



*Fellow of the Operations Research Society
of South Africa (ORSSA)*

Martha Fredricka Petronella Harmse

Citation. By Jan van Vuuren, on behalf of the Executive Committee of ORSSA.

Martha Fredricka Petronella Harmse, known to us as Marthi, was born in Bloemfontein on the 25th of September 1965. After completing a bachelor of science degree (majoring in mathematics, applied mathematics and computer science) at Stellenbosch University in 1986, she enrolled for an honours degree in operational analysis at the same university, obtaining this degree in 1987. She followed this up with a masters degree in computer science, also from Stellenbosch University, early in 1990, after which she became a mathematics teacher in Vanderbijlpark during the remainder of the academic year 1990. In 1991 she took up a lecturing position in the Department of Computer Systems at the Vaal Triangle Technikon in Vanderbijlpark, where she stayed for two years before accompanying her husband on a development programme in Houston, Texas during the period 1992-1993.

Upon her return to South Africa in 1994, she again took up a position at the Vaal Triangle Technikon, but this time as lecturer in the Department of Information Technology, a position she held for six years. Then, in 1999, she became head of the Department of Curriculum Development within the Vaal Triangle Technikon, her main responsibility being to facilitate the implementation of the institution's outcome-based education programme – she held this position until 2001. During this time in Vanderbijlpark she also became a part-time student again, studying philosophy up to third year level for non-degree purposes at the University of South Africa during the period 1995-1997, and obtaining distinctions for all her courses. In 2000 she obtained a second masters degree *cum laude*, this time in operations research from the then University of Potchefstroom for Christian Higher Education

In 2002 Marthi joined the Modelling Development and Application Services team within the larger Operations Profitability group at SASOL Technology, which focuses on decision support for the whole of SASOL on an *ad hoc* basis, building models in support of operational, tactical and strategic decisions within the company. At SASOL Marthi has been involved in a broad variety of projects, employing modelling techniques such as mixed integer programming, nonlinear programming, discrete event simulation and metaheuristics, often assuming leadership positions in these projects. In 2008 she moved to the Human Resources department within SASOL in the capacity of values-driven leadership navigator, where her current responsibilities include the management of organizational culture. Four of the largest SASOL projects under Marthi's leadership included developing and implementing an advanced planning and scheduling model for the various business units in SASOL Polymers, designing a model suite aimed at optimizing the coal value chain from SASOL Mining to SASOL Synfuels, building a decision support system enabling SASOL to implement the recent labour hire legislation requirements and restrictions, and designing and implementing a continuous, dynamic simulation model for human capital management at SASOL.

Marthi has had a longstanding connection with ORSSA, serving the Society passionately and tirelessly in various capacities. Apart from being a regular presenter of papers at national conferences, Marthi has twice organized national conferences for ORSSA. She served as Chapter Chair of the Vaal Triangle Chapter of ORSSA during the period 2001-2005, as President of the Society during the period 2006-2007 and now as Treasurer. She was also a key figure in terms of securing various sponsorships in the run-up to ORSSA's successful hosting of the triennial conference of the International Federation of Operations Research Societies in Sandton last year.

For her numerous contributions to the profession of Operations Research in general, and her services over many years to ORSSA in particular, Marthi Harmse was duly elected *Fellow of the Operations Research Society of South Africa* during a closed electronic ballot of the Executive Committee on the 5th of August 2009. I call on the President to confer Fellowship of the Operations Research Society of South Africa on Martha Fredricka Petronella Harmse.