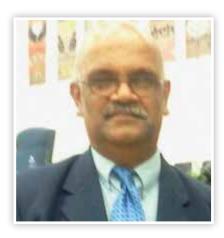
The Association for Mathematics Education of South Africa

#### DECEMBER 2014 VOL. 55

#### From the President's Desk...



AMESA is a very important and powerful professional organisation in South Africa. Although we have a very significant national profile, our real work takes place in our regions. In this regard, our activities in our branches and regions should be able to draw current members and entice new members. Our activities have grown in the past few years. We have been reviewing Grade 12 Mathematics and Mathematical Literacy papers since 2009. We have been reviewing grade 9 Mathematics ANA papers since 2013. In 2014 we extended the ANA review to grades 3 & 6. Our reports on the various papers are held in high esteem by the Department of Basic Education (DBE)

and have been passed on to both the DBE and UMALUSI exam panels/moderators for consideration. 2015 promises to be another busy year for AMESA. Most of our regions will be having their conferences before July so I would like members to be on the lookout for notices of these conferences and other regional activities.

We would like to introduce our National office bearers.

#### Editor's Comment...



This issue of AMESA News shares information about activities at national, regional and branch levels. It introduces the new office bearers and regional representatives. AMESA work is voluntary. As such branch, regional and national council members work very hard when arranging activities for AMESA members. In this issue we share lessons learned and reports from two branches (Umlazi and Tshwane) where members worked hard in 2014 organising activities for AMESA members.

Should you like to comment or make suggestions, please contact me at <a href="mailto:vicepresident@amesa.org.za">vicepresident@amesa.org.za</a>.

Enjoy reading! VG Govender

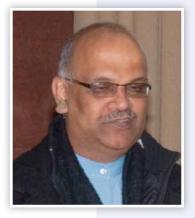
## Contents

From the President's desk	1
Editor's comment	1
AMESA National Office Bearers	2
Changes to the National Council	3
Lessons learned from a 'successful' Umlazi AMESA branch	5
Geometry teachers draw the line!  AMESA Gauteng (Tshwane Branch)  Workshop Report	12
Report of Congress 2014	17
Minutes of the AGM 2014	25
National Council Report	27
Financial Statements	32
Congress 2015	37
AMESA Regional Activities	38
Notice of South African Mathematics Challenge and South African Mathematics Olympiad	38
Obituary	38
AMESA National Council	39



#### AMESA National Office Bearers 2014 - 2016

We would like to introduce our National office bearers.



#### **PRESIDENT:**

**Vasuthavan (also known as Nico) Govender** has been a member of AMESA since 1993. He has served in several positions within AMESA:

- Member of Port Elizabeth Branch Executive Committee 1994 2009
- Secretary: AMESA PE 1996 1997
- V. Chairperson: AMESA PE 1997 2003
- Chairperson: AMESA PE 2003 2009
- Chairperson AMESA Eastern Cape: 2009 -2013
- AMESA Coordinator of the Curriculum committee since 2003
- AMESA Coordinator of Maths Week 2010 -2012
- Congress Director: Congress 1999 & Congress 2008
- Vice-President AMESA 2012-2014

Vasuthavan completed his doctorate in Mathematics Education in 2007 and has served on two DBE committees for Mathematics. His various positions include high school mathematics teacher, College of Education lecturer; Subject Advisor (Mathematics FET); Lecturer: Mathematics in the Faculty of Science (NMMU); Senior Lecturer: Mathematics & Science Education, (University of Fort Hare) and now Deputy Chief Education Specialist in the Port Elizabeth District. Vasuthavan gathered information on the history of AMESA and chaired the Panel discussion "Twenty years of AMESA" at the AMESA National Congress in Cape Town in 2013. He also chaired the panel discussion on "Is the New CAPS curriculum delivering" at the AMESA National Congress in Kimberley in 2014. He is a member of the SAMF Advisory Council on Mathematics (ACM), having served as its chairperson from 2012 till 2014.



#### **VICE-PRESIDENT:**

Busisiwe Goba is a member of AMESA since 1993.

She has served in several positions within AMESA:

- Member of KZN AMESA Council 2010-2011
- Chairperson of KZN AMESA 2011-2013
- KZN regional representative in the AMESA
- National Council 2011-2014
- Member of SANCIMU 2012-2016
- South African representative to IMU 2012-2016
- Vice-President AMESA 2014-2016

Busisiwe Goba started teaching school mathematics in 1992 and was promoted to Head of Department in 1996.

She is currently a lecturer in Mathematics Education in the School of Education at the University of KwaZulu-Natal.







#### **SECRETARY:**

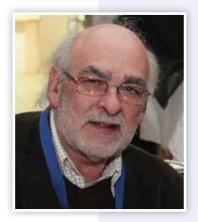
Gary Powell has been a Mathematics Education Specialist at the Schools Development Unit at UCT for more than ten years. Much of his working time is dedicated to presenting courses and workshops for in-service teachers, combined with supporting teachers in their classrooms, and developing learning and teaching materials for teachers in the GET Band. Gary remains an active member of the AMESA Western Cape council, where he strives to continue to make thoughtful and effective mathematics teaching common practice in all classrooms.



#### TREASURER:

Rajendran Govender is currently a Senior lecturer in Mathematics Education in the School of Science and Mathematics Education in the Faculty of Education at the University of the Western Cape. Rajendran started teaching high school mathematics in 1985 and was promoted to a College mathematics lecturer in 1995. In 2002 he became a subject advisor of Mathematics in KwaZulu-Natal. In 2003 he joined the University of Limpopo as a Mathematics education lecturer, and in 2008 took up the post of Mathematics education lecturer at UWC.

Rajendran is a member of SAARMSTE, UMALUSI external moderator for mathematics, and he represents AMESA on the SAMF Advisory Committee on Mathematics. He is also an associate editor of the Pythagoras journal. He completed his doctorate in Mathematics Education in 2013. He was also the Director of 2013 AMESA Congress.



Alwyn Olivier has been the President of AMESA from 2012 to 2014. The AMESA National Council and AMESA members wish to express their heartfelt gratitude for the contribution that Alwyn has made to the association.

Alwyn leaves the office with the legacy of introducing a better system for registering Congress delegates. He also leaves a legacy of an online Pythagoras journal. Thank you, Alwyn for your selfless contribution to the growth of AMESA. However, his talents have not been lost to AMESA.

He has been co-opted onto the National Council (2014-2016).







Isaiah Shabangu served as the National Secretary from 2010 to 2014.

He has over the years actively participated at various levels in the Mpumalanga region. AMESA would like to thank Isaiah for the hard work he has done for the association as the secretary.



**Mzwakhe Sokutu** joined the National Council in 2014 as the Eastern Cape regional representative. He replaced **Wandile Hlaleleni**.

Mzwakhe is a Mathematics teacher at Phakama Primary School in Zwide, Port Elizabeth.



**Peace Mojaki** started serving in the National Council in 2014 representing Northern Cape region. He replaced **Jeffrey Thomas** who took up a position at SAMF.

Peace is a high school Mathematics teacher in Kimberly.



Vimolan Mudaly joined the National Council in 2014 replacing Busisiwe Goba as the KwaZulu-Natal regional representative. Vimolan is a Senior lecturer in the mathematics education discipline at the University of KwaZulu-Natal.



**Desiree Timmet** has since joined the National Council as a Western Cape representative in the place of Gary Powell who is now our National Secretary. Desiree is a Western Cape Provincial representative for Maths4stats





## Lessons learned from a 'successful' AMESA Umlazi branch

By Alfred Msomi; Vukile Buthelezi and Sibusiso Khanyile

'Quality is never an accident, it is always the result of high intention, sincere effort, intelligent direction, skilful execution; it represents the wise choice of many alternatives' (Willa A Foster). The quality of our education will be determined by the quality of educators we have in the system and such quality cannot be stagnant informed by level of formal education acquired but should change and adapt to the demands of the changing times. It is therefore relevant that professional bodies play a pivotal role in ensuring that the quality of teaching and learning improves constantly and consistently as the times dictate. AMESA at this level has an advantage of being relevant and specific to the needs of mathematics teachers. The speeches, workshops and presentations by experts and educators respond to the holistic development of educators who are in control of the changing times. The opportunity for educators to have discussions in commissions and present to other educators in the conference shows how conferences seek to be more than just a talk show but instead extend the discussions to real applications in the classroom.

It is a known fact that the teaching and learning of mathematics faces many challenges in South Africa. The poor showing in international tests and the dismal performance in matric exams continues to pose questions to the way we teach and how our curriculum is organise. It is the responsibility of the professional bodies like AMESA and many other organisations operating in the space of promoting and improving mathematics education to constantly seek innovative ways to enhance the teaching and learning of mathematics. 'Coming together is the beginning, keeping together is progress, and working together is a success...' (Henry Ford). With that said, this is the story of AMESA Umlazi branch.

AMESA Umlazi branch was launched in September 2011 at Lamontville Education Centre. Mr L.O.V Buthelezi (SES Mathematics-Umlazi District) approached few educators and brainstormed the issue of coming up with a programme to enrich and capacitate educators. AMESA Umlazi branch was then formed in the district. The KZN AMESA Council was there to launch and preside over the elections for the branch leadership. Busisiwe Goba was chairing the meeting and four branch executive members were elected for different portfolios.

There were about 70 educators from high schools around Umbumbulu, Umlazi, Phumelela and few from Chatsworth in the launch of AMESA Umlazi Branch in 2011. The committee then began to work. They met in November 2011 to draft the programme for 2012 which was as follows:

- One teacher content enrichment per term sponsored by SAICA for food and material development.
- > One Umlazi branch conference held at Lamontville Teachers Centre from the 13.15 November 2012. About 150 high school educators attended.



From left to right Mr Siphiwe Msimango (Secretary), Mrs Madonsela (Deputy Chairperson), Mr Sbu Khanyile (Chairperson), Mr L.O.V Buthelezi, Prof Alfred Msomi and Ms Zandile Msimango



#### Details of 2012 Umlazi Branch Conference at Lamontville teachers' centre

#### Programme for DAY 1

Activities	Presenter / Facilitator	Times	
Registration	Committee Members	8h00 - 8h30	
Opening & welcome	Director: Mr B.H. Ntuli	8h30 - 8h45	
Key Note Address	Chair AMESA: Busisiwe Goba	8h45 - 9h15	
Provincial co-ordinator	Dr Hlongwa	9h15 - 9h45	
Higher Education Institution	Dr V. Mudaly	9h45 - 10h15	
Tea Break 10h15 - 10h30	Tea Break 10h15 - 10h30		
Stats SA	Lazi Mtwa	10h30 - 11h00	
SAICA	Xolela Sohuma	11h00 - 11h30	
How to use Maths Dictionary	Oxford : Tosi Maphanga	11h30 - 12h00	
Professional Teacher Development in mathematics	Themba Mthethwa (CASME)	12h00 - 12h30	
Lunch 13h00 - 13h30			
ROUND 1			
Probability	Mr Lusanda Mkwenkweni	13h30 - 15h30	
Geometry	Mr Gona Murugan	13h30 - 15h30	
Nature of roots	Mr D.D. Krupandan	13h30 - 15h30	

The conference started as planned with the registration at 8h00 and the opening welcome by Mr Cele from the director's office Umlazi District. The keynote address was delivered by Dr Vimolan Mudaly with Ms Busisiwe Goba the chairperson of AMESA (KZN) taking the role of introducing the keynote speaker and giving the history of AMESA to delegates. After the keynote address Mr Dumisani Sibaya from SADTU Education Desk took to the podium and talked about a number of issues with respect to the teaching and learning of mathematics and pledged his support to the conference. Next on the podium was Mr Phillip Dikgomo who was the director of MST in the provincial education department. Different speakers made their presentations as per programme attached





#### **DAY TWO**

#### Part One and Two

The first two parts of day two were allocated for completing subject content workshops that started in the last session of day one. The arrangement was that delegates move to the next topic for two hours until all topics have been attended.

#### Part Three

The final part of day three grouped the delegates (educators) into three commissions and each discussed one of the three topics and then presented to all delegates.

#### Programme for DAY 2

Registration	Committee members	8h00 - 8h15	
ROUND 2	ROUND 2		
Probability	Mr Lusanda Nkwenkweni	08h15 - 10H15	
Geometry	Gona Murugan	08h15 - 10H15	
Nature of roots	D.D. Krupandan	08h15 - 10H15	
Tea Break 10h15 - 10h45			
ROUND 3	ROUND 3		
Probability	Mr Lusanda Nkwenkweni	10H45 - 12H45	
Geometry	Gona Murugan	10H45 - 12H45	
Nature of roots	D.D. Krupandan	10H45 - 12H45	
Lunch 12h45 - 13h30			
Commissions	Group leaders	13h30 - 14h30	
Presentation	By commissions	14h30 - 15h30	

The workshops ended before lunch and just after lunch the group of educators in the three rooms formed commissions and discussed the one of the topics they learnt. After the discussions each group chose a leader who then led the presentation of their topic to all other educators the next day.





#### **DAY THREE**

The final day of the conference had three workshops as day two but these were for one hour instead of two hours. The workshops focussed on three topics:

- 1. Problem Solving presented by Mr Sithembiso Khanyile, Maths advisor for UGU District and Deputy Chairperson of AMESA in KwaZulu-Natal.
- 2. Sketch Pad presented by Prof M De Villiers from University of KwaZulu-Natal.
- 3. Using a Casio Calculator present by Lauren Izaacks.

#### Programme for DAY 3

Registration	Committee members	8h00 - 8h15
Sketch pad / Problem Solving/Casio	Prof M DeVilliers / Sthe /Lauren	8h15 - 9h15
Sketch pad / Problem Solving/Casio	Prof M DeVilliers / Sthe /Lauren	9h15 - 10h15
Tea Break 10h15 - 10h30		
Sketch pad / Problem Solving/Casio	Prof M DeVilliers / Sthe /Lauren	10h30 - 11h30
Lucky Draw & Evaluation	Casio / Committee Members	11h30 - 12h00
Closing Remarks	Dr V.Mudaly	12h00 - 12h15
Lunch 12h15 - 13h00		

The three sessions were quite valuable with most delegates feeling that more time should have been given to this part of the conference as it extended beyond the classroom matter. Particular praise was given to the Problem Solving Session which afforded educators an opportunity to reflect on how they teach and why in many cases are the results not forthcoming.

#### 2013 CONFERENCE

#### Part One

The conference was spread over three days with about 8 hours (08:00 - 15:30) for each day. The first day comprised speeches from Mangosuthu University of Technology, AMESA regional chairperson, stakeholders from department of basic education, and experts from higher education (University of KwaZulu-Natal and MUT).

#### Part Two

The second part of the day looked at the different resources including that can be used to enhance mathematics in the classroom. The speakers came from Statistics South Africa, South African Institute of Charted Accountants (SAICA) etc.

#### Part Three

The final part of the day saw the first mathematics workshops taking place in three rooms covering Geometry, Nature of Roots and Probability.

In 2013 the branch started to grow immensely as the result of the previous conference whereby many teachers joined AMESA Umlazi branch. We hosted more than 250 delegates in this conference. We started involving teachers from Primary schools. We saw the increase of membership as many teachers began to recognise AMESA. It was after this conference where we decided to start the two day's workshop for teachers from grade 1 to 12 seeing the number of primary school's educators willing to take part in mathematics workshops. In 2013 we also started the learner intervention whereby we had Saturday classes sponsored by SAICA. Putting together such conferences and workshops is a costly affair and a logistical nightmare, it is the generous giving hands of our





sponsors and the helping hands of many special individuals that made our branch a success. The improved attendance levels also show how many educators attached value to the conferences and workshops, looking forward to better years ahead.

'Coming together is the beginning, keeping together is progress, and working together is a success...' Henry Ford.

#### 2014

This was one of the most successful year for the branch. The number of learners attending Saturday classes increased to 350. Mathematics, Physical Science, Accounting and English were offered in these Saturday classes. The Mathematics workshops for teachers were attended by more than 370 educators from all schools around Umlazi. The AMESA Umlazi branch conference was also attended by 350 educators and it ended with the Gala Dinner.

The objectives of the AMESA Umlazi branch are in line with the constitution of AMESA and are listed below:

- To promote maths education and in particular to enhance the quality of teaching and learning of mathematics.
- Providing forums for teaching of mathematics at all levels.
- Introduce educators to the benefits of using technology in the classroom.

#### **FEEDBACK FROM DELEGATES**

Apart from informal feedback in the corridors of the conference, the delegates completed an evaluation questionnaire at the end of each conference. They had to score seven points, from the organization of the conference to whether the conference has contributed positively to them as educators, out of five.

More than 80% of the delegates responded in the region of four and five which is Agree and Strongly Agree affirming that the conference contributed positively to educators and they felt everything was properly organized and presented. The majority of educators indicated that the conference needs more time and there should be continuous support for educators during the course of the year.

Our sincere gratitude goes to all that supported our conferences, workshops and learner interventions with special mention to Umlazi District Office and Mangosuthu University of Technology as well as relentless support from Prof Alfred Msomi, Dr V Mudaly, Busisiwe Goba, Daniel Krupanandan, Xolela Sohuma (SAICA), Ithala and all the people and stakeholders who contributed to the success of this branch.

The work done by the branch committee is applauded,); Mr Sbu Khanyile-Lamontville (Chairperson), Mr Vukile Buthelezi (Vice Chairperson); Ms Zandile Langa- Phambili (Treasurer); Mr Sphiwe Msimango -Mkhumbi (Secretary); Sthe Madonsela- Makhumbuza (additional member).

The conferences and workshops would have not been a success without a generous hand from sponsors and supporters. These generous sponsors include:

- SAICA Xolela Sohuma and for ensuring that our relationship will last.
- AMESA KZN and National leadership
- Ithala
- Shooter and Shuter
- MUT Prof Msomi, Dr Makua, Vernon Ariyan, Mr Small and Mrs Ngidi
- UKZN Dr V Mudaly and Busisiwe Goba
- Director Umlazi District Mr B.H. Ntuli
- Department of Education officials especially mathematics subject advisors.
- Maths Ace Nishi
- · Maths Centre Dumisani Mdaka
- All book publishers
- Profile Creations Steve Adams
- Vula Sue Southwood and Ann Mc Loughan
- Pearson Sanelisiwe Ngubane and Nitesh Ramlagan
- Transnet Busi Mgabhi
- CASME Thami Mahlobo

In conclusion, looking back at the three day's conferences for the past three years, one is tempted to be proud of what has been achieved but then reality sinks in; this is just the scratch on the surface, much more work needs to be done. This leading role has taught all of us that Rome was not built in one day; there is more we can achieve given more time and more resources. The





response of educators, speakers and facilitators as well as support from like-minded organisations has affirmed the need for more collaboration and innovation.

#### A Plenary session









## AMESA Umlazi Branch AGM



Sibusiso Khanyile (Umlazi Branch Chairperson)



Sthandiwe Dimba (Ithala Bank), Dr Makua (MUT), Xolela Sohuma (SAICA), Dr Vimolan Mudaly (UKZN)







AMESA Vice-President (Busi Goba), Vimolan Mudaly (KZN Regional Rep), Vukile Buthelezi (Umlazi Branch Exec Member) with other AMESA members at the Umlazi Branch Gala dinner

Geometry
teachers draw
the line!
The AMESA
Gauteng (Tshwane
Branch) Geometry
Workshop Report

Compiled by Caroline Long



Teachers enjoying music by Thulani Ga Ndlela at the Umlazi Branch Gala dinner

#### Introduction

The idea for a set of geometry workshops across all the phases arose in a discussion after the 24th August 2013 Launch of the Tshwane Branch and Mini Conference. In 2013 our main activities were the Mini Conference (August) and the Review of the

Matric Examination papers (November). The plan for 2014 was a set geometry workshops early in the year, one month into the school year.





## The Tshwane Committee (with support)

The organisational structure of AMESA means that we are connected with, and dependent on, the Gauteng Regional structure and the national structure for support, both administratively and financially. We are also dependent on the University of Pretoria for support, both with supporting financially, allowing us to use the university facilities on Groenkloof Campus for meetings and the Mamelodi Campus to hold the workshops, free of charge, and hosting the guest speaker.

Involved in the work of the Tshwane Branch are the following.

AMESA Gauteng	Khangelani Mdakane (Chairperson Gauteng)
	Nombulelo Mandindi (Administrative Secretary)
	Rencia.Lourens (Regional Committee)
	Elspeth Khembo (RADMASTE and now DBE)
AMESA Gauteng (Tshwane Branch)	Caroline Long (Chair, Tshwane Branch) (University of Pretoria)
	William Chauke (Deputy Chair) (Umalusi)
	Thania Meiring (Secretary) (Intermediate Phase Teacher)
	Trevor Dube (FET Teacher, Atteridgeville)
	Batseba Mofolo-Mbokane (University of Pretoria)
	Ishaak.Cassim (GDE)
	Gift Mfiki Ndaba (GDE)
	Johann Engelbrecht (University of Pretoria)
	Ronél Paulsen (UNISA)
	Fatima Cassim (Intermediate Phase Teacher)
	Heidi Julies (GDE)
	Shirley Mpanyane (Foundation Phase Teacher)
University of Pretoria	Johann Engelbrecht (Professor, Mathematics Education)
	William Fraser (Professor, Head of Department, Science, Mathematics and Technology Education)
University of Pretoria (Mamelodi Campus)	Edwin Smith (Director, Mamelodi Campus, University of Pretoria)
	Regina White (Coordinator,
SAMF	Johann Engelbrecht; Thabo Ramaboea; Ellie Olivier
CASIO	Mirriam Mafojane
SHARP	Nicole Sengers
GDE	Pranay Devchand





#### Planning the programme

The workshops were planned for an extended period, three hours, with a tea break in the middle. The reason for this was to allow teachers to really engage with the concepts and to be given time to explore, discover and to discuss geometry.

We approached presenters who had a special interest in geometry and who were experts in the field, even internationally known. In some cases the particular workshop approach was not followed. We trust however that the teachers who presented and attended both learned from the experience. See the attached programme.

FET Grade 11/12	Intersen Grade 6/7	Foundation Phase
Gerrit Stols (UP)	Cheryl Bleeker (Teacher, Private School)	Sandra van Niekerk (Independent consultant)
Trevor Dube (FET Teacher)	Regina White (UP)	Shirley Mpyane (Foundation Phase Teacher)
FET Grade 10	Senior Phase Grade 8/9	Intermediate Grade 4/5
Michael de Villiers (UKZN)	Erna Lampen (Wits)	Fatima Cassim
William Chauke (Umalusi)	Hendrik de Kock (Independent consultant)	Thania Meiring
		Marina Viljoen
		Shamila Karriem
		Veronic Mokgaetsi
		(Intermediate Phase Teachers)

#### The workshop arrangements

Most of the workshop arrangements were managed by Regina White. She arranged with the Mamelodi Campus (University of Pretoria) for venues, IT support, special arrangements for Michael de Villiers' online requirements, uploading Gerrit Stols' workshop. She also negotiated the lunch with the Mamelodi caterers, and liaised with SAMF about the payment.

Nombulelo Mandindi managed the registrations and dealt with the queries from teachers and schools. Khangelani Mdakane, Elspeth Khembo and Rencia Lourens from the Gauteng office gave their support.

On the morning the registration went fairly smoothly, with Regina White, Thania Meiring, Trevor Dube and William Chauke assisting Nombulelo with the late registrations.

## The Programme

Khangelani welcomed everyone. Johann Engelbrecht welcomed the teachers and reminded them that mathematicians always ask questions and that there is so much that they do not know. He introduced Michael de Villiers. Michael shared with the teachers that he had been given the almost impossible task of taking the audience through geometry from Grade 1 to matric. Well, it was not impossible for Michael - he gave an insightful presentation which was evidence of his vast experience and knowledge. The workshop presenters would then build on his presentation in the separate workshops.

#### Highlights of the Workshops

The numbers in the workshops ranged from 20 to 40. The total number of participants was 190, including presenters and committee members.

Foundation Phase: Sandra van Niekerk took charge of the Foundation Phase group where there were about 30 participants. Her presentation was a mixture of sharing research findings, dialogue and hands-on experience.

Intermediate Phase (Grades 4/5): This workshop was different from the others in that each of the presenters presented a different aspect of geometry. Though the presentations were good, the presenters did not involve the teachers enough in "minds-on" and "hands-on" activity.

Intersen (Grades 6/7): Cheryl Bleeker: "I encourage you to ask questions. I tell my class 'If you haven't asked a question during the lesson, I am going to rent your space out to someone else!" Cheryl shared her own classroom experience. She related the activities to Van Hiele theory, and gave the teachers activity sheets that could be used in the classroom.

Regina White: Regina compiled a set of notes for the teachers that included a crossword puzzle and construction activities. "I am







not going to tell you how to construct a 120 degree angle", she challenged the teachers. Some Intersen teachers remarked to Khangelani how much they had learned in these two sessions. Both Cheryl and Regina were applauded by the teachers.

Senior Phase (Grades 8/9) Erna Lampen: "Your challenge is to construct the Platonic Solids, but not only construct them; they have to be nested!" In this workshop the teachers planned, drew, cut out and constructed triangular prisms, cubes and some teachers got further. Hendrik de Kock who was assisting Erna, commented that "Erna thinks both outside and inside the box". I noted that some teachers cut short the tea break to continue their work on the platonic solids.

FET Phase (Grade 10). Michael de Villiers presented a series of activities on quadrilaterals. This workshop was computer-based. The teachers explored, discovered and learned the properties on quadrilaterals in a hands-on and minds-on way.

FET Phase (Grade 11). Gerrit Stols used the materials from his book on Circle Geometry to take the teachers through the Circle Geometry theorems. This workshop also made use of computers.

The FET teachers had a hard time deciding which of the two workshops to attend. Some changed half way to be sure they did not miss out. In both cases the presenters shared resources that teachers could go back to once the workshop was over.

#### Catering and lunch

The catering was the weak point in the workshop. Some teachers had travelled from Mpumalanga early in the morning, and we had not provided coffee and tea and a muffin first thing. We also did not provide anything for tea. I hope though that the lunch was fine. I took Michael to the airport so did not stay for lunch.

#### Gifts and payment for the presenters

Elspeth Khembo assisted us with buying presents for the presenters. She did a wonderful job. I personally feel that we should give the presenters an honorarium. They really did present first class workshops, and I know that a lot of time went into thinking about the workshops and preparing.

Giving an honorarium would ensure that they will present again. In some cases the presenters do not have a fixed income. This means that preparing for this workshop takes them away from their income generating work. For this workshop I did not have anyone to take the FP group. At the time of asking, the person did not have a job.





#### **Guest lecturer**

A special word of thanks goes to AMESA National for arranging the flight for Michael de Villiers (from Durban) and to Johann Engelbrecht for hosting him on the Friday before the conference.

#### Lecture at the Mathematics Department (UP)

Michael de Villiers presented a paper at the mathematics department. This event was attended by about 15 people, including two lecturers from Wits. There was a lively discussion about the teaching of mathematics at tertiary level.

#### Teacher education special interest group

We took the opportunity of holding a special interest group meeting on teacher education with Michael de Villiers. We invited all the presenters, the Tshwane committee and the UP mathematics education department. 12 people attended. A report will follow.

#### **Future activities**

It was originally thought that the 2014 activity should be in Atteridgeville, but the temptation to keep some things constant (like the venue) was too great. The plan though is to have a mini conference in Atteridgeville in August (16<sup>th</sup> or 23<sup>rd</sup>). The focus of the mini conference is still to be decided. The venue is to be an FET college there with good facilities.

#### **Financial Matters**

A problem for the Tshwane Branch is that we are not self-sufficient financially and therefore rely on the University of Pretoria, SAMF, and AMESA Gauteng and AMESA National for assistance. We are very grateful for the assistance. Next time though we have to charge teachers R60 for lunch and then find caterers who can give tea and a muffin first thing (R10) and then lunch (R50).

#### Thank you

A special word of thanks go to the following:

University of Pretoria (Mamelodi Campus) - Director, Mr Edwin Smith

SAMF - Professor Johann Engelbrecht

Science, Mathematics and Technology Education (SMTE, Faculty of Education, UP),

Professor William Fraser - Head of Department



**Another Plenary Session Nina Scheepers** 







### **CONGRESS 2014 REPORT**

#### **INTRODUCTION**

This report provides a description of the planning and hosting of the AMESA 2014 Congress by AMESA Northern Cape at **Hoërskool Diamantveld** from **7 July to 11 July 2014**. We mention challenges faced and mistakes made and make a few recommendations for future congresses.

#### THE LOCAL ORGANIZING COMMITTEE (LOC)

The members of the LOC were mostly teachers and employees of the Department of Education, Northern Cape. The following table indicates the activities and the responsible committee members:

Function	Responsible committee member(s)
Congress Director	Lawrence van Heerden
Congress co-director	Nina Scheepers
Academic coordinator	Mandisa Lebitso
Academic team members	Mandisa Lebitso, Anne Maclean & Wendy Maxwell
Programme committee members	Mandisa Lebitso, Anne Maclean & Wendy Maxwell
Registration	Donald Katz, Bukelwa Xabela, Nyebe Mohale, St Kgakane, Lawrence Blanckenberg, André van Zyl & Hester Burrows
Activity centre	Patty Whitten & Donald Katz
Treasurers	André van Zyl & Rebecca Maduo
Sponsorships	Alwyn Olivier
Exhibitions	Patty Whitten
Presenters & venues	Nina Scheepers
Transport	Vincent Botha, Floyd Leshoro, Bronwyn Muller & Donald Katz
Accommodation	Gwen Pharasi
Memorabilia	Olga Mancwe
Social programme	Patty Whitten, Hester Burrows & Wendy Maxwell
Host for plenary speakers	Nina Scheepers
Logistics & technical support	Nina Scheepers
Opening & closing ceremonies	Adade Boachie-Yiadom & Donald Katz
Congress secretary (NOC)	Nombulelo Mandindi
Administrative assistant	Hettie Streuders





The LOC consisted of voluntary AMESA members and an administrative assistant. The assistant was appointed in May; she worked 5 hours per day and was paid for her services. If an assistant could be available earlier, it would reduce the burden of the Congress Director and Co-director.

Most of the LOC members struggled to synchronise their AMESA Congress work with their daily job responsibilities. Attendance at meetings was poor and that contributed towards many problems. Deadlines were missed and meetings took hours, because the correct information was not available and possibilities and options had to be discussed week after week. Not all LOC members took responsibility and ownership for their portfolios and it was very difficult to handle so many loose strings. Being aware of all the loose strings does not automatically enable one to fix them all and neither does it solve any potential problems.

In retrospect, it would be better if the LOC could have more active members and/or if LOC members could appoint their own (small) sub-committees that could work in a more focussed way and deliberate on matters pertaining to their specific portfolios/functions. LOC meetings could then be held once a month (early in the year) and once every fortnight (nearer to the start of Congress) where plans, decisions, successes and challenges could be reported and discussed. It would be less time consuming. The bottom line is that all LOC members must take full responsibility and ownership for their portfolios/functions. That implies the gathering of all their relevant information, the structuring and completion of their relevant tasks and processes, etc. right up to supplying their relevant information for the final congress report.

#### THE NATIONAL ORGANIZING COMMITTEE (NOC)

The members of the NOC formed the official support group for the LOC. Alwyn Olivier was actively involved on a daily basis and was the steering wheel behind most activities. Nombulelo Mandindi was responsible for all registrations and made information available on Dropbox. Noeline Tomsett and Corlé Lourens supported Nombulelo. Nombulelo and Corlé came to Congress to give further support to the LOC.

President	Alwyn Olivier
Academic & programme support	Vasuthavan Govender
Financial / treasury support	Rajendran Govender
National secretary	Noeline Tomsett
Congress secretary	Nombulelo Mandindi
Assistant	Corlé Lourens

#### **ANNOUNCEMENTS**

#### The First Announcement

The First Announcement was prepared and delivered to the AMESA webmaster during October 2013. Serious time limitations, heavy workloads of LOC members and the poor health of the Congress Director and the Chairperson of AMESA Northern Cape, made it very difficult to prepare the Announcement and to stay within the timeline. The availability of previous Announcements helped a lot, but since it is easy to copy and paste, proper research was neglected in some instances (such as the exact availability of single bedrooms in hostels, quotations for memorabilia items and flight times). Small errors in the First Announcement sometimes caused awkward (even serious) problems later.

#### The Final Announcement

The Final Announcement was prepared under similar conditions of heavy workloads and time limitations (due to various reasons). It was available in March 2014.

The Announcements and the call for papers were available on the AMESA webpage.

#### **CONGRESS VENUE**

The Congress was held at Hoërskool Diamantveld in Kimberley. Less than 800 participants were expected and the school would be able to accommodate them. In the end more than 1000 participants arrived and it caused many seating challenges and other problems. The Cerff Hall and the classrooms had limited seating available and participants were handled on a first come, first served basis. Sometimes this meant that participants who registered early, had to stand back for participants who registered late. It caused frustration and anger for some and the behaviour of participants was sometimes really impolite.





The following halls and classrooms were used:

- The Cerff Hall (the main school hall) could seat 800 participants.
- The Spangenberg Hall was used as an exhibition hall.
- The Markgraaff Hall was also used as an exhibition hall.
- Room 26-27 (the Science Laboratory) was prepared for 80 people and proceedings and presentations were telecasted from the Cerff Hall to Room 26-27.
- The Computer Laboratory
- Another 2 classrooms were used for the Activities Centre (ITSE E-learning Room and Bloodhound SSC Room).
- 16 Classrooms were used for lectures.
- 3 Classrooms were used for registration (1 only for participants from the Northern Cape)
- 2 Offices were used for late registrations and as a help desk.
- 1 Classroom was used for delivery of memorabilia.
- 1 Classroom was used by the technical assistant who provided all technical support.
- 1 Classroom was used for the AMESA Ambassadors as their "base camp".
- The school's library was used as the LOC's basis and "headquarters". The sponsored printer was also in the library.

The AMESA Ambassadors assisted presenters inside and outside the halls and classrooms and they also assisted participants when and wherever needed. They served as chairpersons and timekeepers during the presentations and they also regulated the admission of participants into the classrooms.

Hoërskool Diamantveld's cleaners were responsible for cleaning of the venue. They were not eager to go the extra mile and did not maintain a good standard throughout the week. Lots of extra litter is generated during a congress because disposable cutlery etc. is used. The halls must also be cleaned and tidied up after presentations. If the LOC had known that the budget would allow for it, extra cleaners would have been contracted for the week. After all, a nice and clean venue and environment contributes to a positive experience!

The school was the best and most convenient venue that was available, but a public school's facilities cannot be compared to that of universities. We tried the best we could with what we had.

#### **OPENING CEREMONY**

The opening ceremony started on time. The persons who formed the procession and who sat on stage were:

- AMESA President: Alwyn Olivier
- Congress Director: Lawrence van Heerden
- Representative of the Head of Northern Cape Department of Education: Mrs. Doris Sibiya
- Principal of Hoërskool Diamantveld: Mrs. Mareth Hugo
- Plenary Speakers and Plenary Panel Chairpersons: Vasuthavan Govender, Rajenden Govender, Anne Maclean, Vimolan Mudaly, Ingrid Rewitsky & Hamsa Venkat
- Representatives from the main sponsors: Astrid Scheiber for CASIO and Jackie Scheiber for RADMASTE. The Macmillan representative was not able to attend the ceremony.
- Representative for the LOC: Mrs. Wendy Maxwell Mr. Gordon Africa was the Master of Ceremonies.

Participants were requested to be seated by 09:45. The people who formed the procession, were invited to a special tea (from 09:00 to 09:40) in the nearby staffroom. The tea was arranged to ensure that members of the procession were punctual and it also provided opportunities for meeting strangers, exchanging of ideas and expectations and a bit of necessary socializing. The staffroom was decorated for the event and a variety of lovely muffins were served with the tea. The hostess was Sister Marie Bernarde.

The Opening Ceremony was attended by more than 800 participants. Some followed the telecasted programme in the laboratory because the Cerff Hall had limited seating available.

The programme for the opening ceremony was as follows:

Welcome National anthem Welcome address by Hoërskool Diamantveld's principal Opening remarks by LOC Welcome by AMESA President Opening address by representative NC DE Musical item

After the musical item, Alwyn Olivier declared the congress officially open.

Mr. Gordon Africa St. Boniface choir Mrs. Mareth Hugo Mrs. Wendy maxwell Alwyn Olivier Mrs. Doris Sibiya St. Boniface Choir





Both the Congress Director, Lawrence van Heerden, and AMESA Northern Cape Chairperson, Peter Manzana, were in poor health and they were not able to take part in the Opening Ceremony.

A suitable DVD of the Northern Cape was shown while participants were seated and while the procession moved to the stage to be seated. It created an appropriate atmosphere.

#### THE ACADEMIC PROGRAMME

The Academic Programme was structured around different types of presentations, namely: Plenary presentations (lectures), plenary panel discussions, parallel sessions, games sessions and the Macmillan Activity Centre presentations.

#### 1. PLENARY SPEAKERS:

There were 5 plenary speakers who addressed important issues in mathematics education.



The keynote speaker was Wing Commander **Andy Green** OBE (UK), who made a very powerful presentation on "The Power of Mathematics at 1000 Mph". Andy is currently involved with the development of the BLOODHOUND Super Sonic Car, aiming to exceed the incredible target of 1000 mph (1610 km/h). The team will be bringing the car to South Africa in May 2015 to run on Hakskeenpan in the Northern Cape, where they will be trying to set the new record.

The development of the car has been about the use of mathematics, not just with computational fluid dynamics for the aerodynamic design, but in every area of research where the team, supported by universities and research organisations, have to push the boundaries of our engineering, manufacturing and materials knowledge. However, the BLOODHOUND Project is not primarily about speed. Rather, it is an international education initiative aimed at inspiring the next generation of young scientists, engineers and mathematicians by demonstrating these subjects in the most exciting way possible.

The other four plenary speakers were as follows:



**Rajendran Govender** (University of Western Cape) showed how the development of generalizations plays a pivotal role in fostering both mathematical thinking and mathematical growth from primary to secondary school and beyond.



Anne Maclean (Maths & Science Leadership Academy NPC - MSLA), together with a number of Grade 10 - 12 learners participating in the MSLA programmes, shared what the organisation is doing in Kimberley in response to the challenges facing mathematics education in South Africa.







Vimolan Mudaly (University of KwaZulu-Natal) described the different types of knowledge a mathematics teacher ought to possess and claimed that a mathematics teacher must be well-practiced in the subject content matter. Well-practiced will imply a teacher with a well-connected and well-understood conceptual knowledge.



**Ingrid Rewitzky** (University of Stellenbosch) focused on exploring mathematical structures and the connections between different mathematical structures, together with their applications within and outside mathematics.

#### 2. PLENARY PANEL DISCUSSIONS:



Panel 1 focused on: Is mathematics pre-service teacher education delivering? The panel unpacked different views on what pre-service mathematics teacher education is doing or should be doing to improve mathematics teaching in a context of on-going low mathematical performance at all phases of schooling. This panel discussion was chaired by **Hamsa Venkat** 



Panel 2 focused on: Is the new CAPS curriculum delivering?
The discussion unpacked views on whether or not the prescription of content, sequence and pace in CAPS is enhancing or constraining teaching and learning. This panel discussion was chaired by Vasuthavan Govender.



#### 2. PARALLEL SESSIONS:

The different types of parallel sessions were presented in simultaneous strands aimed at the Foundation Phase, Intermediate Phase, Senior Phase, FET and Mathematics Teacher Education.

Across the strands, the spread of presentations was as follows:

- 25 long paper presentations of an hour each, reporting on completed and on-going research.
- 10 short papers of 30 minutes each.
- 46 workshops of one or two hours' duration offering teachers hands-on mathematical activities.
- 13 'How I teach' presentations of 30 minutes each, mostly involving teachers illustrating their classroom practices.

#### 4. MACMILLAN ACTIVITY CENTRE:

The Activity Centre catered for teachers of all phases and consisted of three venues:

- Computer Laboratory,
- Bloodhound Super Sonic Car Room and
- ITSI E-learning Room

The Activity Centre Programme allowed for teachers to experience and practise new ways which they could possibly use in their classrooms to keep learners actively and mathematically engaged in the classroom.

#### 5. GAMES SESSION

The MSLA learners and representatives from the local Department of Sports, Arts & Culture, ran a session on indigenous and maths-related games, as well as a drumming session. This session proved to be well received by the congress participants and sparked a new energy in teachers to create an atmosphere of fun in their own maths classrooms.

Challenges & recommendations for the Academic Programme:

- All participating presenters are expected to be registered for conference. Despite the fact that all presenters had been registered and had also been notified about the dates and times of their presentations, a number of presenters did not arrive for their presentations at the times scheduled. This caused unpleasantness for the LOC as participants showed their disappointment and anger in various ways. Someone must definitely be designated to communicate with presenters a day before their allotted timeslots to confirm their presence.
- The room capacity for some of the presentations did not accommodate all the participants who wished to attend. This also caused unpleasantness for the LOC and especially for the AMESA Ambassadors (Grade 10 12 learners) who served as 'marshals' throughout the congress. Repeat sessions of presentations targeting Foundation and Intermediate Phases in the programme will address the limitation of room capacity and will allow for participants to attend more of the presentations of their choice.
- It was not always possible to organise a chairperson for each presentation. In general presenters were reluctant to carry out this duty for other presenters. The AMESA Ambassadors fulfilled this role in most cases.

There are 2 possible ways to solve this problem:

- When the programme is drawn up, the timetable must reflect the presenter(s)' names as well as the chairperson's (another presenter) name. Make sure that presenters and their chairpersons present on the same day. (If some of them do not attend the whole week of Congress, you use them on the day that they must be available for their own presentation.) Do not ask for volunteers; just inform them about the other role that they need to play. The LOC suggests that the role of chairperson for other presenters must be added to the responsibilities of presenters. It must be published in the First Announcement.
- Arrange chairpersons who are not presenters, but organise it before the start of the congress and also add their names on the programme. Keep in mind that you will have to provide coffee/tea and lunch for them.

#### **PRE-CONGRESS WORKSHOPS**

Four Pre-congress workshops were held on Sunday, 06 July 2014 from 15:00 until 18:00. The pre-congress workshops provided for the following strands: Foundation Phase, Intermediate Phase, Senior Phase & FET. They were:

1. (FP) Developing geometric thinking through play - Kerryn Vollmer & Louise Keegan (76 participants registered to attend the workshop)





- 2. (IP) From adding on to breaking down and building up: The growth of computational competence Tim Mabuza (90 participants registered to attend the workshop)
- 3. (SP) Conceptions of school algebra: The link to function Anthea Roberts (35 participants registered to attend the workshop)
- 4. (FET) GeoGebra investigations in support of key Geometry results in the curriculum Werner Olivier & Phil Collett (40 participants registered to attend the workshop)

Many participants (241) registered to attend Pre-congress workshops, but only a few actually showed up. It was not clear what the reason(s) was, but it was disappointing for the LOC and the presenters.

#### AMESA ANNUAL REGIONAL MEETINGS

The annual regional meetings were held on 7 July 2014 after teatime and before the Welcome Dinner.

#### AMESA ANNUAL GENERAL MEETING

The Annual General Meeting offered members reports of AMESA activities and procedures. The new AMESA Management team was also elected during the annual general meeting.

The Curriculum Phase Committees offered participants the opportunity to directly discuss issues about the implementation of the mathematics curriculum. The Special Interest Groups on writing and on problem-solving gave participants the opportunity to engage with their interests.

#### **PROCEEDINGS**

Two volumes and a CD were printed. Volume 1 of the Proceedings covered the Long Papers and Short papers. The papers accepted for publication in this volume of the Proceedings were subject to double-blind peer review by two experienced mathematics educators. The academic committee considered the reviews and made a final decision on the acceptance or rejection of each submission, as well as changing the status of submissions. Authors of accepted submissions were given the option of submitting an extended abstract rather than their full submission for publication in the Proceedings if they wished to submit their reviewed submissions for possible publication elsewhere.

Volume 2 of the proceedings contained *Workshops* (the abstract, not the worksheets) and *How I Teach* papers. Each of the submissions accepted for publication in this volume of the Proceedings were subject to blind peer review by an experienced mathematics educator. The academic committee considered the reviews and made a final decision on the acceptance or rejection of each submission, as well as changing the status of submissions.

In total 950 copies of each volume as well as CD's were printed. When more participants showed up than what was expected, 350 extra CD's were printed. It was not possible to have extra books printed in time.

The following is a summary of submissions, acceptance and rejection figures:

Number of submissions:	116
Number of plenary paper submissions:	5
Number of long paper submissions:	30
Number of short paper submissions:	11
Number of workshop submissions:	43
Number of 'How I Teach' paper submissions:	14
Number of poster submissions:	0
Number of submissions accepted:	103
Numbers of submissions rejected:	4
Number of submissions withdrawn by authors:	9







Welcome Ceremony at Hoërskool Diamantveld



St. Boniface Choir rendering a musical item at the welcome ceremony



Prof P E Laridon at Congress 2014 with Peace Mojaki (Northern Cape representative to the AMESA National Council)



## Minutes of the 20<sup>th</sup> Annual General Meeting (AGM) of the Association for Mathematics Education of South Africa, held on Tuesday 8 July 2014 during the 20<sup>th</sup> Annual National Congress at Diamantveld High School, Kimberley

#### Present:

Alwyn Olivier (President) Vasuthavan Govender (Vice President) Rajendran Govender (Treasurer) Isaiah Ronald Shabangu (Secretary) Regional delegates as per register

#### Apologies:

No apologies were forthcoming

#### **AGENDA**

#### 1. Welcome:

The meeting was opened at 16:35 by the president.

He welcomed all present to the 20<sup>th</sup> Annual General Meeting of the Association. He then proceeded to introduce the office bearers on the executive, as well as the provincial representatives on the National Council.

The president declared the AGM as being properly constituted as a representative democracy. He explained that comments from the floor would be most welcome, but added that voting was reserved for delegates.

#### 2. Finalising the Agenda:

No new matters were added to the agenda.

#### 3. Minutes of the previous AGM:

The minutes were adopted as a true reflection of discussions and decisions made at the previous AGM as proposed by Busisiwe Goba and seconded by Phillip Mokwena.

#### 4. Matters arising:

There were no matters arising.

#### 5. National Council Report on the Activities of the Association:

The Secretary, Isaiah Ronald Shabangu, presented the National Council report on the activities of the Association for the period June 2013 to June 2014. The report by secretary was adopted as proposed by Mzwakhe Sokutu and seconded by Vukile Buthelezi.

#### 6. Financial Report and Budget:

The Treasurer, Rajendran Govender, presented the 2013 financial statement as prepared by the auditors. He thanked Alwyn Olivier for his ongoing efforts at fundraising for the Association. The financial report was adopted as proposed by Vimolan Mudaly and seconded by Chris Mgijwa.





#### 7. President's Report:

The President, Alwyn Olivier, presented the president's report. He emphasised the responsibilities of the National Council and the important role they played in ensuring that the regions functioned effectively, in accordance with the constitution of the Association.

The president also stressed the importance of partnerships, with the education departments as well as with funders. The president noted the change in Old Mutual's funding strategy with concern, and, in closing, thanked CASIO and SHARP for their ongoing support of the Association.

#### 8. Motions:

Alwyn Olivier, on behalf of the National Council proposed the following increases in membership fees structure:

- ❖ Individual fees from R120 to R130 per annum
- ❖ Associate member fees from R30 to R40 per annum
- ❖ Institutional fees from R340 to R360 per annum
- ❖ Individual (from other African countries) from ZAR150 to ZAR170 per annum
- ❖ Individual (non-African countries) from US\$65 to US\$70 per annum
- Life membership from R3000 to R3250

This motion was adopted unanimously by the AGM.

#### 9. Elections:

The following people were nominated and elected into the following vacated positions:

President: -VG Govender

Vice-president: -Busisiwe Goba

National Secretary- Gary Powell

#### 10. General:

No issues were raised.

Rajendren Govender presented Alwyn Olivier with a token of appreciation for service to the Association over the past two years.

Busisiwe Goba presented Isaiah Ronald Shabangu with a token of appreciation for service to the Association over the past five years.

#### 11. Closure:

The out-going President, Alwyn Olivier declared the meeting closed and thanked all members present for their valuable contributions.

The next AGM will be held during the 21st Annual National Congress of AMESA,

29 - 3 July 2015 in Polokwane in the Limpopo Province.

The meeting closed at 18:00



Isaiah Ronald Shabangu SECRETARY

Afoliver

Alwyn Olivier PRESIDENT



# The National Council Report: Presented by the Secretary of AMESA: Isaiah Ronald Shabangu at the AGM on 8 July 2014 at Hoërskool Diamantveld, Kimberly

This is a factual report, presented annually to the AGM covering AMESA activities and finances.

#### The National Executive committee (2012 - 2014)

	Name	Designation
1	Alwyn Olivier (Office Bearer)	President
2	Vasuthavan Govender (Office Bearer)	Vice President
3	Isaiah Ronald Shabangu (Office Bearer)	Secretary
4	Rajendran Govender (Office Bearer)	Treasurer
5	Busisiwe Goba	Executive Member
6	Elspeth Mmatladi Khembo	Co-opted member

#### National Council Regional Representatives (2012 - 2014)

Region	National Council Representative
Eastern Cape	Mzwakhe Sokutu
Free State	Vuyani Pop
Gauteng	Khangelani Mdakane
KwaZulu Natal	Busisiwe Goba
Limpopo	Steven Muthige
Mpumalanga	Philip Mokoena
North West	Moeti Makhalanyane
Northern Cape	Peace Mojaki
Western Cape	Gary Powell





#### **National Council Meetings**

The National Council met twice between consecutive Annual General Meetings. The dates and venues of Meetings were:

7-8 February 2014 at African Tides in Kempton Park, Gauteng

5-6 July 2014 at Edgerton Guest House in Kimberly, Northern Cape

#### **AMESA Annual National Congresses**

More than 900 members attended the 2013 Congress at the UWC, (University of Western Cape)

Thanks to Rajendran Govender (Congress Director) and the LOC of Western Cape for organizing Congress 2013 on behalf of the National Council.

The National Council would also like to thank Lawrence Van Heerden (Congress Director) and the LOC of Northern Cape for organizing Congress 2014.

There were 1055 delegates registered for Congress 2014.

#### **Branches in the Regions**

Each region is divided into a number of branches which report to the Region. At the AGM the number of branches and members was as follows:

Region	Number of active branches	Membership
Eastern Cape	5	132
Free State	3	163
Gauteng	3	318
KwaZulu Natal	8	431
Limpopo	5	254
Mpumalanga	20	271
Northern Cape	1	171
North West	8	139
Western Cape	1	204
Total	54	2101

#### **AMESA Committees**

The National Council appoints committees to promote the aims and functioning of the Association. These committees are:

- Curriculum Committee
- Advertising Committee
- Sponsorship Committee
- Education Fund Committee
- SANCIMU
- Website





#### The Curriculum Committee

The Curriculum Committee coordinator is Vasuthavan Govender, assisted by Rajendran Govender. During Congress, for the Special Interest Group sessions, the National Council nominates members to chair the individual phase committees.

Key curriculum issues were discussed during these phase committee meetings. These included CAPS training, teachers' content knowledge, assessment and teacher development.

Other developments and activities included:

- ❖ A problem solving workshop for facilitators was held in February 2014. These facilitators went on to conduct problem solving sessions with teachers in their regions. AMESA set aside R100000 for regional problem solving workshops
- Our vice-president Vasuthavan Govender represented us in the ministerial roundtable team on the 18th of March 2014 in Pretoria.
- On the 6th 7th of June 2014 the National Executive Committee arranged a workshop on Mathematics teacher Education with participants from different universities.

NB: Both Vasuthavan and Rajendran are the AMESA representatives on the SAMF Advisory Committee for Mathematics (ACM) until 2017.

#### **Advertising Committee**

The coordinator of the Advertising committee is Isaiah Ronald Shabangu. Other members of the advertising Committee who served during 2013 - 2014 are:

- Rajen Govender (Treasurer)
- Alwyn Olivier (President)

#### Sponsorship committees

The Sponsorship committee members are:

Alwyn Olivier (President)

Isaiah Ronald Shabangu (Secretary)

Rajendran Govender (Treasurer)

Our long standing sponsorship agreement with Old Mutual came to an end in 2013. However, in 2014 the Old Mutual foundation agreed to sponsor R80000 towards AMESA's publications.

#### South African Committee for the International Mathematics Union (SANCIMU)

Members representing AMESA in SANCIMU are:

Renuka Vital (Chair) Jayaluxmi Naidoo Busisiwe Goba Lindiwe Tshabalala Elspeth Khembo

A meeting was held on the 26th of July 2013 at UKZN where the following was discussed:

2020 ICME 14 Bid

2015 PME in South Africa

ICSU Workshop (3 October 2013, Pretoria)

South African representative in IMU - Busisiwe Goba

#### The AMESA website

The AMESA website is managed by Alwyn Olivier (President). Over the past year there have been more than 4000 visits to the AMESA website (amesa.org.za). The AMESA website contains very important information for those involved in mathematics. In the past year the following key activities were published on the website.

- 1. The South African Mathematics Challenge
- 2. Grade 9 ANA Analysis
- 3. Congress Announcements (First & Final)
- 4. Membership Form





- 5. Grade 12 Paper 1 & 2 Review for both Mathematics and Mathematical Literacy.
- 6. Regional Conference and AGM details of programmes and agenda
- 7. Other important mathematics news

#### AMESA Facebook

AMESA Face book page is managed by Alwyn Olivier

All members are encouraged to visit this page so that they can be up to date about the activities of the Association.

Members can download documents from the AMESA website: http://www.amesa.org.za

#### **AMESA Education Fund**

This fund is available to regions on application to support professional development programmes for educators. No regions applied to the Secretary and the Treasurer by the 15th August 2013 and the 15th February 2014 I would like to encourage regions to apply for this funding.

#### **Partnerships**

AMESA is in partnership with the following bodies and the government departments:

- South African Mathematics Foundation (SAMF)
- SASOL Maths Challenge (Grade 4-7)
- South African Mathematics Olympiads (Grade 8-12)
- Problem Solving Course (Teachers)
- National Science Week (Mathematics Activities)
- Statistics South Africa (STATS SA)
- ❖ National Science and Technology Forum (NSTF)
- Maths4Stats
- Department of Basic Education (DBE)
- Department of Science and Technology (DST)

#### SASOL Mathematics Challenge

The AMESA Mathematics Challenge is administered and managed by SAMF

The Management Committee set the papers and coordinated the Grade 4-7 Problem Solving teachers' workshops: Alwyn Olivier, Lindiwe Tshabalala and Nkhensani Duba serves in the Committee.

- ❖ 69 863 learners participated in the First Round in 2013.
- 3 951 learners participated in the Final Round in 2013

#### South African Mathematics Olympiad (SAMO)

AMESA is represented in SAMO by Harry Govender.

#### **AMESA Publications**

#### **Pythagoras**

The Editor-in-Chief of Pythagoras is our President, Alwyn Olivier. He is assisted by the following Associate Editors:

Michael de Villiers (University of Kwa-Zulu Natal)

Anthony Essien (University of the Witwatersrand)

Rajendran Govender (University of the Western Cape) (He is also AMESA's treasurer)

Dirk Wessels (Stellenbosch University)

#### Learning and Teaching Mathematics Journal (LTM)

Another of our important publications is the Learning and Teaching Mathematics Journal. This publication provides a medium for stimulating and challenging ideas relating to mathematics teaching and learning at all levels. It does not publish conventional





research reports; rather it presents articles that describe or discuss mathematics teaching and learning from the practitioner's perspective. LTM is a peer-reviewed journal, published twice a year and distributed to all members of AMESA.

Duncan Sampson is the Chief Editor.

Marcus Bizony, and Lindiwe Tshabalala are the editors.

Two issues were published in 2013 (One in June and one in December)

Learning and Teaching Mathematics is also available online to subscribers and to AMESA members through Sabinet's SA ePublications at http://reference.sabinet.co.za/sa\_epublication/amesal

To access the journal online, paid-up members may request the necessary login details by e-mail from the AMESA secretariat - E-mail the secretariat

#### **AMESA News**

AMESA News is published twice a year and keeps members informed about issues and events in AMESA. The current vice-president of AMESA (Busi Goba) is the editor of AMESA News. We thank all regions and other stakeholders such as SAMF and the ACM for contributing to articles for AMESA News. We encourage members to email branch and regional articles to <a href="mailto:news@amesa.org.za">news@amesa.org.za</a>. Due to organizational challenges, we are behind with issues of AMESA News. However, we promise to address these backlogs by the middle of 2015.

#### Membership

One of the challenges with regard to membership of AMESA is that members tend to be very tardy when it comes to renewing their AMESA membership. We appeal to our members to respond timeously to all requests for membership renewal. Noeline Tomsett, the membership secretary is present here at the Congress and those with membership queries should see her during this week. On Monday, 7 July 2014 AMESA membership stood at 2101 members. We appeal to members to please fax/email/post both the Deposit Slip and Membership Form to our membership secretary. We would like to congratulate the KwaZulu-Natal for being the leading Region with 431 members followed by Gauteng with 318 members. Keep up the good work at branch level.

#### **Conclusion**

AMESA is a voluntary Association meaning no one is getting paid for the work that we do. We do all what we do in the name of LOVE. It is only our positive attitude that can change our situations in our institutions. My term of office as a national secretary come to an end in this AGM. I appreciate the opportunity you gave me as a national secretary of the Association. I was really honored. I got a lot of support from my family especially my beautiful wife Happy and many individuals, especially the national council members. Keep it up the good work.

Thank you Isaiah Roland Shabangu





## Income and Expenditure Statement of AMESA for the Period 1 January - 31 December 2013

#### 1. CURRENT ACCOUNT

EXPENDITURE					R2 010 286.40
Salary				R 164 502,35	
SARS	PAYE		R 6 344,00		
	UIF		R 0,00	R 6 344,00	
Bank fees	Current account		R 10 037,10		
	Internet fees		R 2 526,35		
	Credit card facilit	:у	R 6 607,28	R 19 170,73	
Telephone	Office - Landline		R 6 528,14		
	President - Landli	ne	R 0.00		
	President - Cell		R 0.00	R 6 528,14	
Council meeting		Accom - meeting	R 49 742,42		
		Travel	R 99 505,00	R 149 247,42	
	Congress 2013	Accommodation	R 51 407,12		
		Registration	R 32 125,00	R 83 532,12	
Old Mutual	Pythagoras		R 168 094,16		
ΑΛ	AMESA News		R 0.00		
	LTM		R 30 151,86		
	Postage and stationery  Congress 2013 - Registration  Congress 2013 - First call  Congress 2013 - Programme  Membership cards and renewals		R 121 034,85		
			R 71 546,40		
			R 0.00		
			R 31 161,90		
	<u> </u>		R 0.00		
	Presidential Proje		R 13 854,51 R 0.00	R 435 843,68	
Subsidies to regio	<u> </u>	Henc	K 0.00	R 140 318,00	
Sundry				R 21 810,15	
Depositor Plus				R 615 000,00	
Member fees - ba	d debts			R 37 930,00	
Auditors' fees				R 11 514,00	
Education Fund				R 0.00	
Congress				R 304 919,07	
Printing Stationer	у			R 13 626,74	

INCOME				R1 523 895.90
Old Mutual			R 550 000,00	
Sales and advertising	g		R 0.00	
Members fees	Cash, cheques, internet transfer	R 457 049,35		
	Credit card	R 400.00	R 457 449,35	
Congress			R 392 897,15	
SAMF - JET			R 0.00	
Sabinet, Dalro and o	ther		R 123 549,40	

SURPLUS -R486 390.50





## Income and Expenditure Statement of AMESA for the Period 1 January - 31 December 2013

2. EDUCATION FUND					
INCOME		R 702,69			
Interest received	R 702,69				
EXPENDITURE		R0.00			
Regional development	R0.00				
SURPLUS FOR THE YEAR			R 702,69		

3. CALL ACCOUNT					
INCOME		R 20 207,97			
Interest received	R 20 207,97				
EXPENDITURE		R0.00			
SURPLUS FOR THE YEAR			R 20 207,97		

4. RESERVE FUND			
INCOME		R 9 048,55	
Interest received	R 9 048,55		
EXPENDITURE		R0.00	
SURPLUS FOR THE YEAR			R 9 048,55

5. DEPOSITOR PLUS				
INCOME		R 8 016,03		
Interest received	R 8 016,03			
EXPENDITURE		R0.00		
SURPLUS FOR THE YEAR			R 8 016,03	R37 975.24

TOTAL SURPLUS/ DEFICIT ON ALL ACCOUNTS

-R 448 415,26





## Income and Expenditure Statement of AMESA for the Period 1 January - 31 December 2013

#### **SUMMARY OF BANK ACCOUNTS UP TO 31 DECEMBER 2013**

1. CURRENT ACCOUNT		R56 175.26
Opening balance from 2013 Net transfer to Depositor Plus Net transfer to reserve fund Surplus for year	R542 565.76 R0.00 R0.00 -R486 390.50	
2. EDUCATION FUND Acc No: 9085351	710	R32 323.04
Opening balance from 2013 Surplus for year	R31 620.35 R702.69	
3. CALL ACCOUNT Acc No: 9085350	277	R275 500.00
Opening balance from 2013 Transfer Depositor Plus Surplus for year	R855 292.03 R600 000.00 R20 207.97	
Depositor Plus Account Opening balance Deposit Surplus for year	R0.00 R1 215 000.00 R8016.03	R1 223 016.03
4. RESERVE FUND		R222 471.71
Opening balance from 2013 Surplus for year	R213 423.16 R9 048.55	

#### **TOTAL OF ALL ACCOUNTS**

R1 809 486.04

			Op	ening 2013	Clo	osing 2013
Term	Acc No	20-6641-6798	R	13 761.65	R	14 268.65
Term	Acc No	20-6519-7783	R	76 540.05	R	80 415.88
Term	Acc No	20-6245-3984	R	40 874.46	R	42 795.75
Term	Acc No	20-6108-0279	R	32 653.83	R	34 272.32
32 Notice	Acc No	91-8606-5955	R	49 593.17	R	50 718.78
		Total	R	213 423.16	R	222 471.71



#### **AMESA NATIONAL BUDGET 2013**

EXPENDITURE	BUDGET	ACTUAL
Salaries	R200 000.00	R164 502.35
Sundries	R30 000.00	R21 810.15
Printing and stationery	R20 000.00	R13 626.74
Council meetings	R150 000.00	R232 779.54
Subsidies to regions	R180 000.00	R140 318.00
Telephone	R30 000.00	R6 528.14
Bank fees	R15 000.00	R19 170.23
Bad debts	R1 000.00	R37 930.00
(Old Mutual) sponsored projects	R500 000.00	R435 843.68
Auditor's fees	R12 000.00	R11 514.00
Congress (Seed)	R10 000.00	R0.00
Excess publication costs	R50 000.00	R0.00
Continuous professional development	R100 000.00	R0.00
Congress	R0.00	R304 919.07
SARS	R0.00	R6 344.00
TOTAL EXPENDITURE	R 1 298 000.00	R 1 395 285.90

INCOME	BUDGET	ACTUAL
Balance from 2012	R1 400 000.00	R1 642 901.30
Membership	R500 000.00	R457 449.35
Sabinet, Dairo & other	R0.00	R123 549.40
Sales and advertisements	R10 000.00	R0.00
Interest received	R30 000.00	R37 975.24
Old Mutual	R500 000.00	R550 000.00
Congress	R0.00	R392897.15
TOTAL INCOME	R2 440 000.00	R3 204 772.44



EXPENDITURE	BUDGET
Salaries	R215 000.00
Sundries	R30 000.00
Printing and stationery	R25 000.00
Council meetings	R150 000.00
Subsidies to regions	R180 000.00
Telephone	R30 000.00
Bank fees	R15 000.00
Bad debts	R1 000.00
(Old Mutual) sponsored projects	R500 000.00
Auditor's fees	R15 000.00
Congress (Seed)	R10 000.00
Excess publication costs	R50 000.00
Continuous professional development	R100 000.00
TOTAL EXPENDITURE	R 1 321 000.00

INCOME	BUDGET
Balance from 2013	R1 809 486.04
Membership	R500 000.00
Other income	R300 000.00
Sales and advertisements	R10 000.00
Interest received	R30 000.00
Old Mutual (& other sponsors)	R550 000.00
TOTAL INCOME	R3 199 486.04

Balance	R1 878 486.04



## Congress 2015



Deepening the quality of mathematics teaching and learning

At this 21st Annual National Congress, AMESA takes stock and reflects on strategies that could be used to address the issue of the quality of mathematics teaching and learning. Some of the questions Congress 2015 will be addressing are:

- How are mathematics teachers trained?
- What kinds of continuing professional development programmes are being offered to practicing mathematics teachers?
- · What mathematics is taught in schools?
- · What kinds of learner support materials are being used to assist teachers and learners?

The Congress will take place as mentioned below:

Theme:	Deepening the quality of Mathematics teaching and learning			
Date:	29 June - 3 July 2015			
Venue:	University of Limpopo, Polokwane, Limpopo Province.			

#### Come and be a part of this historical event!





## **AMESA Regional Conferences 2015**

Regions will be busy in 2015 with conferences and teacher workshops on mathematics content and problem solving. Below is a table of the dates when the regional conferences will take place with contact persons. Members are encouraged to contact their regional representatives to get full details of the conferences in their regions.

Region	Date of the conference	Venue	Contact person and details
EC	23 May 2015	Rhodes university	Mzwakhe Sokutu
FS	18 April 2015	To be confirmed	Pamela Hugo
GP	16 May 2015	To be confirmed	Khangelani Mdakane
KZN	25 April 2015	UKZN, Edgewood Campus	Vimolan Mudaly
LMP	20-21 March 2015	Tivumbeni EMPC in Nkowankowa near Tzaneen.	Steven Muthige
MP	23-24 May 2015	Hoërskool MIDDELBURG	Phillip Mokoena
NC	16 May 2015	To be confirmed	Peace Mojaki
NW		To be confirmed	Moeti Makhalanyane
WC	23 May 2015	Cape Teaching and Leadership Institute - Kuils River	Desiree Timmet

## NOTICE

We would like to inform members of the dates for the South African Mathematics Challenge and South African Mathematics Olympiad.

South African Mathematics Challenge: 11 - 15 May 2015 (First Round) and 29 July 2015 (Final Round)

South African Mathematics Olympiad: Closing date for entries: 6 February 2015

First round: 12 March 2015 Second round: 13 May 2015 Third round: 29 July 2015

## **OBITUARY**

It is with very sad news that we report on the untimely passing of **Violet Keofitlhetse**. Violet passed on 13 April 2014, after a short illness. She was a member of AMESA, executive member of Kgetleng branch and LOC member who organised AMESA North West Regional conference in 2012. She represented AMESA North West in problem solving workshops. We remember Violet for dedicating her to improving teaching and learning of mathematics.

We also announce the death of **Lawrence van Heerden** in December 2014 after a long illness. Lawrence has been one of our stalwart AMESA members and served on our National Council as the Northern Cape representative for many years. We last saw Lawrence at the AMESA 2014 Congress in Kimberley where he was Congress Director. Although he was ill, he nevertheless managed to attend some of the sessions. We will miss him!

It will be appreciated if members could send me information about other members of AMESA who have passed away recently. A brief description of their AMESA involvement and a recent photograph will be appreciated. Send the information to <a href="mailto:vicepresident@amesa.org.za">vicepresident@amesa.org.za</a>.





## **AMESA NATIONAL COUNCIL 2014 - 2016**

Name	Office	Elected	Cell no.	E-mail
Executive				
VG (Vasuthavan) Govender	President	2014	082 341 6060	president@amesa.org.za
Busisiwe Goba	Vice-President	2014	073 848 3377	vicepresident@amesa.org.za
Gary Powell	Secretary	2014	083 254 5682	secretary@amesa.org.za
Rajendran Govender	Treasurer	2013	082 451 3648	treasurer@amesa.org.za
Alwyn Olivier		2014	083 292 4077	aio@sun.ac.za

Regional Representatives				
Mzwakhe Sokutu	Eastern Cape	2013	073 158 3609	mzwakhesokotu@yahoo.com
Vuyani Pop	Free State	2013	082 767 6653	freestate@amesa.org.za
Khangelani Mdakane	Gauteng	2010	082 617 9196	gauteng@amesa.org.za
Vimolan Mudaly	KwaZulu-Natal	2014	082 977 0577	mudalyv@ukzn.ac.za
Steven Muthige	Limpopo	2012	072 102 7796	limpopo@amesa.org.za
Phillip Mokoena	Mpumalanga	2011	083 346 6021	mpumalanga@amesa.org.za
Peace Mojaki	Northern Cape	2013	0785175513	northencape@amesa.org.za
Makhalanyane Moeti	North West	2012	076 052 6113	northwest@amesa.org.za
Desiree Timmet	Western Cape	2014	082 803 9354	westerncape@amesa.org.za

### THE OLD MUTUAL OPPORTUNITY

You get support from the day you matriculate, throughout your actuarial studies to qualification and beyond. Our Chief Executive Officer, Long-Term Savings, Paul Hanratty, began his journey as a bursary student. We now offer you a bursary to study at the University of Cape Town or the University of Stellenbosch – if YOU think you have what it takes, use the Old Mutual opportunity to SHINE!

#### The bursary covers

- Tuition fees
- Accommodation with meals
- Travel and book allowance
- Incentives for good performance
- Academic and emotional support
- Good networking opportunities
- Vacation work from second year

#### The Old Mutual edge to keep you going

- One-on-one mentoring by an experienced qualified actuary
- Guaranteed employment after university
- In-house rotation programme exposing you to various aspects of our business
- Working with acknowledged industry-leading experts in different fields, shaping South Africa's financial future.

#### The challenge

#### Being an Actuary requires:

- Sacrifice, dedication and hard work
- Proven numeracy skills (Mathematics)
- Communication skills (English)
- An appetite for challenge
- Drive, energy and initiative
- That special x-factor that proves you're a cut above the rest!

#### The reward

- At the end of the journey you will join an elite, talented pool.
- You will be recognised as a top-earning niche professional with specialised skills in risk management across a range of financial arenas – finance, fund management, investment product design, solution development and consulting, and retirement and risk planning – among others.

#### **CLOSING DATE: 30 MAY**

Preference will be given to black South African learners i.e. Africans, Coloured and Indians (ito of EE Act).

For more information, contact Banele Dondolo at 021 509 2656 or Mambuyisa Rapiya at 021 504 7285. Email bdondolo@oldmutual.com or mrapiya2@oldmutual.com. www.oldmutual.co.za/careers

