I really believe that I am impacting on the life of every person that drives on a road with which I have been involved. I also take my role as community and SMME development champion very seriously. I know that I can play a role in improving the livelihoods of disadvantaged communities.

Until recently I looked up to my mentors and, although I still do, I have now become a mentor to my younger colleagues in the office. Realising that you are viewed as a mentor is an honour, but it also comes with a huge responsibility as you are not only impacting on a younger colleague’s career but also on the industry. I shall therefore continue to work towards being a responsible mentor.

In a nutshell, my goals would be to continue to learn and grow in my career, and to serve the industry well.

## What is it like being a female in a typically male-dominated environment?

When I was younger (20 years ago), I would enter a meeting room and be looked at as though I was in the wrong place. However, once my older male colleagues got to know me and knew that I took my job seriously and always did my best, they soon treated me like a colleague and gave me the necessary respect.

As I grew older and was better known in the industry, “getting the look” became less of a problem, and I can honestly say that I never sense that I am treated differently, at least from a professional point of view, because I am a woman.

Nevertheless, although we have come a long way, and most men accept woman in a male-dominated environment, one should be under no illusion that we are living in a “sexless” world. From time to time one will pick up the subtle chauvinist nuances. My advice is to ignore it, be yourself and do your best – they will come around.

## If you weren’t in your particular career what would you be?

I think I would be a Psychologist or Lawyer.

## 2014 wela Leadership Development Programme

### Junior members

- ▶ Student counselling development workshops
- ▶ Professional development workshops
- ▶ Academic development workshops

### Senior members

- ▶ Mentorship
- ▶ Technical project
- ▶ Engineering related short courses
- ▶ Factory visits
- ▶ Panel discussion

### Working wela

- ▶ 7 Choices for successful women
- ▶ Project management
- ▶ Lean workshop

Depending on funding, study abroad opportunities and bursaries will be made available to wela students.

## Vision

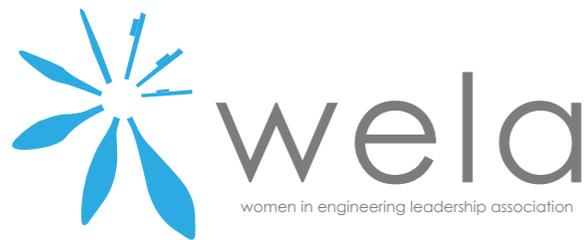
To be recognised as the first choice university for supporting women in engineering.

## Mission

To offer a diverse range of support and developmental services to women in the field of Engineering.

## Goals

- ▶ Establish Engineering as a desirable career aspiration for girls and women.
- ▶ Develop retention and growth strategies for women already studying in the field of engineering.
- ▶ Mentor, assist and advance women already in the field of engineering.
- ▶ Focus on academic, professional and personal development and be of service to the community.



THE LOGO: A metamorphosis from mechanical to organic shapes. The mechanical shape symbolises engineering, while the organic flower-like shape represents femininity. The logo symbolises the evolution of younger women, moulded by their mentors to grow into successful engineers. It also represents the evolution of an idea from the initial concept stages to the actual realisation of an engineering project. The logo radiates the association's initiative to change the engineering sector and establish a support structure for women in engineering.

Wela is the Xhosa word for change/transition.

(Logo design: Milla Theron, NMMU Graphic Design student)

Zandra Kolesky



Dr. Ann Lourens



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