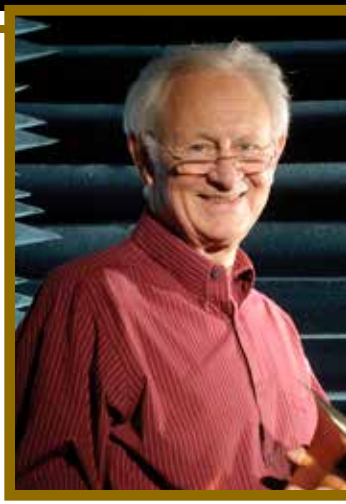
JAN MALHERBE



AWARDS, HONOURS AND ACHIEVEMENTS

- Identified in the University of Pretoria centenary celebrations as one of the university's Leading Minds of the last 100 years (2008)
- Life Fellow of the Institute of Electrical and Electronics Engineers (2008)
- Havenga Prize for Engineering (1995)
- Awarded the Institute of Electrical and Electronic Engineers (IEEE) Third Millennium Medal in 2000, "*For outstanding achievements and contributions*".

DEFINING MOMENT

Probably when he was identified for comprehensive support by the then Foundation for Research Development (forerunner of the National Research Foundation) and later having his section identified as the first Centre of Excellence by the Foundation.

WHAT PEOPLE MIGHT NOT KNOW

He is a romantic and he loves history and classical music – from the romantic composers to Mahler and Strauss. He is totally committed to the development and preservation of Afrikaans.

BEYOND THE CALL OF DUTY

After serving the engineering profession and the higher education system in South Africa in various capacities for decades, Jan Malherbe has returned to his original 'hobby' and his greatest fascination – research. He now works as a retired professor of Electronic and Computer Engineering at the University of Pretoria (UP), where he was previously Dean of Engineering and Vice-Principal of the institution.

"My research has been my hobby since I first started working at a university," he explains. "I did it because I believed it was necessary, but also because of the immense satisfaction of creating something unique. The first seven years after graduation were spent in 'engineering'. And then I started teaching and loved it: I discovered what I wanted to do when I grew up. And after the 15-odd years in academic administration, I am now again doing what I love."

Malherbe is considered one of the leading researchers at the Electronic and Computer Engineering Department at UP and was the first engineer to receive a B-rating from the National Research Foundation (NRF). Over the span of his career at UP he has received numerous awards for his research achievements and his contributions to the advancement of research in the department, faculty and university. He currently holds an NRF-rating of C2.

STARTING WITH A RADIO

Drawn to technology early in life he noticed the circuit diagram and instructions for building a simple radio set while flipping through a youth magazine. "I was interested because radio fascinated me then, more from a reception point of view than the electronics. Somewhere I obtained a simple kit for a one-valve radio, with earphones. I became more interested in electricity and wires and built my first hi-fi set while still at school. But I did not choose a career in science and after school, engineering seemed like a good idea – radios and amplifiers and antennas (then still called aerials) drew me.

"Here I offer a bit of philosophy: Very, very few youngsters know what a career means, how to choose it, and whom to ask for advice. You make one of the most important decisions of your life without the necessary knowledge. Some of us are just lucky!"

During the isolation period in South Africa he worked overseas in the 1960s and again in the 1970s, gaining insights and exposure that helped him career-wise and as a person. "When I started working in England directly after graduating, I worked with other young people and shared the things that young people are interested in, of which politics was the least important – even though we were registered as 'aliens' with the local constabulary. In the late 1970s, in the United States this time, we were again fortunate enough to be assimilated into an extremely cosmopolitan community, and your outlook on life is broadened by the experience and vision of others. From a career point of view, having the best people working with and for you is key to success, even more important than having superior facilities."

In the 1960s, Malherbe worked in the United Kingdom for General Electric. He returned to South Africa to the Laboratory of the Department of Posts and Telegraphs in Pretoria and then taught Electrical Engineering at Stellenbosch University. He left again in the late 1970s to study and work at the University of Illinois, Urbana and then at Stanford University.

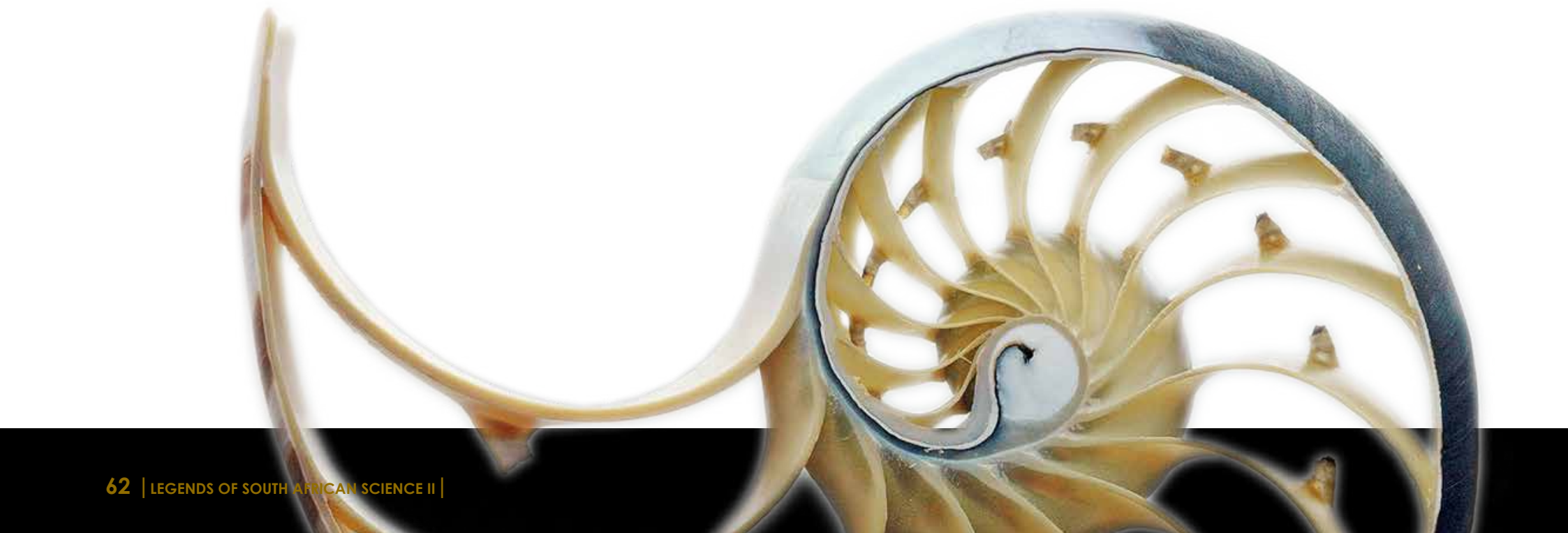
Upon returning, he joined UP and continued to work in the field of microwave and antenna engineering. This has been an area of specialisation at the university's Department of Electronic Engineering for a long time. In 1986 the Electromagnetism Group under the leadership of Malherbe was honoured by being named the first Centre of Excellence by the then Foundation for Research Development (FRD). In 1990, the Electromagnetism Group received a major stimulation with the opening of the Compact Antenna Test Range for antenna and radar cross section measurements. The facility was significantly upgraded during 2010. This facility, unique as a university-owned research laboratory in the southern hemisphere, enables the characterisation of antennas in the frequency range from 0.75 to 40GHz.

LEADERSHIP POSITIONS

During his illustrious career, Malherbe has occupied management positions at science councils and universities, and he has been part of the executive leadership at UP. "I tried to emulate two of the best leaders I had the privilege of working with: The first is the late Louis van Biljon, who was Head of the Department of Electronic Engineering, then later my Dean, and when I became Dean, he was Vice-Principal for a while. The other is Rein Arndt, then President of the FRD. They taught me that the successes of those for whom you have a responsibility are your successes – as opposed to 'leaders' who see the success of their colleagues as a threat to their own success. It implies that you have to have integrity – to do the right thing even if it might be to your disadvantage."

Malherbe is one of the 100 elected Founding Members of the Academy of Science (ASSAf) and he has served as a Council Member and as Vice-President. He is a Fellow, past Vice-President and past Council Member of the South African Academy for Engineering, a Fellow and past Council Member of the South African Institute of Electrical and Electronics Engineers, and founding (and past) Chair of the South African chapter of the Institute of Electrical and Electronics Engineers.

He has produced 72 journal papers, delivered 37 overseas conference presentations, and written three text books (one as co-author), as well as a chapter in the *John Wiley Encyclopedia of RF and Microwave Engineering*".



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