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# SAIP OUTREACH REPORT

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2015-16

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## **1. SAIP Outreach Projects Managed by Hellen Chuma**

### **1.1 School Visits - Molemole municipality, Limpopo Province (Rampo high school – Mphakane, 24 July 2015)**

The most disadvantaged, least performing and less informed schools in the Molemole municipality were visited. All invited schools around Mphakane gathered at Rampo high school. Four schools attended the event namely; Makgato, Tidima, Motlalaohle and Rampo high school.

The main objective was to attract girls into physics and stimulate an interest by showing them that studying physics can be fun. The learners were also enlightened about possible careers in physics and ways to obtain funding to further their studies.



### **1.2 School Visits – Aganang municipality, Limpopo Province (Botsikana Secondary school, Ga-Mashashane, 25 July 2015)**

The most disadvantaged, least performing and less informed schools in our area in the Aganang municipality were invited to the motivational event. Out of the all invited schools, only one school attended the event.



## **2. National Science Week (Charis Missionary Church (Nzhelele, Vhembe District, Limpopo, 07-08 August 2015)**

SAIP was part of the two-day event during National Science Week, 07-08 August 2015. The Soweto Science Centre under UJ organized a two-day event for primary and secondary school learners at Nzhelele, Vhembe District, and Limpopo. SAIP was represented by the Council's President (Prof. Muronga) and Projects Officer (Ndanga). On Friday there were many learners and educators, filling the venue and some waiting outside whereas on Saturday we had many primary school learners and few secondary learners.

The statistics of the two-day event was 2498 learners and 19 educators. Our role was to motivate and encourage learners to do Science. We also inspired them to pursue a career in Science, Engineering and Technology. We gave them careers in science booklets, SAIP pamphlets, periodic tables and science cartoon pamphlets. We also explained about the vision, mission and benefits of SAIP.



## **3. Medunsa BSc Career Fair**

SAIP was part of Sefako Makgatho Health Sciences University (SMU, formerly MEDUNSA) and Multi Success Solutions (MSS) 2015 annual BSc Career fair that was held on the 15th August. The number of student who formed part of the science expo was 852 in total plus guests, management of the institutions and members of the interim council.

The purpose of the Seminar was to inform Science students at Sefako Makgatho Health Science University about the Science Industry and outline possible opportunities available to graduates and also expose them to companies that offer sponsorship, bursaries, internships etc.

At the seminar other professionals and companies relevant to the science industry were also present. For each company that come to the colloquium, they were given an equal opportunity to present and exhibit what they offer to the students.



#### **4. Eskom Science Expo (UJ Soweto Campus, 29 August 2015)**

SAIP was invited at the Eskom Expo For Young Scientists, Gauteng South Regional Finals, that was held on Saturday 29<sup>th</sup> of August 2015 at UJ, Soweto Campus. The Eskom Science Expo was a good platform for us to tell learners about careers in Physics and our projects such as the Teacher Development Workshop.

As we had an exhibition stand at the event we also handed out career booklets and telling the learners about the benefits associated with SAIP membership.



## 5. Limpopo Visits

The president of the SAIP Council suggested we do multi activities at Limpopo for two days, 07-08 September 2015. The delegates were Prof Azwinndini Muronga (SAIP president), Prof Regina Maphanga (Marketing, Outreach and Public Understanding of Physics chair), Mrs Rene Kotze (NIThep Communications Officer) and Ndanganeni Mahani (SAIP Projects Officer). The delegates visited Mbilwi Senior Secondary in Sibasa, University of Venda, Belemu Primary School and Makakavhale Secondary School in the rural villages of Lwamondo, the next day followed by University of Limpopo (Turfloop Campus). The activities were as follows:

### 5.1 Mbilwi Senior Secondary School

SAIP delegates went to Mbilwi Senior Secondary on the 7th of September 2015 to hand over a SAPHO (South African Physics Olympiad) second position Silver Award to HY Mathivha.



### 5.2 University of Venda

From Mbilwi we went to the University of Venda's Physics Department to talk to undergraduate students.



### 5.3 Belemu Primary School



**Fig 5. Prof Muronga engaging with the learners.**

### 5.4 Makakavhale Secondary School

At Makakavhale the SAIP delegates addressed the Grade 10-11 learners as the other learners were writing their exams.



**Fig 6. Makakavhale Secondary school.**

### **5.5 University of Limpopo (08 September 2015)**

SAIP delegates visited the University of Limpopo, Turfloop Campus and addressed physics undergraduate students about SAIP, career and bursary opportunities in Physics.





## 6. Scifest Africa 2016 (Grahamstown, 02 – 08 March 2016)

Scifest Africa, South Africa's National Science Festival is a project of the Grahamstown Foundation supported by DST. It is an annual event established in 1996 to promote the public awareness, understanding and appreciation of science, technology, engineering, mathematics and innovation.

SAIP was part of the 7-day event where we were addressing learners, teachers, undergraduates and the general public about SAIP membership and its activities. We were marketing and improving public understanding of physics thus increasing the impact, visibility, awareness and footprint of SAIP. We also did demos on electrolyte and plasma globe. We handed out careers in physics booklets, SAIP pamphlets, science cartoon pamphlets and SAIP branded materials. The opportunity also allowed us to provide career guidance and network with other organisations having the same vision as us.

In our stand we were assisted by Angel Nyirenda, who is a PhD student at Rhodes University under the supervision of Prof Makaiko Chitambo (SAIP Council Secretary). We came back with more than 200 E-members ranging from primary learners, high school learners, educators to undergraduates.



## Statistics

Impact (persons reached): 7186

Average contact session duration: 1h20 min

Specific Individual Contact: 30 min

Weighted Impact (time in hours x no of persons): 9342 learner hours

Market Segment Distribution: 73% secondary, 9% primary learners, 2% teachers, 0.3% university staff and 16% university students

Learner level distribution: 11% Grade 1 – 7, 89% Grade 8 – 12

Race: 2% white, 98% non-white

Gender: 49% female, 51% male

<b>Total Number of Educators</b>	<b>140</b>
<b>Total Number of University Staff</b>	<b>21</b>
<b>Total Number of University Students</b>	<b>1163</b>
<b>Total Number of Secondary Learners</b>	<b>5232</b>
<b>Total Number of Primary Learners</b>	<b>630</b>
<b>Grand Total</b>	<b>7186</b>

## Scifest Statistics

**The 7day event offered 56,425 visitors, an interactive programme consisting of 65 exhibitions and 706 events including 33 lectures, 477 workshops, and 196 other events presented by 328 contributors from 84 organisations in South Africa and five other countries, and received media coverage to the value of ZAR 5,6 million from 1 January - 31 March 2016.**

## SA Institute of Physics (SAIP) Report: Indaba & Exhibition (UNISA Florida Campus)

**Report by:** Ndanganeni Mahani  
**Report Edited by:** Juan Grey  
**Event:** Student Indaba and Exhibition  
**Persons involved:** Ndanga and Juan

**Date:** 22/04/2016  
**Date:** 29/04/2016  
**Duration:** 5 hours

### General Description of Event

SAIP took part in the Science Engineering and Technology Student Association (SETSA) Student Indaba and Exhibition at the UNISA Florida Campus. The two purposes of the event were:

1. To address issues between the university, students and the university management;
2. To inform SETSA students about the Science Industry, outline possible opportunities available to graduates and also expose them to companies that offer sponsorship, bursaries, mentorship, career guidance etc.

The event was attended by the two branches of SETSA (Johannesburg and Pretoria respectively).

### Role at Event

Our main objective for the event was to make the students of UNISA aware of what SAIP is about and how they can benefit from the different projects within our organization with the intended purpose of motivating and encouraging these students to continue studying physics up to a postgraduate level. We have informed students about the events and conferences we host. We distributed Study Physics booklets, SAIP information pamphlets, Women in Physics (WiPiSA) pamphlets and biophysics booklets. We also explained about the vision, mission and benefits of joining SAIP.

At the seminar other professionals and companies relevant to the science industry were present. Each company that attended the event, were given an equal opportunity to interact and exhibit what they had to offer.

### Comments, feedback, etc.

**Ndanganeni:** The students were excited about SAIP and were eager to join the free e-membership. They were also inspired by the SAIP annual conference that is held in a different university each year and the upcoming CCP2016 Conference that we are hosting in July 2016. The event was a success.

**Juan:** The outreach event was a great success. Many students were eager to learn more however it came to our attention that most students are within the field of Engineering rather than physics which slightly discouraged students to join the SAIP.

### Statistics

Impact (persons reached): 107  
Average contact session duration: 30  
Specific Individual Contact: 15  
Weighted Impact (time in hours x no of persons): 53.5  
Market Segment Distribution: 90% students, 6% staff, 4% public  
Learner level distribution: undergraduate, % postgraduate **unknown**  
Race: % non-white, % white **unknown**  
Gender: % female, % male **unknown**

Photos









## **SAIP Outreach Report: Sciencetube Science Beyond Borders Festival (Thohoyandou Indoor Sports Centre)**

**Report by:** Ndanganeni Mahani  
**Event:** Sciencetube Exhibition  
**Persons involved:** Ndanga

**Date:** 09/05/2016 to 13/05/2016  
**Duration:** 5 days

### **General Description of Event**

SAIP took part in the Sciencetube 'science beyond borders' Festival at Limpopo, Thohoyandou. The kind of exhibition that was offered was found to address the most challenges in teaching, learning and communicating science. Working back and forth between the creation of thoughts and the evaluation part. Working out ideas using previous experiences of the way that the community welcome and appreciate science in their daily lives.

Sciencetube mission is to stimulate national interest, knowledge, and appreciation of science, engineering technology and life-style (skills) through hands-on activities, theatre, comedy, motivational talks, talk-shops and many more; to increase successful student access and entry to the STEMI (science, technology, engineering, mathematics and Innovation) career pipeline; and to demonstrate the importance of scientific discovery and engineering prowess to solving humankind's grand challenge

### **Role at Event**

Our main objective for the event was to make the students of UNISA aware of what SAIP is about and how they can benefit from the different projects within our organization with the intended purpose of motivating and encouraging these students to continue studying physics up to university level. We have informed students about the events and conferences we host. We distributed Study Physics booklets, SAIP information pamphlets, Women in Physics (WiPiSA) pamphlets and biophysics booklets. We also explained about the vision, mission and benefits of joining SAIP.

At the exhibition other professionals and companies relevant to the science industry were present. Each company that attended the event, were given an equal opportunity to interact and exhibit what they had to offer.

### **Comments, feedback, etc.**

The students were excited about SAIP and were eager to join the free e-membership. The learners were Ranging from primary to secondary level, they were accompanied by educators and the general public. The learners were excited about the SAIP Facebook page and some created a WhatsApp group called 'Young Scientists' to address the challenges they face in the classroom and to motivate each other to read

### **Statistics**

Impact (persons reached): **4070**

Average contact session duration: **45**

Specific Individual Contact: **30**

Weighted Impact (time in hours x no of persons): **2035**

Market Segment Distribution: **70%** learners, **10%** educators, **20%** public

Learner level distribution: primary **20%**, **80%** secondary

Race: **100%** non-white, **0%** white

Gender: **53%** female, **47%** male



Photos

