

# The Association for Mathematics Education of South Africa



Mathematics: The Pulse of the Nation

**16<sup>th</sup> Annual National Congress**

**28 March to 1 April 2010**

George Campbell School of Technology  
Durban, KwaZulu-Natal

**FINAL ANNOUNCEMENT AND REGISTRATION FORM**

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You are invited to the Sixteenth Annual National Congress of the Association for Mathematics Education of South Africa (AMESA) and to submit contributions around the theme:

## ***Mathematics: The Pulse of the Nation***

**VENUE:** George Campbell School of Technology, Durban, KwaZulu-Natal

**DATE:** 28 March – 1 April 2010

**THE PROGRAMME** will include:

1. **Pre-congress workshops (27 March 10:00 – 16:00)**
  - *Data handling and probability:* Lusandra Mkwenkweni
  - *Practical symmetry to investigate cultural patterns:* Dennis Almeida
  - *Definitions in geometry; transformation geometry:* Michael de Villiers
  
2. **Plenary addresses** by the following invited speakers:
  - Dennis Almeida (UK)
  - John Volmink (SA)
  - Retha van Niekerk (SA)
  - Sushie Naidoo (SA)
  - Poobhalan Pillay (SA)
  
3. **Panel discussions** on the following themes:
  - *Assessment in Mathematics* Chair: Sizwe Mabizela
  - *Foundations for Learning Campaign* Chair: Palesa Tyobeka
  - *Professional Development in Mathematics* Chair: Mellony Graven
  
4. **Parallel sessions** presented by participants, in the following areas: Foundation Phase, Intermediate Phase, Senior Phase, FET Phase, Mathematics Teacher Education. The following presentation formats will be used:
  - Long papers (40 minutes plus 20 minutes discussion)
  - Short papers (20 minutes plus 10 minutes discussion)
  - “How I Teach” papers (20 minutes plus 10 minutes discussion)
  - Workshops (1 or 2 hours)
  
5. **AMESA Interest Groups** discussion sessions:
  - Curriculum phase committees
  - Mathematics Olympiad
  - National Mathematics Week
  - Mathematics Teacher Education
  
6. **Activity centre:** Hands-on practical activities to enhance teachers’ and learners’ concepts.
  
7. **Exhibits and Maths Market:** Publishers will exhibit and promote their products.
  
8. **AMESA Annual General Meeting**

## THE VENUE

### Durban, KwaZulu-Natal

Durban is a prime choice for conference and event planners, tourists and sports enthusiasts, because this is the city that is Africa's leading sports and events capital.

A previous winner of the United Nations Award for Best Managed City in Africa, Ethekewini Municipality maintains effective control of the City's resources while steering its progress.

### George Campbell School of Technology

George Campbell School of Technology is a modern co-educational school offering a large well-equipped air-conditioned Media Centre as well as an Information Technology Centre.

The school is situated at 261 Brickhill Road, Durban. It is opposite the Ice Rink and five minutes' walk to the beachfront. It is also within walking distance of the train and bus stations.

## CONTACT DETAILS

Please send all communication about *administrative matters* to:

### The Congress Secretariat

P.O. Box 1028  
Desainagar  
Durban  
4405

Tel: 032 941 5530

Fax: 032 941 5530

E-mail: [congress@amesa.org.za](mailto:congress@amesa.org.za)

Please send all communication about the *academic programme* to:

### The Academic Coordinator

Michael de Villiers  
Mathematics Education (Edgewood Campus)  
University of KwaZulu-Natal  
Private Bag X03  
3605 ASHWOOD

Tel: 031 260 7252

Fax: 031 260 3697

E-mail: [michael@amesa.org.za](mailto:michael@amesa.org.za)

## CONGRESS WEBSITE

For additional and updated information, visit the congress website at <http://www.amesa.org.za/amesa2010/>

## LOCAL ORGANISING COMMITTEE

**Congress Director:** Vishnu Naidoo  
Tel: 032 941 5935  
E-mail: [Vishnu@amesa.org.za](mailto:Vishnu@amesa.org.za)

**Academic Coordinator:** Michael de Villiers  
Tel: 031 260 7252  
E-mail: [michael@amesa.org.za](mailto:michael@amesa.org.za)

**Committee Members:** Harry Govender, Kitty Phillips, Sushie Naidoo, Tyger Yegambaram, Kamla Ramdin, Shanba Govender, Thulani Dela, Jane Cruickshank, David Maistry, Merle Pillay, Logie Baskali, Dory Reddy, Busi Goba, Ronel Mitchel, Phillip Digkomo, Roshini Ramnarayan, Priscilla Brijlal, Magash Naidoo, Raj Singh, Ronel Mitchel, Nash Bhugwandeem

## DEADLINES

Application for financial support:	1 February
Early registration <i>at a reduced rate</i> :	By 5 February
Normal registration:	6 February to 5 March
Late registration <i>at an increased rate</i> :	After 5 March
Presenters' equipment arrangements:	5 March
Transport arrangements from airport:	5 March
Cancellation of any costs:	12 March

## PLENARY SPEAKERS

**Dennis Almeida (UK)** currently works as tutor in a distance learning taught Masters and Doctorate programme in Mathematics Education at the University of Exeter as well as in the online iTeach teacher training programme of the Canterbury Christ Church University. He also teaches mathematics in secondary schools on an occasional basis. He has research interests in students' development of proof practices and in the history of Indian mathematics. He has numerous research publications and presentations in the area of proof and the implications of the history of mathematics for the teaching of the subject. He is particularly keen on the use of spreadsheets in the teaching and learning of mathematics and has contributed to continuing teacher education programmes in this vein. The title of his plenary presentation is *Mathematics, mathematical proof and democracy*.



**John Volmink (SA)** studied mathematics at the University of the Western Cape and post-graduate mathematics education at Cornell University in the USA. He has worked as high school teacher, researcher, lecturer and administrator in South Africa, and in the UK and USA. He was the Campus Vice-Principal at the University of KwaZulu-Natal from 1995-1998, and is currently the Principal of Cornerstone Christian College. He has served on several ministerial commissions on mathematics education and is currently the Chair of UMALUSI (Council for Quality Assurance in General and Further Education and Training)

**Retha van Niekerk (SA)** is currently teaching mathematics to undergraduate and post graduate students at the University of the Witwatersrand School of Education in Johannesburg. She had been involved in the design of the geometry curricula for South African schools (RNCS) as well as schools in the state of Texas in the USA (Geometry Initiative). She has published several workbooks on measurement and geometry for primary school learners in South Africa and the USA.

The title of her plenary talk is *The state of Geometry education in South Africa*.



**J Naidoo (aka Sushie) (SA)** is currently teaching at Woodview Secondary in Phoenix, Durban. She started as a level 1 educator at the school in 1995 and in 2000 was appointed Head of the Department Mathematics, Science and Information Technology. Prior to taking up the post at Woodview she taught at various high schools for eight years. Sushie has been engaged in AMESA activities at various levels. At provincial level, she is a council member, the convenor of the FET Mathematics Curriculum Committee, one of the facilitators for the ESP (Educator Support Project), and Vice-President of AMESA-KZN. At branch level, she is the general secretary of the Northern Regions Mathematics Society.

**Poobhalan Pillay (SA)** joined the then University of Durban-Westville in 1967 as a temporary Junior Lecturer and retired in 2006 as a full professor. He taught every undergraduate Mathematics course offered at the university. He taught at Rutgers University for a year and co-authored a book entitled *Classification of Commutative FPF Rings*. In 2005 he served on the Ministerial Committee that reported on Mathematical Literacy. He has been an UMALUSI moderator for National Senior Certificate Mathematics since 1997. Poobhalan served on the South African Mathematics Olympiad committee as a panel member, as well as on the South African International Mathematical Olympiad committee as AMESA representative.



## PLENARY PANEL CHAIRS

### Panel 1: *Assessment in Mathematics*



**Sizwe Mabizela** is the Deputy Vice-Chancellor (Academic and Student Affairs) at Rhodes University. Before that he was Professor and Head of the Department of Mathematics at Rhodes University. He received his PhD degree at the Pennsylvania State University in the USA. He has taught Mathematics at all levels of university education. He is a member of the South African Mathematics Olympiad committee. He serves on the Council of UMALUSI and is the Chair of the Assessment and Standards Committee of UMALUSI. He has served on the Ministerial Committees on Mathematics Education and on Learner Retention in the South African Schooling System.

### Panel 2: *Foundations for Learning Campaign*



**Palesa Tyobeka** currently is the Deputy Director General for General Education, responsible for quality education for children in Grades R to 9 and has recently led a review of the implementation of the National Curriculum Statement. She has conceptualised and is driving government's current priority programme for education – the Foundations for Learning Programme to improve the competency levels of SA's children in literacy, numeracy, language and mathematics. She was initially trained as a teacher of English as a second language to high school students and holds a Masters Degree from Reading University in the UK.

### Panel 3: *Professional Development in Mathematics*



**Mellony Graven** is currently Director of the Mathematics Centre of St Andrew's and DSG in Grahamstown. Prior to this position she was an Associate Professor in Mathematics Education at the University of the Witwatersrand. She has contributed to policy documents and the work of the Independent Examinations Board. She is the editor of the *Learning and Teaching Mathematics* journal of AMESA. She began her career as a Mathematics teacher at St Barnabas College in 1991. Her decision to move from the university world back into schools reflects her continued passion for mathematics and her need to once again be an 'insider' in the profession of mathematics teaching.

## PRE-CONGRESS WORKSHOPS

- Workshop 1: *Data handling and probability*  
Presenter: Lusandra Mkwenkweni
- Workshop 2: *Practical symmetry to investigate cultural patterns*  
Presenter: Dennis Almeida
- Workshop 3: *Definitions in geometry; transformation geometry*  
Presenter: Michael de Villiers

Limited space will be available and booking is essential. Allocation will be on a first-come first-served basis. If a workshop is fully booked you will be contacted and provided an alternative if there are still places available. Please indicate your choice, if any, clearly on the Registration Form.

Note that tea and lunch are not provided, but can be bought at various shops in the vicinity.

## EXHIBITS AND MATHS MARKET

Publishers, entrepreneurs and NGOs are invited

- to exhibit their commercial products and services in a stand in the exhibition hall, and
- to present and promote their products in a *Maths Market* session during the academic programme.

For more details contact Nash Bhugwandeen, Cell: 083 299 5112, E-mail: [nasheenb@gmail.com](mailto:nasheenb@gmail.com)

## PROVISIONAL PROGRAMME

### Saturday 27 March

09:00 – 10:00	Registration at Foyer
10:00 – 16:00	Pre-congress workshops
14:00 – 22:00	Registration at Foyer
14:00	Congress accommodation open

### Sunday 28 March

07:00 – 10:00	Registration at Marquee
10:00	Opening ceremony
17:30	Congress day ends
19:30	Civic Reception: International Conference Centre (ICC)

### Monday 29 March

08:30	Congress day starts
17:30	Congress day ends
19:30	Cultural evening

### Tuesday 30 March

08:30	Congress day starts
13:00	Excursions departure
18:00	Arrive back from excursions
20:00	Beach Party (subject to change)

### Wednesday 31 March

08:30	Congress day starts
17:30	Congress day ends
19:00	Congress dinner-dance

### Thursday 1 April

08:30	Congress day starts
12:00	Closing ceremony
13:00	Congress ends (boxed lunch)

## TUESDAY AFTERNOON 30 MARCH, EXCURSIONS

Participants may choose one of these excursions (indicate your choice on the Registration Form):

1. [Temple of Understanding](#) and Township tour @ R100/person
2. [Valley of Thousand Hills](#) @ R100/person
3. [Crocworld](#) @ R120/person
4. [uShaka Marine World](#) @ R100/person
5. Sibaya Theatre and [Gateway Shopping Mall](#) @ R140

## EVENING SOCIAL FUNCTIONS

### Sunday 28 March, Civic Reception:

At the [International Conference Centre](#) (ICC). Everybody welcome.

### Monday 29 March, Cultural evening:

The dress is smart-casual. Free to all.

### Wednesday 31 March, Congress dinner-dance:

The dress is smart-casual. Cost is R100/person.

## REGISTRATION

Participants will be registered for the AMESA Congress 2010 only after receipt of a completed registration form *and* payment of all costs associated with the Congress.

Registration fees include admission to all sessions, a copy of the various volumes of Proceedings of the Congress, a copy of the Congress programme, the Congress bag, morning and afternoon teas as well as lunch from Monday to Friday.

**AMESA membership:** All participants must be current paid-up AMESA individual or institutional members.

Participants who are current paid-up members must produce proof of membership (their membership number) when registering.

Participants who are not members must complete the enclosed AMESA membership application form and pay the appropriate membership subscription when registering.

*To qualify for the reduced early registration fee your completed registration form and payment must reach the Congress Secretary by 5 February 2010.*

## CONGRESS ACCOMMODATION

Three types of congress accommodation will be available at nearby schools:

*Share 4:* The cost is R875 per person for 4 people sharing for 5 nights – it is self-catering, with 4 single beds, kitchen, TV and bath/shower.

*Share 3:* The cost is R1200 per person for 3 people sharing for 5 nights – it is self-catering, with 3 single beds, kitchen, TV and bath/shower.

*Share 2:* The cost is R1500 per person for 2 people sharing for 5 nights – it has 2 single beds, TV, shower and air-conditioning. Breakfast is available at R250 per person.

Bedding and towels are provided.

Indicate your requirement on the Registration Form. If you wish to share a room, you should also provide the names your roommates, otherwise the organisers will allocate you a person.

Note:

- Bookings will be made on a first-come first-served basis.
- We cannot guarantee that accommodation will be available if you register after 5 March 2010.

## ALTERNATIVE ACCOMMODATION

We provide details of alternative hotel and guest house accommodation near to the venue. Participants should make their own arrangements with these establishments.

Establishment	Approximate price per night		Contact details
	Single	Double	
Albany Hotel	R530	R400/person	031 304 4381 <a href="http://www.albanyhotel.co.za">www.albanyhotel.co.za</a>
Tropicana Hotel	R700	R490/person	031 337 4222
Morningside Hotel		R575/room	031 312 2236
Parade Hotel	R520	R840/room	031 337 4565 <a href="http://www.paradehotel.co.za">www.paradehotel.co.za</a>
Blue Waters Hotel	R875	R520/person	031 327 7000 <a href="http://www.bluewatershotel.co.za">www.bluewatershotel.co.za</a>
Laletsa Lodge	R600	R750/person	031 201 0785 <a href="http://www.laletsa.co.za">www.laletsa.co.za</a>
City Lodge	R875	R550/person	031 332 1447 <a href="http://www.citylodge.co.za">www.citylodge.co.za</a>

## MEALS

Lunches from Sunday to Thursday are included in the registration fee for everybody. Breakfast and dinner are not included and depends on your accommodation.

Please indicate your dietary requirements on the Registration Form.

## TRANSPORT

As far as possible, all participants arriving by plane will be transported to the venue by the organisers. *To use this transport you must supply your details on the registration form and submit it by 5 March 2010.*

The bus and train terminals are within easy walking distance of the congress venue and accommodation, so no transport is provided by the organisers. Here are taxi operator numbers:

Eagle: 031 337 8333

Mozzie Cabs: 031 303 5787

## CANCELLATION POLICY

Once your registration form has been processed a cancellation fee of 20% of all costs will be charged for cancellations up to **12 March 2010**. After 12 March no refunds will be made for any cancellation of complete or partial costs.

## APPLICATION FOR FINANCIAL SUPPORT

A limited amount of funding is available to assist those participants who would otherwise be unable to attend the Congress. The attached application form must be submitted by **1 February 2010**.

## EQUIPMENT FOR PRESENTERS

Data projectors, overhead projectors, computer laboratories and other forms of equipment needed by presenters need to be booked and confirmed with the organisers in writing by no later than **5 March 2010**. For computer workshops, presenters must supply any software to be pre-installed at least two weeks before the start of the congress. Email: [congress@amesa.org.za](mailto:congress@amesa.org.za)

## WEATHER IN MARCH/APRIL

Please remember that it will be summer in Durban, usually sunny, and mild during the evening and at night. Light cotton clothing is advisable.

## IN CASE OF EMERGENCY

St Augustines Hospital: 031 268 5133/4/5

Maxwell Hospital: 031 309 4170

Pharmacy: 031 251 8500

Metro Police: 031 361 0000

## HOW TO GET THERE

### By air

See the website <http://www.acsa.co.za>

### By train

There are train services from Johannesburg and Cape Town to Durban.

See the website:

<http://www.spoornet.co.za/ShosholozaMeyl>

### By bus

See the following websites:

<http://www.greyhound.co.za>

<http://www.translux.co.za>

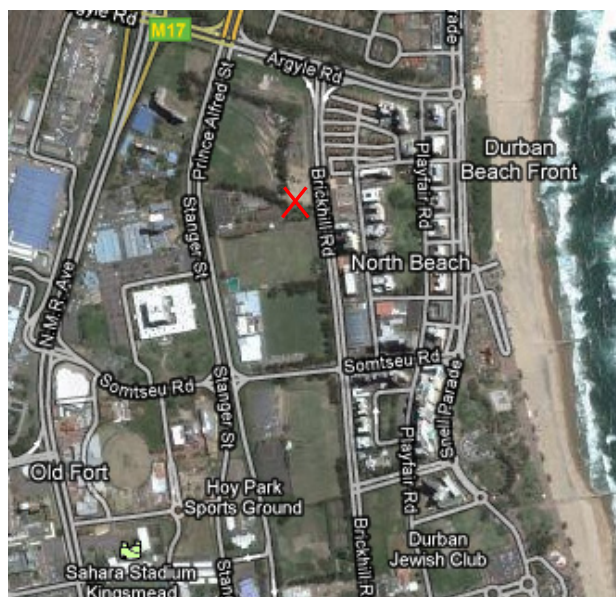
<http://www.intercape.co.za>

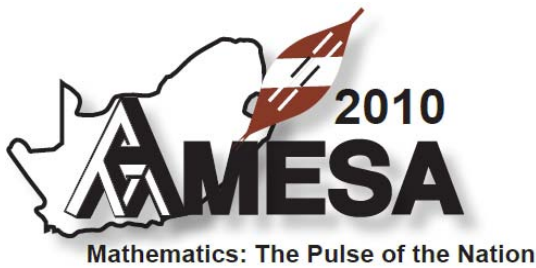
<http://www.saroadlink.co.za>

### By car

George Campbell School of Technology is situated at 261 Brickhill Road on North Beach.

Maps are available on the congress website at <http://www.amesa.org.za/amesa2010>





## REGISTRATION FORM AMESA CONGRESS 2010

Note: You can download an electronic registration form at: <http://www.amesa.org.za/amesa2010>  
Or you can complete this form in full and in capital letters and return to the Congress Secretary.

### SECTION A: PERSONAL DETAILS

Surname:	First name:	Title:	
Postal address:			
Code:			
Institution:			
Telephone (home):	Telephone (work):	Fax:	Cell:
E-mail:			

### SECTION B: AMESA MEMBERSHIP

*It is AMESA policy that all participants must be paid-up AMESA members.*

Are you a current <b>paid-up AMESA member</b> ? Please tick:	YES	NO
If <b>yes</b> , please provide your AMESA membership number: _____		
If <b>no</b> , complete the AMESA membership application form (Section M) and enter the appropriate membership fee here and in Section J	<b>Amount (R)</b>	

### SECTION C: REGISTRATION FEE

*Please mark the appropriate fee. The policy will be strictly enforced.*

	Amount (R)
<b>Early registration: R600 (by 5 February)</b>	
<b>Normal registration: R700 (6 February to 5 March)</b>	
<b>Late registration: R1000 (after 5 March)</b>	

OR

	Sun	Mon	Tue	Wed	Thu	Amount (R)
Day visitor (please tick appropriate days) @ R225 per day + membership						

Note: Congress materials will be available for day visitors at an additional cost of R250

## SECTION D: CONGRESS ACCOMMODATION

*Refer to the earlier detail*

	Male/Female	Amount (R)
<b>Share 4:</b> R875/person for 4 people sharing for 5 nights Self-catering		
<b>Share 3:</b> R1200/person for 3 people sharing for 5 nights Self-catering		
<b>Share 2:</b> R1500/person for 2 people sharing for 5 nights Add R250/person if you want breakfast		

Please provide details of your *preferred roommate*:

Name of roommate	Cell no.	E-mail

## SECTION E: MEALS

All lunches from Sunday to Thursday are included in the registration fee.

Breakfast and dinner are not included and depends on your accommodation.

Dietary requirements: (please tick or specify)	Halaal	Vegetarian	No red meat	Other. Please specify:
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## SECTION F: EXCURSIONS AND FUNCTIONS

Mark your choices:

	Amount (R)
<b>Monday 29 March: Cultural evening @ Free</b>	
<b>Tuesday 30 March: Excursions</b> (mark not more than one)	
Temple of Understanding & Township Tour @ R100/person	
Valley of Thousand Hills @ R100/person	
Crocworld @ R120/person	
uShaka Marine World @ R100/person	
Sibaya Theatre and Gateway Shopping Mall @ R140/person	
<b>Wednesday 31 March: Congress dinner-dance @ R100/person</b>	
<b>Sub-total for excursions and functions:</b>	

## SECTION G: TRANSPORT TO AND FROM AIRPORT

*Note: Only applicable for paid registrations received by 5 March*

### Arrival

I arrive on (tick):  27 March  28 March at (time) \_\_\_\_\_ on flight no \_\_\_\_\_

### Departure

I depart on (tick):  31 March  1 April at (time) \_\_\_\_\_ on flight no \_\_\_\_\_

*Note: The transport will leave 90 minutes before your departure time.*

## SECTION H: PRE-CONGRESS WORKSHOPS

To book a place, tick at most one pre-congress workshop (Saturday 27 March, 10:00 – 16:00):

<b>Workshop 1</b> <i>Data handling and probability</i>	YES
<b>Workshop 2</b> <i>Symmetry in cultural patterns</i>	YES
<b>Workshop 3</b> <i>Definitions &amp; transformation geometry</i>	YES

## SECTION I: SPECIAL NEEDS

Special needs requirements (wheelchair entrance, etc.).

Any other information:



## SECTION L: PURCHASE OF CONGRESS SHIRT

**Note:** This order will only be processed if **payment is made by 1 March 2010**

I would like to purchase the 2010 AMESA congress shirt.

Surname:		First name:		Title:	
Postal address:					
Code:					
Institution:					
Telephone (home):		Telephone (work):		Fax:	Cell:
E-mail:					

Mark your choice, then include the amount in your total payment (section J)

- Congress Shirt *without* collar (male and female)      R100  
 Congress Shirt *with* collar (male only)                      R100

Please indicate your size: **S**    **M**    **L**    **XL**    **XXL**:

Your size:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**NB: Fax this completed page with your payment to 032 941 5530  
or send with your registration to reach the congress office by 1 March 2010**

## SECTION M: AMESA MEMBERSHIP APPLICATION/RENEWAL FORM

*If you are not a current paid-up AMESA member, you need to complete this section.*

*Please complete in full and in capital letters*

1. **Membership No** (if renewal): \_\_\_\_\_

2. **Province:** \_\_\_\_\_ **Branch:** \_\_\_\_\_ (if known)

3. **Membership type:**  Individual  Institutional  Associate (e.g. full-time student)

4. **Field of Interest:**  Primary  Secondary  Tertiary

5. ***For Individual and Associate members only:***

**Surname:** \_\_\_\_\_ **First Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Postal address:** \_\_\_\_\_ **Postal Code:** \_\_\_\_\_

**Tel. no:** \_\_\_\_\_ **Fax:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

6. ***For Institutional members only:***

**Designation** of person to whom correspondence should be addressed

(e.g. The HOD Mathematics / Librarian): \_\_\_\_\_

**Name of Institution:** \_\_\_\_\_

**Postal address:** \_\_\_\_\_ **Postal Code:** \_\_\_\_\_

**Tel. no:** \_\_\_\_\_ **Fax:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

7. ***For student members only:*** I hereby declare that I am a full-time, pre-service student at the following institution: \_\_\_\_\_ Signature: \_\_\_\_\_

*Please include proof of registration at tertiary institution with your application.*

8. **Membership subscription fee:**

***Mark one, and then include the amount in the membership section (B) and total (Section J)***

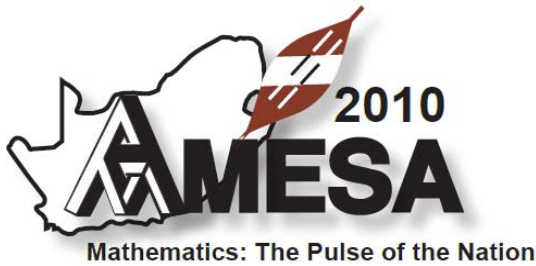
South Africa, Individual: R100

South Africa, Institutional: R280

South Africa, Associate: R25

Other African countries, individual: ZAR 120

Non-African countries, individual: USD55 (ZAR 500)



The Congress Secretariat  
 P.O. Box 1028  
 Desainagar  
 Durban  
 4405  
 Fax: 032 941 5530  
 E-mail: [congress@amesa.org.za](mailto:congress@amesa.org.za)

## Application for financial support: AMESA Congress 2010

**Note: Closing date is 1 February 2010**

I, ....., would like to apply for financial support to attend AMESA Congress 2010.

**Surname:** .....

**First names:** .....

**Postal address:** .....

.....

**Postal code:** .....

**Institution:** .....

**Area of interest** .Tick:  Primary  Secondary  Tertiary

**Tel:** (Home) ..... (Work) ..... **Fax:** .....

**E-mail:** .....

### Complete 1 and 2 below and take note of 3:

1. I am an AMESA member. Tick:  YES  NO Membership number: .....
2. I am able to contribute R..... of the projected R..... costs for my attendance.
3. I undertake to write an article/report on AMESA Congress 2010 which may be published in *AMESA News*.

**Signature:** ..... **Date:** .....

### Note:

- o A typed ½ to 1 page motivation, as well as a detailed budget must accompany this application. The application will not be considered without a detailed budget.
- o Preference for funding will be given to paid-up AMESA members who will be participating in the congress programme