

## **Women engineers take flight**

By Nicky Willemse

Women today run companies, fly planes and can match their male counterparts in just about any career, including engineering.

Despite this, and the fact that computers have replaced much of the physical work once associated with this career, engineering remains a male-dominated domain globally, with just ten per cent of women making up its numbers in South Africa, the United Kingdom and the United States.

In an effort to boost the number of Eastern Cape women choosing engineering as a career – and support and develop those studying or working in this field – Nelson Mandela Metropolitan University together with the Manufacturing, Engineering and Related Services Education and Training Authority (Merseta) last year launched the Women in Engineering Leadership Association (Wela), and the programme is already bearing fruit.

“From the feedback received from our initial cohort of Wela women and industry partners, it is evident that Wela is making a difference in the lives of women by inspiring, motivating and developing them,” said Wela project manager Dr Ann Lourens, head of industrial engineering at NMMU.

Wela’s programme is structured to develop female students and engineers on an academic, personal and professional level. A leadership development component, with technically-orientated workshops and a project, has been added to the existing programme, which includes student counselling workshops, various interventions and discussion panels. Mentoring is another arm of Wela’s function – with experienced women engineers mentoring those who are new in the field.

“Our research reveals that the current generation of first year engineering students want to be recognised as successful women in a male-dominated environment. They want to make a difference in their community and this can be done through their drive to become successful engineers,” said Lourens.

At a recent Wela discussion panel, Haldan Consulting industrial engineer Laverne Louis had some advice for aspiring women engineers. “Watch your attitude – you don’t have to be overly-aggressive to prove you are as worthy as your male co-workers. Your intelligence and work product should speak for itself.”

She also highlighted the importance of finding a mentor within the organisation. “Don’t be afraid to reach out to women or men in senior positions.

“Women in male-dominated fields typically have to work harder to prove themselves. You should remain positive and confident in who you are and what you stand for and the work you do... Your colleagues will accept you.”

At the same discussion, Estelle Gathercole, general manager of the Automotive Industry Development Centre Eastern Cape (AIDCEC), said: “These days, women are being recognised more and more for their roles in the workplace... It is important for women not to invest in the belief that they are at a disadvantage because of their gender.”

Gathercole said the company's Skills and Development Department had been running an industry-funded Automotive Experiential Career Development Programme (AECDP) for grade 12 pupils to expose disadvantaged groups to engineering. “When we first started in 2005, we had three or four female learners participating in a group of about 30. Now, 48% of those involved are females, with selection for the programme based on their school results for maths and science.

“One of our main objectives when we started the AECDP was to increase female participation and develop female engineers.”

NMMU engineering student Sephiwe Dlamini said: “Wela opened my eyes by showing me that we as women need to become leaders of today and tomorrow... We can change the world by believing in ourselves.”

Her opinion was echoed by student Thandile Ndevu, who said: “Wela is allowing me to grow into the woman I've always wanted to be... Wela has allowed me to discover my voice.”

The Wela project is housed under the Merseta Chair in Engineering Development in NMMU's Faculty of Engineering, the Built Environment and Information Technology.