



POLYTECHNIC OF NAMIBIA

SPEECH

BY

PPOF TJAMA TJIVIKUA

RECTOR OF THE POLYTECHNIC OF NAMIBIA

ON

**THE OCCASION OF THE PUBLIC LECTURE DELIVERED BY
PROF JOHN RALSTON (EMERITUS LAUREATE PROFESSOR,
UNIVERSITY OF SOUTH AUSTRALIA)**

24 MAY 2012

18:00

THE POLYTECHNIC HOTEL SCHOOL

WINDHOEK

Director of Ceremonies

Permanent secretary Ministry of Mines and Energy, Kahijoro
Kahuure

President of the Chamber of Mines, Mr Werner Duvenhage

CEO of Chamber of Mines, Mr Veston Malango

Distinguished Captains of Industry

Honoured Guests

Members of the Media

Ladies and Gentlemen

It is my great honour to welcome you to this public lecture on *The 21st Century Challenges in Mineral Processing*. This presentation is part of the Polytechnic's contribution to the nation in general and to our stakeholders in particular. It is also a platform for engagement with the local industry in order to establish symbiotic partnerships and build sustainable futures.

For any country to develop technologically and economically there must be a strong link between its industry, government, academic and research institutions, and civic society. It is through this multi-lateral relationship that institutions ensure that their curricula derive relevance from the needs of their nations and the stakeholders.

The Namibian economy is heavily dependent on the extraction and processing of minerals for export. Mining accounts for approximately 12% of the GDP, but provides more than 50% of foreign exchange earnings. Namibia is a primary source for gem-quality diamonds and is ranked the fourth-largest producer of uranium in the world and in the coming years once the Husab mine starts production it will move to the second position.

There is no doubt that the mining industry is faced with multiple tremendous challenges ranging from the declining ore grades, water quality and supply to the ever escalating energy costs and sustainability amongst others. As you know, Southern Africa is facing a looming energy shortage and cost escalation. Innovation is thus required to address some of these challenges. The sustainability of the minerals industry is heavily reliant on continuous improvements to existing mining operations. Without such improvements, the optimum value of resources may not be realised.

The Department of Mining and Metallurgical Engineering has grown rapidly since its inception in 2009, within the Polytechnic of Namibia, which is transforming into the ***Namibia University of Science and Technology***.

The crux of our success is a vibrant team of qualified professionals, supported by a vibrant industry, all who are committed to excellence and advancement.

Our passion hinges on cutting-edge research in mining operations, mineral processing, and hydro-metallurgy - coupled with environmental and economic considerations – which we shall develop as niche areas. While these research niche areas will make meaningful contributions to the national and international research agenda, as well as delivering high quality graduates, we aspire to be your prime partner of choice.

We at the Polytechnic or soon the **University of Science and Technology** have a clear goal of producing excellent and competent graduates through our student-centred approach to teaching and learning. We aim at unlocking the true potential of students by offering two distinct programmes, namely **Bachelor of Engineering in Mining** and **Bachelor of Engineering in Metallurgy**, programmes that are demand driven and internationally benchmarked. The Department always seeks to extend its networks and to continuously engage with leading academics, researchers, captains of industry and other stakeholders.

Our international partners coupled with our local industry advisory board help us to sustain relevance and boost the credibility and quality of our programmes.

We are currently constructing a state-of-the-art building with lecture rooms, laboratories, offices and other amenities for Mining and Metallurgy, Civil Engineering and Architecture. In the long term, we plan to set up a pilot plant for metallurgical processes and have access to a mine in a partnership, where our students will conduct their practicals and research. We also plan to establish a mine museum, open to the public for career guidance and informative purposes. However, these long term plans are only possible with your support.

With all this in mind, I would like to take this time to introduce our speaker for tonight, *Emeritus Laureate Professor John Ralston - Visiting Professor in the Department of Mining and Metallurgical Engineering/Polytechnic of Namibia.*

Background

Professor John Ralston is a Physical and Colloid Chemist with complementary training in metallurgy, whose research interests embrace various aspects of interfacial science and engineering.

Prof Ralston is the founding Director of the Ian Wark Research Institute at the University of Southern Australia and is a Professor of Physical Chemistry and Minerals Processing. He was the driving force behind the establishment of The Wark in 1994 and over the past three decades has actively supervised more than eighty doctoral research students. These students have gone on to establish successful careers in universities, industry and other research institutions all around the world.

Prof Ralston is the author of over 350 refereed journal articles and textbook chapters, plus numerous conference papers and industry reports. He acts as referee for major international journals and is presently a Council Member of the International Association of Colloid and Interface Scientists (IACIS). Since 1984, Prof Ralston has been awarded over AU \$200M in competitive grant funding from the Australian Research Council, the Department of Education, Science and Training and national and international private industry.

Throughout his career he has held invited Professorships in Cape Town, Lulea, Bristol, Utah and Florida and holds an Honorary Doctorate from the Abo Akademi in Finland, as well as Honorary Professorships in Materials Science and Engineering at Tianjin University in China and the Graduate School of Engineering at the University of Tokyo.

Prof Ralston was the principal researcher who led the initiative to establish the Australian Mineral Science Research Institute (AMSRI) which commenced on 1 January 2006. AMSRI was a virtual institute in particle science and engineering, with its headquarters at The Wark and involved collaborative research at the Universities of Queensland, Melbourne and Newcastle. Major international companies were involved, through AMIRA International, along with overseas collaborators. Outside science, he has a strong interest in literature, world history, travelling and sport, especially skiing.

The Polytechnic under its 2012 theme of *“building sustainable futures”* identified strategic partners to work with in taking the department to a higher level and it is our joy to welcome Prof Ralston. To all our stakeholders we thank you for coming and we look forward to your continued support and input as we chart the way forward in developing Namibia’s minerals industry and building a relevant, specialised human resource base. I thank you for your participation and kind attention.

Our Researches Pillars (Niche areas)

