



The Operations Research Society of South Africa



Category II Recognition Award

(To a current member of ORSSA for a single, outstanding achievement with respect to the practice of OR on a national level)

Marlize Meyer

Citation. By Hans Ittmann, on behalf of the Executive Committee of ORSSA.

Born in Vanderbijlpark, Marlize Meyer received a Sasol bursary for studies in chemistry after matriculating at age 17 in 1987. After obtaining her BSc from the University of the North-West at 20, she started working at Sasol and continued her studies to obtain an Honours degree in computer science at the same university. She then transferred to an area more suited to her passion, namely decision support in the R&D group at Sasol. While the group name has changed over the years, OR and simulation remained priorities at Sasol. She continued her studies, receiving an MSc in OR in 2004 and is currently enrolled for a PhD, titled "Stochastic Operations Modelling (SOM) at Sasol." She is considered to be the person who will grow OR and simulation in Sasol and is passionate about her work. She believes that *stochastic operations modelling* (SOM) will always have an integral role to play in Sasol projects locally and internationally.

Marlize was one of the founding members of Sasol's OR group, and was instrumental in establishing stochastic simulation modelling in the company. She has played a key role in building OR capacity and capability at Sasol. When she joined the R&D decision support team, responsible for programming and supply chain modelling, she discovered her passion for simulation. "The simulation projects yielded reliable results and I realised that simulation could potentially be used to make a difference in many projects dealing with operations and processes," she says.

Meyer started the first stochastic operations model for Synfuels in petrol blending and distribution. This single flame yielded positive results and was fanned to a fire by each modeller who developed and nurtured a model used at Sasol's Secunda plant (Synfuels). As a new technique, not historically part of engineering, it required some convincing to prove the value of this modelling approach. As the team grew and new models were developed and used effectively, the work started to be seen as a technique with a future. To sustain this work over 10 years required a team of modellers and good management. The current team comprises some 35 highly-qualified modellers and stochastic modelling is now used in most of the capital projects in Synfuels and Sasol.

The Sasol's OR group has won recognition from the International OR community. In 2010, the team was nominated for the Franz Edelman award, arguably the most prestigious international award for the practice of OR and awarded annually by the *Institute for Operations Research and Management Science* (INFORMS) in the United States. The team was more than a worthy finalist and continued to receive the INFORMS prize in 2011. This Prize is awarded for effective integration of *operations research / management sciences* (OR/MS) in an organisation. The award is made to an organisation that has repeatedly applied the principles of OR/MS in pioneering, varied, novel and lasting ways. In receiving this prize, the team at Sasol has demonstrated the creative use of OR to improved decision making. Sasol is the first African company to have won this award.

Their accolades have led to the team winning the 'team of the year award' from the Sasol MD in 2010. Their efforts have led to over \$230 million value-add to Sasol over the past 10 years. In this regard Marlize has played a pivotal role; she was also one of the successful Sasol women showcased this year at Sasol's women's day. "Just do what you believe in, and stick to it with determination... and success will follow," she advises.

The Executive Committee of ORSSA decided to recognise the significant contribution Marlize has made and the role she has played in the international recognition that the stochastic operations modelling team of Sasol has received over the past few years. As a current member of ORSSA, she is receiving this recognition for her single, outstanding achievement with respect to the practice of OR on a national level. I call on the President to present the award to Marlize Meyer.