## **South African Institute of Physics**

NPO Registration Number: 130-172 NPO

http://www.saip.org.za/

Postnet Suite 165, Private Bag X025, LYNNWOOD RIDGE, 0040, South Africa



Prof. A. Muoranga (President)

Nelson Mandela Metropolitan University - Tel: +27 (0) 41 504 2873 Email:

azwinndini.muronga@nmmu.ac.za

Prof. M.L. Chithambo (Honorary Secretary)

Rhodes University Tel: +27 (0) 46 603 8450 Email: secretary@saip.org.za

Mr. B. Masara (Executive Officer)

Tel: +27 (0) 12 8412627Fax: +27 86 605 0871Email: brian.masara@saip.org.za

**Date:** 18 May 2017

Dear SAIP Member,

## Election of Council for the Term 2017 - 2019

A new Council for the South African Institute of Physics needs to be elected. We will be making use of electronic voting on the OMS system which was successfully used during the year 2015. You are encouraged to participate in this election to help determine your representatives for the SAIP 2017 – 2019 Council.

Below is a list of nominees for the next SAIP Council.

## 1. Election of President-Elect

Nominee: Prof Deena Naidoo

Current Position: Associate Professor, School of Physics, Wits University

**Proposer:** P. Woudt **Seconder:** I. M. A. Gledhill

As only one nomination was received, Prof Deena Naidoo is elected unopposed.

## 2. <u>Election of Secretary</u>

Nominee: Prof Regina Maphanga

Current Position: Associate Professor at the Materials Modelling Centre, University of Limpopo

Proposer: A. Muronga Seconder: I. M.A. Gledhill

As only one nomination was received, Prof Regina Maphanga is elected unopposed.

## 3. Election of Treasurer

Nominee: Prof André Venter

Current Position: Professor and head of the Physics Department, Nelson Mandela Metropolitan

University (NMMU)

**Proposer:** A. Muronga **Seconder**: M.L Chithambo

As only one nomination was received, Prof André Venter is elected unopposed.

## 4. <u>Election of 4 Ordinary Members</u>

Your ballot allows you to vote for four Ordinary Members of Council. Eight nominations were received. Kindly indicate your choice with a mark next to the names **of no more than** four candidates on the online voting system.

The Nominees for Ordinary Member on Council are listed in alphabetical order below. Their brief CVs and Manifestos are attached to this letter.

Nominee: Prof Makaiko Liwiro Chithambo

**Proposer:** Prof I.Gledhill **Seconder:** Prof André Venter

**Current Position:** Honorary secretary of the South African Institute of Physics. He is a Professor of

Physics and head of the Department of Physics and Electronics at Rhodes

University

Nominee: Dr RM Erasmus

**Proposer:** Prof Deena Naidoo **Seconder:** Dr. Robert Warmbier **Current Position:** Senior Lecturer – School of Physics, University of the Witwatersrand

Nominee: Dr John Bosco Habarulema

Proposer: Prof Regina Maphanga Seconder: Prof Deena Naidoo

**Current Position:** Currently serving on SAIP Council as Divisional Representative on Council.

Researcher (since 2013) at the South African National Space Agency

Nominee: Dr Zama T Katamzi-Joseph

Proposer: Prof Regina Maphanga Seconder: Prof Deena Naidoo

Current Position: Researcher at the South African National Space Agency

Nominee: Dr Rudzani Nemutudi

**Proposer:** Prof Azwinndini Muronga **Seconder:** Brian Masara

**Current Position:** Deputy Director, iThemba Labs and IUPAP Associate Secretary General

Nominee: Professor Martin Ntwaeaborwa

**Proposer:** Prof Deena Naidoo **Seconder:** Dr Sam Ramaila **Current Position:** Professor of Physics at the University of the Witwatersrand

Nominee: Dr Iyabo Tinuola Usman

**Proposer:** Prof M M Diale **Seconder:** Prof Regina Maphanga **Current Position:** Senior Lecturer – School of Physics, University of the Witwatersrand

Nominee: Dr. Sahal Yacoob

Proposer: Prof. Patrick Wouldt Seconder: Prof Deena Naidoo

Current Position: Lecturer – Physics Department University of Cape Town

#### 5. Results of the Election

The results of the election will be announced at the Annual General Meeting of the SAIP at the University of Stellenbosch on Friday, 07 July 2017

Yours sincerely

Prof. M.L. Chithambo Honorary Secretary

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## **VOTING INSTRUCTIONS**

Please to login to the SAIP OMS System and cast your vote on or before 23 June 2017.

- 1) Go to the SAIP Online Membership System <a href="http://www.saip.org.za/index.php/component/users/">http://www.saip.org.za/index.php/component/users/</a>
- 2) Use your last login details (If you have forgotten login details just enter your email address then click on either: **Forgot your password?** Or **Forgot your username?**)
- 3) Under User Menu on your left-hand side click on "SAIP Voting System"
- 4) Under Category Select "All" Click on "SAIP Council 2017"
- 5) Click on arrows next to your choice to vote in agreement or against constitutional and by-law changes.

If you have any problem logging in or voting please email: <a href="mailto:brian.masara@saip.org.za">brian.masara@saip.org.za</a>

## **President-Elect**

Nominee: Prof Deena Naidoo

Current Position: Associate Professor, School of Physics, Wits University

#### **Brief manifesto:**

One of the key goals is to work closely with the new President of the SAIP to build on previous and current council's visions/projects to develop Physics in South Africa and expand internationally. This is envisaged to entail many broad areas ranging from: ICSU related matters, interaction with NRF/DST/DHET regarding funding and policy matters, fund raising, marketing, international relations, management of the SAIP Office, conferences /proceedings, strategic areas such as Physics education at schools and universities. This will be achieved in consultation with council and membership with support from parastatal institutions and the private sector.

#### Brief curriculum vitae:

**Publications:** >50 publications (journal articles and conference proceeding) and gave a number of invited, oral and poster presentations at local and international conferences and workshops.

**Teaching Background**: Co-ordinated and lectured undergraduate and postgraduate students with class sizes ranging from small groups of 30 to large classes of 500 in different streams (Physics Majors, Health Sciences, Engineering, Biological and Honours). Internal/External examiner of undergraduate and postgraduate courses including theses and dissertations.

## **Academic Citizenship/Selected Professional Committees:**

- Research member of the DST-NRF Centre of Excellence in Strong Materials (CoE-SM): New Ultra Hard Materials.
- WITS Team Leader for experiments at ISOLDE, CERN, Switzerland.
- Research member of the South-African CERN Program.
- Research member of the Material Physics Research Institute (MPRI), WITS University.
- South African/African representative in the International Union of Pure and Applied Physics (IUPAP) Commission C14 (Physics Education).
- Council Member of the South African Institute of Physics (2015-present).
- Member of the Local Organizing Committee for the first African Symposium on Exotic Nuclei (IASEN2013), Cape Town, December 2013.
- Member of the Scientific Advisory Committee for the International Conference on Physics Education, (Prague, Czech Republic, July 2013), (Cordoba, Argentina, August 2014), (Beijing, China, August 2015) and (Dublin, Ireland, July 2017).
- Member of the Scientific Advisory Committee for the World Conference on Physics Education, (Sao Paulo, Brazil, July 2016).
- Reviewer for NRF Thuthuka and Incentive Grants and Rating Applications (2010-present).
- Reviewer for the South African Journal of Science and Hyperfine Interactions Journal (2010present).
- Reviewer of Conference Proceedings for the International Conference on Physics Education and the South African Institute of Physics (2007-present).
- Co-ordinator of outreach activities for the Centre of Excellence in Strong Materials (2010-present).
  This involves the planning and organisation of a Materials Science Grade 10 Competition (either a

## Video/Essay/Poster submission).

- Initiated the first African Physics Education Network (AfPEN) <a href="http://afpen.saip.org.za/">http://afpen.saip.org.za/</a>.
- Vice-Chairperson elect for IUPAP Commission C14 (October 2017-October 2019).
- Chairperson for the International Conference on Physics Education to be held in Johannesburg, South Africa, October 2018.

## **Secretary**

Nominee: Prof Regina Maphanga

Current Position: Associate Professor at the Materials Modelling Centre, University of Limpopo

#### Brief manifesto:

The growth and development of every nation in the 21<sup>st</sup> century is directly linked to the development of science and technology in that particular nation. Thus, science and technology has a profound effect on nation's ability to compete in global markets. Hence, physics as a science subject contributes to employment, health, human well-being and prosperity worldwide. My mission is to be a South African Institute of Physics agent, by articulating its visions, mission statements, action and business plans with integrity. Also, I believe the institute needs to retain young physicists to enhance its sustainability and prepare them to take part in policy and decision makings for future South African physics community.

#### **Brief curriculum vitae:**

Regina Maphanga is an Associate Professor at the Materials Modelling Centre, University of Limpopo. Also, she is appointed as Junior Associate at the Abdus Salam International Centre for Theoretical Physics in Italy and a Science Advisor for Wiley publishing. Her research focuses on computational modelling of energy storage materials, particularly, lithium-ion and lithium-air battery materials. She combines both classical and quantum mechanical methods to simulate battery materials. She is a member of South African Young Academy of Science and Global Young Academy: the voice of young scientists around the world. She received numerous distinguished national awards for her contribution to advancement of scientific knowledge. She is an ordinary member of SAIP and 10P. Amongst various professional committees she serves, she is a council member for South African Institute of Physics and an international steering committee member for the workshop on women in high performance computing during Supercomputing and International Supercomputing conferences. She made continuous contributions to a number of programmes on promotion of public understanding of science, engineering and technology in SA.

#### **Treasurer**

Nominee: Prof André Venter

Current Position: Professor and head of the Physics Department, Nelson Mandela Metropolitan

University (NMMU)

#### **Brief manifesto:**

I believe in and strive towards living a life of honour. I am driven by a sense of purpose and continually endeavour to be significant. For me this implies sharing my life with the people around me, be it at a social or professional level. , I make myself available to serve on the SAIP Council.

## Brief curriculum vitae:

## **EDUCATION**

1995: PhD, University of Port Elizabeth 1989: MSc, University of Port Elizabeth

1986: BSc Honours, University of Port Elizsbeth

1985: BSc, University of Port Elizabeth

## **EMPLOYMENT**

2015-present: HOD, Physics Department, Nelson Mandela Metropolitan University

2005-present: Associate Professor, Department of Physics, NMMU

2004-2005: Associate Professor, Department of Physics, Vista QniversiS 1996-2003: Senior Lecturer, Department of Physics, Vista University

1993-1995: Lecturer, Department of Physics, Vista University

#### PROFESSIONAL MEMBERSHIPS

- Member of the South African Institute of Physics
- Secretary of the Executive Committee of the Condensed Matter Physics and Material science subgroup of the South African institute of Physics.

## Research activity

- Material Sciences, Electrical Characterization of Semiconductors, Laplace Deep Level Transient Spectroscopy
- Maintain and develop electrical characterization facilities such as Deep Level Transient Spectroscopy and Admittance Spectroscopy
- Supervision of MSc and PhD students in the field of defect characterization in semiconductors

## **Administration:**

- HOD of the Physics department, NMMU
- Serve on a number of committees of Faculty
- Chairperson of the South African Institute of Physics (SAIP 2015) Conference
- Editor of past proceedings of the SACPM

## **Ordinary Member**

Nominee: Prof Makaiko Liwiro Chitambo

**Current Position:** Honorary secretary of the South African Institute of Physics. He is a Professor of Physics and head of the Department of Physics and Electronics at Rhodes University

#### **Brief manifesto:**

I am the current Honorary secretary of the South African Institute of Physics but I will be honoured to continue serving the SAIP as an ordinary member of Council. My main interest, apart from contributing to the running of the institute through Council meetings, is to help ensure that credible standards are being upheld and respected by the SAIP. I hope to do this through deliberations at Council and by serving in, for example, the standards committee of Council.

#### Brief curriculum vitae:

Makaiko Chithambo is the current Honorary secretary of the South African Institute of Physics. He is a Professor of Physics and head of the Department of Physics and Electronics at Rhodes University. He also served as Deputy Dean of Science from January 2012 to June 2013. Dr Chithambo obtained his PhD from the University of Edinburgh in Scotland in 2000 and an MPhil from the University of Sussex in 1994.

Prof Chithambo runs a research group involved with study of point defects in insulators using stimulated luminescence and related techniques. He is a reviewer of numerous journals and has served as guest editor on some. He has been listed as an outstanding reviewer for *Applied Radiation and Isotopes, Radiation Measurements*, and *Journal of Luminescence all published by Elsevier*. He was also listed in 2013 as a most valued reviewer, one of 17 worldwide, by *Radiation Measurements*. He was a member of the Scientific Advisory Committee for the 18th International Conference Solid State Dosimetry held in July 2016 in Munich Germany; he was an Invited Speaker at the International Conference on Luminescence and its Applications, Ankara, Bangalore, India in February 2015, and at the International Conference on Luminescence and ESR Dosimetry, Ankara, Turkey in 2014. Dr Chithambo and his team will host the 15th International Conference on Luminescence and Electron Spin Resonance Dating in South Africa in September 2017. His other professional activities include serving as external examiner of a number of universities in and outside South Africa. Prof Chithambo is C2 rated by the NRF and is a past recipient of the Vice Chancellor's Distinguished Research Award at Rhodes University.

Nominee: Dr Rudolf M Erasmus

**Current Position:** Senior Lecturer – School of Physics, University of the Witwatersrand

#### **Brief manifesto:**

I have been involved with Physics research and Physics-related teaching since my undergraduate degree at the University of Pretoria in 1990. As an experimental physicist in Solid State Physics and Materials Science in academia for the past 16 years, and for a short period before that in industry, I am aware of the importance of mutual support and collaboration between science practitioners to advance knowledge in our chosen field(s) of research. Without this support, and associated networks, productive research is hampered. The importance of the transfer of skills and knowledge, especially to post-graduate students, has also been strongly highlighted through my interactions with these students. I value inter-disciplinary research highly and view the importance of cooperation between different science and engineering disciplines as essential in order to make advances, both in fundamental research and applied fields.

I am responsible for the Raman and Luminescence Laboratory and associated equipment at the University of the Witwatersrand, and have strived, where possible, to make these facilities readily accessible to users both within Wits and from other institutions. The Laboratory has a substantial user group, with 86 users (staff and post-graduate students) making use of the facilities to various degrees during 2016. I am involved in collaborative projects in Physics, Chemistry, Geology and Engineering, where I am responsible for the spectroscopic characterisation and interpretation. I can thus contribute to the business of the Council of the SAIP by drawing on my extensive experience of working with staff and post-graduate students from various disciplines and my deep awareness and appreciation of the importance of networks and people in research.

#### Brief curriculum vitae:

I obtained my MSc from the University of Pretoria in 1996 and thereafter spent two years at the De Beers Diamond Research Laboratory as a Senior Scientist. I subsequently obtained my PhD from the University of the Witwatersrand.

I have been responsible for the Raman and Luminescence Laboratory at the University of the Witwatersrand since 2001, initially as Senior Research Officer, and as Senior Lecturer in the School of Physics since 2013. I have a partial secondment to the Wits Microscopy and Microanalysis Unit (MMU), also since 2013. I have published 65 papers in peer-reviewed journals and 15 papers in reviewed conference proceedings. This has resulted in a Web of Science h-index of 15 (November 2016).

I am one of the lecturing team for first-year Physics for Engineers and also teach a module in Materials Characterisation Techniques for the third-year Materials Science students. I am currently supervising two PhD students.

I have served on the organising committees of several local workshops and conferences, including SAIP 2007 when it was held at Wits University. I have assisted in the organisation of two international conferences held in South Africa. I am currently chairing the organising committee of the third SA Raman Workshop, to be held in Stellenbosch in November 2017. I have volunteered at several Wits University Open Days and have facilitated job shadowing arrangements by aspirant physicists in Grades 11 and 12. I have acted as referee for the South African Journal of Chemistry, Analytical Chemistry, Journal of Applied Physics, Journal of Physical Chemistry, Physica Status Solidi c (conference series), Journal of Alloys and Compounds, Industrial Crops and Products, Physica B and Journal of Raman Spectroscopy. I have acted as external examiner for dissertations and theses from Nelson Mandela Metropolitan University, University of Pretoria, University of Johannesburg, Wits University and University of Stellenbosch

Nominee: Dr John Bosco Habarulema

Current Position: Currently serving on SAIP Council as Divisional Representative on Council.

Researcher (since 2013) at the South African National Space Agency

#### **Brief manifesto:**

John Bosco Habarulema has been a member of SAIP since 2005. He served as chair of the Space Science sub-division of the Astrophysics and Space Science from 2014-2016 and is currently on the SAIP council representing divisions and forums since 2015. It has been a pleasure serving SAIP to shape the future of Physics in South Africa. Given a chance, I will continue to serve the South African Physics community to the best of my ability. This serves as my acceptance for the nomination on the SAIP council from 2017-2019.

#### Brief curriculum vitae:

John Bosco Habarulema is currently a researcher (since 2013) at the South African National Space Agency. He is also a research associate in the department of Physics and Electronics since 2014. He works with postgraduate students at all levels and has been active in SAIP related activities since 2005 as an Honors student. He has served in SAIP leadership positions as the sub-division chair and a council member representing division and forums. It is always a great opportunity to serve our Physics community and am willing to still serve in any capacity.

#### **Ordinary Member**

Nominee Dr Zama Katamzi Joseph

**Current Position:** Researcher at the South African National Space Agency

#### **Brief manifesto:**

I would campaign for student and young/early career scientists networking and mentoring programmes within SAIP conferences. These will serve the students and young scientists to get together and discussion/debate issues pertinent to them. Also, they can be used as a platform for the students and early career scientists to start collaborations early on with their peers. The mentoring sessions should be organises such that well established scientists in different fields (e.g. NRF rated scientists) can engage directly with students and young scientists on various issues, e.g. future aspects as a professional, big questions still needing attention within their particular field.

I would like to see participation in scientific programmes by researchers/scientists outside traditional research/academic institutions (e.g. universities, national research facilities), in particular in my field of space science, atmospheric physics and earth observations fields should be actively seeking to give oral/poster presentations during annual SAIP conference. I think SAIP should encourage different divisions to actively campaign and grow their divisions by introducing fields who have not participated in SAIP.

There should be a greater exposure and activity of WIPiSA (Women in Physics of South Africa) to promote issues relevant to women in the various field supported by SAIP. I would like to see SAIP support a WipISA biennial symposium/workshop.

## **Brief Curriculum Vitae**

#### **EDUCATION**

**University of South Africa (2016) -** Postgraduate Diploma in Business Administration (graduation: date TBC)

## University of Bath, Bath (2007 - 2011)

- PhD Ionospheric Physics (2011)
- Dissertation: Statistical Analysis of Ionospheric Total Electron Content

## Rhodes University, South Africa (2006 - 2007)

MSc -Astrophysics with distinction (2008)

## University of Cape Town, South Africa (2001 - 2006)

- BSc (Hon) Astrophysics and Space Physics (2006)
- BSc Physics (2005)

## Sacred Heart Secondary School, South Africa (1996 - 2000)

• Matriculation Exemption (2000): 6 subjects including English, Mathematics and Physical Science

## **WORK EXPERIENCE**

# Researcher, South African National Space Agency (SANSA), South Africa (January 2012 - current)

 Carry out research in the field of Space Physics. Responsibilities included lecturing MSc Aeronomy course at University of Cape Town (UCT) under the National Astrophysics and Space Science Programme (NASSP), supervising postgraduate students, publishing in peer-reviewed journals, obtaining research funding, and forming collaborations with national and international recognised researchers.

## Postdoctoral Researcher, Hermanus Magnetic Observatory, South Africa

- (January December 2011)
- Carry out research in the field of Space Physics. Responsibilities include assisting with Space Advancement activities, publishing in peer-reviewed journals, and mentoring younger researchers.

## **PUBLICATIONS**

- 1. Katamzi, Z.T., J.B. Habarulema, and N.M. Giday (2016), Daytime twin-peak structures observed at southern African and European middle latitudes on 08-13 April 2012, Annales Geophysicae, 34, 581 590, doi: 10.5194/angeo-34-581-2016.
- 2. Habarulema, J.B., Z.T. Katamzi, P. Sibanda and T.M. Matamba (2016), Assessing ionospheric response during some strong storms in solar cycle 24 using various data sources, Journal Geophysics Research Space Physics, 121, doi:10.1002/2016JA023066
- 3. N. Giday, Z. Katamzi, and L.A. McKinnell (2016), Ionospheric Tomography over South Africa: comparison of MIDAS and ionosondes measurements, Advances in Space Research, 57, 245 256, doi: 10.1016/j.asr.2015.08.017.
- 4. Habarulema, J.B., Z.T. Katamzi, E. Yizengaw, Y. Yamazaki and G. Seemala (2016), Simultaneous storm time equatorward and poleward large-scale TIDs on a global scale, Geophysical Research Letters, 43, 6678 6686, doi: 10,1002/2016GL069740.
- 5. Habarulema, J. B, Z. T. Katamzi and E. Yizengaw (2015), First observations of poleward large scale traveling ionospheric disturbances over the African sector during geomagnetic storm conditions, Journal of Geophysical Research Space Physics, 120, doi:10.1002/2015JA021066.
- 6. Habarulema, J. B., Z. T. Katamzi, and E. Yizengaw (2014), A simultaneous study of ionospheric parameters derived from FORMOSAT-3/COSMIC, GRACE, and CHAMP missions over middle, low, and equatorial latitudes: Comparison with ionosonde data, Journal of Geophysical Research: Space Physics, 119, doi:10.1002/2014JA020192.
- 7. Katamzi, Z.T., and J. B. Habarulema, Traveling ionospheric disturbances observed at South African midlatitudes during the 29-31 October 2003 geomagnetically disturbed period (2014). Advances in Space Research, 53(1), pp 48-62, doi: 10.1016/j.asr.2013.10.019
- 8. Habarulema, J. B., Z.T. Katamzi, and L. McKinnell (2013). Estimating the propagation characteristics of large-scale traveling ionospheric disturbances using ground-based and satellite data, Journal of Geophysical Research Space Physics, 118, pp 7768-7782, doi: 10.1002/2013JA018997

- Katamzi, Z.T., N.D. Smith, C.N. Mitchell, P. Spalla, and M. Materassi (2012). Statistical analysis of travelling ionospheric disturbances using TEC observations from geostationary satellites, Journal of Atmospheric and Solar-Terrestrial Physics, 74, 64 - 80, doi: 10.1016/j.jastp.2011.10.006
- 10. Katamzi, Z.T., N.D. Smith, C.N. Mitchell, and P. Spalla (2012). Analysis of diurnal double maxima observed above Italy during 1975-1991, Journal of Atmospheric and Solar-Terrestrial Physics, 89, 67 75, doi: 10.1016/j.jastp.2012.08.001

Nominee: Rr Rudzani Nemutudi

Current Position: Deputy Director, iThemba Labs and IUPAP Associate Secretary General

#### **Brief manifesto:**

I intend to bring on board the SAIP Council my professional expertise in the field of material science together with my international networks developed through my past and current participation within relevant international bodies such as the IUPAP and ICSU. I have over the years interacted with the SAIP Council through my attendance of the IUPAP-SA National Liaison Committee meetings

#### Brief curriculum vitae:

## **PERSONAL DETAILS**

Name: Dr Rudzani Nemutudi

Occupation: Deputy Director, iThemba LABS

Date of birth: 07-04-1970 Nationality: South African

Highest Qualification: PhD (Semiconductor Physics, University of Cambridge)

Email address: rudzi@tlabs.ac.za

#### WORK EXPERIENCE

- Research Scientist, Materials Research Department, iThemba LABS: 1997
- Post-Doctoral Research Fellow: Cavendish Laboratory: 2002 2004
- Senior Research Scientist: Materials Research Department, iThemba LABS: 2005 2007
- Manager Materials Research Department, iThemba LABS: 2007 2012
- Senior Manager, Physical Science Department, iThemba LABS: 2012 2016
- **Deputy Director**, iThemba LABS: 2017 to date

## I serve on the following scientific bodies and Committees:

- Member of ICSU-SA board
- Member of IUPAP-SA National Liaison Committee
- Member of the Executive Council of International Union of Pure and Applied Physics
- Chair of the Education, Training and Development Committee, iThemba LABS:NRF

## Member of the Employment Equity Committee (EEC), iThemba LABS

Nominee: Professor Martin Ntwaeaborwa

**Current Position:** Professor of Physics at the University of the Witwatersrand

**Brief manifesto:** 

I pledge to uphold the constitution and work to fulfil aims, objectives and programmes of the institute. I will contribute constructively to council discussions, decision-making, and implementation of strategies. I will maintain constructive, collaborative and mutually respectful relationship with other council members. I will demonstrate accountability to the South African Physics community. I will work to improve visibility of the institute by organizing local and international conferences and workshops in South Africa. I will improve membership by recruiting new members to the institute. I will, together with other council members, develop and rollout physics community engagement strategies. I will work with other council members to adapt the physics curriculum to the needs of the labour market thereby increasing employability of physics graduates. I will increase number of divisions and work to ensure that there is social cohesions among these divisions. Finally, I will ensure that the annual conference is always successful, and I will work to improve attendance of both local and international scientists at the conference.

## Brief curriculum vitae:

Martin Ntwaeaborwa is a Professor of Physics at the University of the Witwatersrand in Johannesburg-South Africa. He received his BSc degree, BSc Honours and MSc degrees, all from the Mafikeng Campus of the North-West University in 1997, 1998 and 2000, respectively, and he received his PhD degree from the University of the Free State in 2006. He has served in many capacities with the South African Nanotechnology Initiative (SANi) including President in 2012 - 2016. He was the deputy dean of the Southern African Young Scientists Summer Programme in 2012 - 2015 that was co-organized by the National Department of Science and Technology of South Africa (DST) and the International Institute of Applied Systems Analysis (IIASA). Professor Ntwaeaborwa is the director of the Unesco-Twas Centre of Excellence for the advancement of science in developing countries. His research interests are in luminescent nanomaterials in powder and thin film forms, and their applications in lighting, displays, photodynamic therapy and organic photovoltaics. He has published more than 215 articles and 5 book chapters and more than 100 peer reviewed conference proceeding. He has given numerous invited talks at national and international conferences. In recognition of his work, Professor Ntwaeaborwa received research excellence Awards from the University of the Free State in 2004 and 2010, and young investigator awards from the South African National Science and Technology Forum (NSTF) and the American Vacuum Society (AVS) in 2009 and 2010 respectively.

Nominee: Dr Iyabo Tinuola Usman

Current Position: Senior Lecturer- School of Physics University of Witwatersrand

## **Brief manifesto:**

My name is Iyabo Tinuola Usman, a black female experimental nuclear physicist. I obtained my higher education degrees in Experimental Nuclear Physics, both MSc and PhD at the University of the Witwatersrand, Johannesburg. My work entails performing nuclear physics experiments using light particle beams available at iThemba LABS SSC cyclotron in conjunction with the state-of-the-art K600 Magnetic Spectrometer, analyze the data obtained with sophisticated nuclear models/theories and supervise postgraduate students. To be an ordinary member of the SAIP Council is a privilege and I am determined to contribute to this professional organisation by seeking different ways of doing things because efficient is not the same as effective.

## Brief curriculum vitae:

- 2012 Date: Senior Lecturer School of Physics, University of the Witwatersrand, Johannesburg
- 2010 2012: Postdoctoral Researcher iThemba LABS, Cape Town
- 2005 2009: Tutor School of Physics, University of the Witwatersrand, Johannesburg
- Duties: Teaching, Research and Community interaction

- Degrees:
- 2009 (PhD Physics)
- 2007 (MSc Physics)
- 1998 (BTech Hons Pure and Applied Physics)

Nominee: Dr Sahal Yacoob

Current Position Lecturer- Physics Department, University of Cape Town

#### **Brief manifesto:**

I am a South African Born Experimental Particle Physicist who is committed to continuing to develop and support a strong community of expertise in the physical sciences as a contributor to a stronger South African Society due to the reach of the technological, and intellectual advancements which are born out of these pursuits. The SAIP forms a strong umbrella under which physicists from around the country can learn from, and about each other, and as such forms an important link between Physicists 'on the ground' and other government agencies like the DST and DoHET. As a member of council, I expect to contribute to the continued activities of the SAIP, and ensure that the best interests of the physics community within the greater South African context are pursued.

#### Brief curriculum vitae:

- BSc Hons (Physics) UCT 1999,
- MSc (Theoretical Physics) with distinction UCT 2002,
- PhD (Particle Physics) North-western University, II, USA 2010
- Post-doctoral Fellow Wits 2010 2012
- Lecturer UKZN 2012 2015
- Lecturer UCT 2015 present
- Member of the South African Young Academy of Science from 2015
- Co-Chair of the South African Academy of Science 2017
- Produced a series of posters with WiPiSA to encourage acceptance of Women scientists into culture
- LOC for SAIP 2016 conference, and editor for proceedings.
- Has moved UCT algebra-based physics to an open source text to save costs
- Plenary Speaker at SAIP 2013
- Member on ASSAf's collaborative research consensus panel
- Y-1 Rated