



The Office Of The Principal and Vice - Chancellor

PROF MS MAKHANYA, PRINCIPAL AND VICE CHANCELLOR

UNIVERSITY OF SOUTH AFRICA

UNISA BRICS INTERNATIONAL SYMPOSIUM ON ENERGY, MATERIALS AND INNOVATION 2015

“Collaborating in pursuit of growth and development in research and innovation”

02 March 2016

- Madame Chair, Prof Gugu Moche, Executive Dean: CSET, UNISA
- Symposium Chair, Prof VS Vallabhapurapu, from the Department of Physics, UNISA
- Prof Phakeng, Vice Principal of Research and Innovation
- Members of Unisa’s Executive and Extended Management
- Prof Diane Hildebrandt, University of South Africa
- Prominent speakers at this Symposium:
 - Prof Malik Maaza , UNISA-NRF-UNESCO Chair for Nanotechnology, South Africa
 - Prof Anil Verma, IIT Delhi, India
 - Dr Mohammed Khenfouch, University of South Africa
 - Prof Vaith Sakaran, University of Venda
 - Dr TS Mulaudzi, **Unisa?**
 - Prof Suani Teixeira Coelho, University of São Paulo
 - Prof Igor Polikarpov, University of São Paulo
 - Dr Xiaojun Lu, University of South Africa
 - Prof Nosipho Moloto, University of the Witwatersrand
- Members of the Diplomatic Corps

- Unisa staff and students
- Colleagues and friends from our BRICS partner countries
- Members of organised labour and our student movements
- Distinguished guests, ladies and gentlemen (Protocol list?)

I am delighted to be here this morning and I know that I speak on behalf of Unisa's Council and Executive and Extended Management when I welcome you all very warmly, to this 4th annual BRICS Symposium on "Energy, Materials and Innovation."

The Symposium is a key highlight of Unisa's Research and Innovation week (which is now in its fifth year) and aims to harness the capacities that reside in BRICS, to tackle important national and global questions, produce excellent research, and offer innovative solutions to the complex issues we face in South Africa and elsewhere, especially in the Global South.

Unisa is thus committed to exploring the transnational aspects of the BRICS alignment in order to keep abreast of innovations and advance research across a variety of fields. This year the symposium focuses on innovation in energy and materials that are associated with new emerging energy technologies. The symposium will cover the following topics:

1. Renewable energy and strategies
2. Superconductivity and energy applications
3. Nanotechnology and energy applications
4. Biotechnology for energy, biofuels and waste- energy conversion
5. Hydrogen energy, fuel cells and batteries
6. Nuclear energy and environmental issues
7. International Law and Socio-Economic implications

BRICS countries are marching ahead in the energy sector with new energy strategies and the concomitant rapid development in industry and energy consumption has contributed to levels of breakdown in service delivery in these countries, requiring concerted attention and action towards their resolution. Research and Innovation are seen as *the* means of countering the shortfalls. The need for decisive action generated the impetus towards a collaborative context that entails the sharing ideas and strategies in this very important area of 'energy innovation' in the BRICS countries – hence this very

symposium. The symposium provides opportunities for scientists and other scholars from the BRICS countries get together to present latest developments in energy research and share ideas.

As an academic by training, and now, as the CEO of this mega institution, you will understand my deep satisfaction at the visible evidence of the progress that can be made when vision, mission, strategy and implementation are synergised and driven properly. We not only pluck the fruits of our efforts thus far, but we simultaneously prepare the soil and sow the seeds for the next bumper harvest – we prepare for the future. This Symposium is intended to do all of those things.

On Monday this week I delivered the welcome address at the commencement of Unisa's 5th Research and Innovation week. It was an exciting occasion, which in my view, showcased not only Unisa's vibrant research and innovation, but also, the commitment of our staff and students to being actively involved in the portfolio's activities. I was so pleased to note the depth and relevance of both speakers and topics. The relevance of the programme spoke clearly to the fact that this is a university that is indeed in touch with its environment and context and the people that it serves. So I think it would be appropriate for me to pause here just for a moment, to thank Professor Mamokgethi Phakeng, VP: of Research and Innovation, and her deeply committed staff, for driving this crucial agenda at our university, as well as our Unisa staff for their support of this project.

Unisa's Research and Innovation Portfolio is focused on establishing the University as one of the leading providers of postgraduate programmes in Africa - as a research institution where innovative thinkers can flourish and innovative ideas are rewarded. Driven by a desire to both explore new worlds and to apply new ideas to real-world problems, research at Unisa is not only conducted by academics and postgraduate students - research opportunities are also created for professional and administrative staff, making research a truly university-wide enterprise. We are however, becoming increasingly sensitised to the need for quality, relevant research as opposed to output-driven research and we are of the firm view that quality and relevance should always prevail over quantity. This is the route that we at Unisa will follow. As much as our hearts and our natural inclination long for the freedom and funding that will allow us untrammelled research, we need to be pragmatic and look at ways of channeling those inclinations and passions into research that will contribute more manifestly to our developmental agenda and goals.

We are very pleased with the progress that we have made so far. Our aggressive programme of opportunity, incentivisation and development, especially of young, black and women researchers, is bearing fruit. Our facilities, more notably those at our Science Campus in Florida, are a source of great pride. We believe them to be a national asset - perhaps even a global asset – particularly in the light of this BRICS engagement, and our strategic commitment to co-operative governance and external stakeholder relations.

Our Government has prioritized research as follows:

“Increase research, development and innovation in human capital for a growing knowledge economy, with a particular focus on post-graduate degrees, deepening industry and university partnerships, as well as increased investment into research development and innovation, especially in the areas of science, engineering and technology.

Central to our strategy is the objective of ensuring that the country is committed to sustaining and strengthening long-term research that is transformational, generates new knowledge and can work towards strengthening society and the economy.....¹ “

The White Paper on PSET formalized that priority, asserting both the need for all HEIs to be active in research, as well a kind of stakeholder engagement that is characterized by the sharing of resources and capacities to the benefit of our respective institutions and countries. And it is within that context that our exciting lineup of speakers and topics has been prepared for you today.

Ultimately, we trust that this seminar and this week’s activities, will contribute to the maturation of research and innovation at Unisa and to the growth and development of a body of knowledge that finds greater resonance with who we are and what it is that we are shaping and developing for future generations, in line with our vision to be *the African University shaping futures in the service of humanity*. We are confident that our research collaborations with other research intensive organizations and BRICS countries will provide a platform for institutions to display *their* innovation initiatives as well. It is a win-win situation that allows all of our researchers to enhance their research abilities and effectiveness in the generation of new, context-relevant knowledge.

¹ *Green Paper for Post School Education and Training* (DOHE&T RSA, 2012:44)

This fourth Unisa BRICS symposium is building on the success of the previous ones: providing a platform for our scientists to get together to present the latest developments in research and to share ideas. We are honoured indeed to have scientists from BRAZIL, RUSSIA, INDIA, CHINA and SA (including colleagues from some of our sister institutions) are participating in this symposium and we are equally gratified by the tremendous support that is being shown by the BRICS countries via their ambassadorial staff amongst others.

Allow me to conclude with a quote that has been attributed to Charles Darwin, but which in fact is not a Darwin quote – in fairness I shall therefore attribute it to - *Unknown*.

"In the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed."

I thank you.