



# SAARMSTE

Southern African Association for Research in  
Mathematics, Science and Technology Education

## **2<sup>nd</sup> ANNOUNCEMENT AND CALL FOR PAPERS**

**27<sup>th</sup> CONFERENCE OF THE *SOUTHERN AFRICAN ASSOCIATION FOR  
RESEARCH IN MATHEMATICS, SCIENCE  
AND  
TECHNOLOGY EDUCATION***

**SAARMSTE 2019**

**TUESDAY 15 – THURSDAY 17 JANUARY 2019**

**CONFERENCE THEME:**

***Research for inclusive, relevant and equitable quality mathematics, science and  
technology education: Promoting research-based opportunities for all***

**HOSTED BY:**

**UNIVERSITY OF KWAZULU-NATAL (UKZN)**

**Venue: *Southern Sun Elangeni & Maharaj Hotel*  
Durban, South Africa**

**SAARMSTE Website: [www.saarmste.org/conferences](http://www.saarmste.org/conferences)**

**Email: [saarmste2019@gmail.com](mailto:saarmste2019@gmail.com)**

## ***SAARMSTE COMMITTEES 2018/2019***

### ***SAARMSTE EXECUTIVE***

|   |                            |   |
|---|----------------------------|---|
| President                                     | Prof Kenneth Ngcoza        | Rhodes University   |
| Past President                                | Dr Lyn Webb                | Nelson Mandela University                                       |
| Secretary/Treasurer                           | Dr Tulsi Morar             | Nelson Mandela University                                       |
| Chapter Representatives                       | Dr Audrey Msimanga         | University of the Witwatersrand                                 |
|   | Prof Washington Dudu       | North West University   |
| AJRMSTE Editor                                | Prof Fred Lubben           | Cape Peninsula University of<br>Technology & University of York |
| Research Capacity Building<br>Committee Chair | Prof Hamsa Venkatakrishnan | University of the Witwatersrand                                 |
| Secretariat (ex-officio)                      | Ms Carolyn Stevenson-Milln |   |

### ***SAARMSTE LOCAL CCONFERENCE ORGANISING COMMITTEE (LOC) 2019***

|                                  |   |
|----------------------------------|---|
| <b>Conference Chairperson</b>    | Prof Nadaraj Govender   |
| <b>Conference Secretary</b>      | Dr Tamirirofa Chirikure   |
| <b>Editor of Research Papers</b> | Prof Nadaraj Govender, Dr Ronicka Mudaly,<br>Dr Asheena Singh-Pillay, Dr Themba Mthethwa  |
| <b>Maths Coordinator</b>         | Dr Themba Mthethwa  |
| <b>Science Coordinator</b>       | Dr Ronicka Mudaly/ Dr Lebala Kolobe   |
| <b>Technology Coordinator</b>    | Dr Asheena Singh-Pillay   |
| <b>Fundraiser/Treasurer</b>      | Dr Themba Mthethwa  |
| <b>Programme</b>                 | Dr Angela James   |
| <b>Logistics/Marketing</b>       | Dr Zanele Ndlovu  |
| <b>Additional Members</b>        | Dr Busisiwe Precious Alant<br>Prof Sarah Bansilal<br>Mr Andy Chebure<br>Mrs Mary-Anne Good<br>Mr Malusi Sigried Hlongwane<br>Dr Lebala Kolobe<br>Mrs Bongeka Mabaso<br>Ms Nozuko Mfaniswa<br>Mr Thokozani Mkhwanazi<br>Mr Justin James Lesedi Molebale<br>Dr Leonard Molefe<br>Mr Merventharan P Moodley<br>Mrs Sebenzile Ngema<br>Mr Benjamin Shongwe<br>Dr Doras Sibanda<br>Mr Sandile Cleopas Zuma |

## ***OBJECTIVES OF THE SAARMSTE CONFERENCE***

Among the aims of SAARMSTE, according to its constitution are, to:

- promote the advancement of Mathematics, Science and Technology in Education (MSTE) in Southern Africa
- foster a sense of community among researchers in MSTe
- promote research to improve and develop MSTe programmes in response to current and future needs

The Annual SAARMSTE Conference is an important vehicle to address these aims.

## ***CONFERENCE THEME***

***Research for inclusive, relevant and equitable quality mathematics, science and technology education: Promoting research-based opportunities for all***

*Motivation:* Recognising that the world has changed dramatically in the past century, we are called to think more critically and to act decisively. Global issues of climate change, social inequality, quality education, gender etc. raises questions of the influence of SMTE/STEAM (where A is ‘Art in Science/Maths/Technology’) in transforming education for educating for the 21<sup>st</sup> Century competences. New problems from social, climatic, environmental, political, ICT media, and tools, forces us to reflect on the nature, relevance and quality of our learning, teaching and community engagement. Are we promoting quality education where all become literate, (including in mathematics, science and technology), contribute to being economically productive, participate in peace and growth in developing an equitable and just society? Are our theories, methodologies and practices still relevant for quality education in the present climate? Finally, how are we preparing our students for new challenges of the 21<sup>st</sup> Century?

## ***PROGRAMME***

Conference proceedings commence on Tuesday morning 15<sup>th</sup> January with workshops facilitated by invited keynote speakers. The formal opening of the conference and first plenary session commences on Tuesday 15<sup>th</sup> January. The conference ends directly after the Gala Dinner on Thursday 17<sup>th</sup> January 2019, i.e. **a full three-day conference** which consists of various types of presentations, described in the 1<sup>st</sup> Announcement and delivered by participating delegates.

The invited plenary speakers are:

1. **Dr Busisiwe Alant**, Senior Lecturer in Technology Education at the School of Education, University of KwaZulu-Natal
2. **Prof Robert Berry**, Associate Professor in Curriculum Instruction and Special Education, in the Curry School of Education, University of Virginia. Prof Berry’s discipline is in mathematics education.
3. **Prof Judith Lederman**, Associate Professor and Director of Teacher Education, Department of Mathematics and Science Education at Illinois Institute of Technology, Chicago. Prof Lederman’s discipline is in science education.

### **IMPORTANT FINAL DATES to diarise**

|  |                              |
|--|------------------------------|
| Online submission of papers for review – <b>Extended to</b>      | <b>Tuesday 31 July 2018</b>  |
| Online conference registration                                   | <b>Friday 31 August</b>      |
| Final submission of re-worked papers                             | <b>Sunday 29 September</b>   |
| Application for Post-Conference Writing Clinic                   | <b>Thursday 31 October</b>   |
| Payment of registration fees by all presenters (*See note below) | <b>Saturday 30 November</b>  |
| Provisional programme released to presenters                     | <b>Wednesday 4 December</b>  |
| Final programme released to presenters                           | <b>Wednesday 11 December</b> |

**Note: \*If final arrangements for payment are not processed by Saturday 30/11/18 paper(s) will NOT be included in the conference programme**

### **BOOK OF LONG PAPERS/PROCEEDINGS & MEMORY STICK**

- A Book of Long Papers/Proceedings (with ISBN number, publication date and review procedures) is compiled from all accepted Long Papers. These Long Papers are FULLY peer reviewed and may attract DHET subsidy
- A Memory Stick of all presented papers is compiled from accepted Long and Short Papers, Snapshots, Round table and Symposia. (Please note that Short Papers are NOT fully peer reviewed and thus do not attract subsidy).
- Short Papers, Snapshots, Roundtables, Symposia and Posters together with the Book of Long Papers and Conference Programme will be available on a memory stick and on the conference website.

Delegates may *pre-order* the *hard* copy printed and bound Book of Long Papers/Proceedings when processing their registration online, [www.saarmste.org/conference](http://www.saarmste.org/conference) (There is a charge for printed hard copies).

### **PROGRAMME PRESENTATIONS**

Refer 1st Announcement for:

- A. Invited Presentations
  1. Plenary Sessions
  2. Plenary Speaker Workshops
- B. Submitted Peer Reviewed Paper Presentations
  1. Long paper
  2. Short paper
  3. Symposium / panel paper
  4. Snapshot paper
  5. Guided Post session

Criteria for submitting the above presentation options and format

**NB.** In addition to the above details found in the 1<sup>st</sup> Announcement it should be noted that:

- 1. Long Papers:** In accepting a Long Paper for presentation at the SAARMSTE conference, the Review Panel presumes that:
  - a. The paper is original and has not been published elsewhere
  - b. Permission will be granted by the author for the accepted long paper to be published in the accredited Book of Proceedings

- c. At least one of the authors will register and attend the conference to present the paper
- d. First authors may only present one long paper at each conference

Long papers are fully peer reviewed and thus attract DHET subsidy

2. **Short Papers:** After acceptance of the 1 500 word short paper, authors may elect to develop their research further into a 3 600 word paper which will NOT be reviewed but, after consultation with the editors, could be published in the Book of Short Papers, but will not attract subsidy

### ***POST-CONFERENCE WRITING CLINIC***

Immediately following the Conference (Friday 18th January), a Writing Clinic is scheduled to take place to develop draft manuscripts and/or short papers into articles for journal submission. The Chief-Editor of AJRMSTE (**Professor Fred Lubben**), together with members of the Editorial Team, facilitate the Writing Clinic.

**NB.** For short paper authors, there is the potential for feedback, which may be turned into Journal article(s) in the AJRMSTE or other recommended and accredited Journals within MSTE.

Who should attend?

1. Those who submit long papers but are advised that a short paper is more appropriate
2. All those who submit, and have accepted, a short paper for participation in the conference

**NB.** Spaces in the Writing Clinic are limited.

Applications, ACCOMPANIED BY A DRAFT PAPER, should be submitted directly to Prof Fred Lubben: [fred.lubben@york.ac.uk](mailto:fred.lubben@york.ac.uk) by 31 October 2018

**NB.** Those who are accepted to take part in the writing clinic should make their own accommodation arrangements for the additional night(s).

## ***DELEGATE REGISTRATION TO ATTEND THE CONFERENCE***

Those interested in attending the 2019 SAARMSTE Conference should register online through [www.saarmste.org/](http://www.saarmste.org/)

### ***REGISTRATION FEES***

There are TWO different levels of registration fees, depending on whether the delegate is a paid-up member of SAARMSTE or not.

**Note: Members constitute those who attended and participated in the SAARMSTE 2018 Conference and/or those individuals who have paid their membership fee up to and including the year 2018.**

| <b>MEMBERSHIP STATUS</b>  | <b>EARLY BIRD<br/>Payment no later than<br/>31 October 2018</b> | <b>LATE PAYMENT<br/>Payment between 1 and 30<br/>November 2018</b> |
|---|---|--|
| <b>Valid 2018 paid up member</b><br>Discounted conference fee<br>includes 2018 membership fee | R3700   | R3900  |
| <b>Non-members and/or lapsed<br/>member.</b>  | R4150   | R4450  |
| <b>Retired SAARMSTE<br/>members (over 65 years)</b>   | R3700   | R3700  |

NB: WHEN PROCESSING PAYMENT KINDLY use ref: **delegate name, or invoice number.**

### **Payments from outside South Africa**

Registration fees paid from outside South Africa must include a bank charge of R200

### ***CANCELLATION OF REGISTRATION***

The following cancellation penalties apply:

Before 31 October 2018: full refund  
Between 31 October and 15 December 2018: 40% refund  
After 15 December 2018: no refund  
Refunds should be paid into the account from which the registration fee emanates

### ***SAARMSTE CORRESPONDENCE DETAILS***

Please address your SAARMSTE CONFERENCE correspondence to

Ms Carolyn Stevenson-Milln  
SAARMSTE Secretariat

Cell: +27 (0)82 977 9858

Email: [saarmste2019@gmail.com](mailto:saarmste2019@gmail.com)

General SAARMSTE queries should be addressed to the SAARMSTE Secretariat

Ms Carolyn Stevenson-Milln  
SAARMSTE Secretariat

Cell: +27 (0)82 977 9858

Email: [saarmste@gmail.com](mailto:saarmste@gmail.com)

## **CONFERENCE BURSARIES**

Three bursaries are available to assist financially strapped delegates whose institutions do not provide financial support, who under these circumstances would be otherwise unable to attend the conference. Such a bursary covers conference registration fees and accommodation in student residences for four nights only. Any additional costs (such as travel) must be covered by the delegate. The following criterion applies:

- The applicant must be attending the SAARMSTE conference for the first time
- The applicant must present a paper (either a short paper or a long paper)
- The applicant must be the first author of the paper, and must be the presenting author
- The applicant must be unable to obtain funding from their institution

For those who are interested in applying for a bursary kindly complete the application form at the end of this Announcement or refer to the Conference website:

[www.saarmste.org/conferences](http://www.saarmste.org/conferences)

## **SAARMSTE AWARDS**

Two awards may be awarded at the Gala Conference Dinner of the Annual Conference. These are:

### **1. SAARMSTE EARLY CAREER PUBLICATION AWARD**

To encourage new researchers in mathematics, science and technology education, SAARMSTE offers an award for the best article published in the previous year by an emerging researcher. This award is given to an author in the early part of her/his career. The award, for publishing a remarkable and excellent report in the African Journal of Research in Mathematics, Science and Technology Education (AJRMSTE) on a piece of mathematics, science or technology education research.

#### ***Eligibility***

Only candidates who satisfy the following criteria will be considered. They must:

1. Be a current SAARMSTE member
2. Have attained a PhD degree five or less years ago
3. Have published a remarkable and excellent paper in AJRMSTE during the year preceding the relevant SAARMSTE Conference
4. Be the sole or main author of the paper concerned

#### ***Judging***

- The award is made on the basis of evidence that the paper makes a significant, relevant and original contribution to the field of Mathematics, Science or Technology Education.
- The evidence is assessed through interrogating the quality of the qualifying papers identified, the supporting documentation (CV and letter describing the process of the paper development).
- The AJRMSTE Editorial Team proposes candidates for the SAARMSTE Early Career Publication Award, for ratification by SAARMSTE's Executive Committee.

Awards are not necessarily given on an annual basis; i.e. they are awarded only where candidates are considered deserving of the award. The decision of the SAARMSTE Executive Committee is final.

*Acknowledgement: The above award is adapted from the MERGA Early Career research award.*

## 2. SAARMSTE SERVICE AWARD

This award is in acknowledgement of a SAARMSTE member who is found to have made a substantive contribution to a range of SAARMSTE activities and to SAARMSTE as an organisation.

Nominations for either award, (accompanied by a letter of motivation), should be sent to the Association Secretariat at: [saarmste@gmail.com](mailto:saarmste@gmail.com) **The deadline for nominations: 31 October 2018 for the 2019 awards.**

### *CONFERENCE ACCOMODATION and OTHER INFORMATION*

#### **Accommodation - Durban. Kindly direct bookings and/or queries to the supplier of your choice**

| Venue  | Rating (google rating ) | Telephone          | Single Room                                       | Double-sharing  | Further information                       | Website   |
|--|-------------------------|--------------------|---|---|---|---|
| Southern Sun Elangeni & Maharani (Conference Venue)        | 4 star                  | +27 (0)31 362 1300 | R1450.00 bed and breakfast                        | R1825.00 per room, per night includes breakfast           |   | <a href="https://www.tsogosun.com/southern-sun-elangeni-maharani">https://www.tsogosun.com/southern-sun-elangeni-maharani</a>               |
| Garden Court   | 3 star                  | +27 (0)31 337 3341 | R1245.00 bed and breakfast                        | R1520.00 per room, per night includes breakfast           |   |   |
| Pavilion Hotel (conference price)<br>Book by 15th Nov 2018 | 3 star (3.8)            |                    | R803.00 (extra: breakfast at R130 pp - buffet)    | R 904.00 (double bed /twin) (extra: breakfast at R130 pp) | 2/3/4 sleeper rooms with single beds      |   |
| Parade Hotel   | 2 (3.7)                 | +27 (0)31 3374565  | R600.00 per night per person Includes breakfast   |   |   | <a href="https://www.hotelscombined.co.za/Hotel/Parade_Hotel_Durban.htm">https://www.hotelscombined.co.za/Hotel/Parade_Hotel_Durban.htm</a> |
| Beach Hotel  | 3 (3.7)                 |                    | R904.00 Includes breakfast Single bed for sharing | R1200.00 twin bed, Includes breakfast                     | 4/ 6 sleepers with self-catering services |   |
| Tropicana  | 3 (3.7)                 | +27(0)31 368 1511  | R1100.00 Single Includes breakfast                | R1400.00 sharing per room Includes breakfast              |   |   |
| Coastlands (Musgrave hotel)                                | 3-4                     | +27(0)31 271 8 271 | R950.00 Includes breakfast                        | R1100.00 Includes breakfast                               |   | <a href="http://www.coastlands.co.za">www.coastlands.co.za</a>  |
| Royal Hotel  | 3-4                     | +27(0)31 271 8271  | R800.00 Includes breakfast                        | R950.00 Includes breakfast                                |   |   |
| Coastland Hotel and self-catering (conference price)       | 3-4                     | +27(0)31 271 8271  |   | R 750.00 two persons sharing<br>R990.00 4 persons sharing | Self - catering                           |   |



| Venue  | Rating (google rating ) | Telephone            | Single Room | Double-sharing  | Further information | Website  |
|--|-------------------------|----------------------|-------------|---|---------------------|--|
| SUN F1   | 1<br>(3.5)              | +27(0)31<br>301 1551 |             | R550.00<br>per room (3<br>max-double<br>bed and a<br>bunker)<br><br>Extra: R55<br>breakfast pp. |                     | <a href="mailto:Durban@tsogosun.com">Durban@tsogosun.com</a> |
| <b>NB.</b> University Residence Accommodation – is NOT available for this conference |                         |                      |             |   |                     |  |

The 27<sup>th</sup> SAARMSTE conference, in 2019, is scheduled to be hosted at the Southern Sun Elangeni & Maharani in Durban, South Africa where the conference organisers have negotiated a reasonable conference package along with accommodation (based on availability of rooms. Early booking is recommended), at the indicated approximate rates per night for some hotels. *Prices subjected to change.*



*"Located on the spectacular Durban beachfront, (as indicated above), Southern Sun Elangeni & Maharani is undoubtedly the brightest star on the Golden Mile. Overlooking some of the best beaches in KwaZulu-Natal, the hotel complex is just metres from the vibrant boardwalk and many other local attractions."*

For more information on the venue, please visit the Southern Sun Elangeni & Maharani website <https://www.tsogosun.com/southern-sun-elangeni-maharani>

**Telephone** +27 (0)31 362 1300

**Physical Address** 63 Snell Parade  
Durban  
South Africa

**GPS Co-ordinates** -29.846559, 31.034663

**Parking:** Enquiries should be directed to the Hotel of your choice

### ***INTERNATIONAL AIRPORT***

The closest commercial airport: King Shaka International Airport (DUR), to KwaZulu-Natal is located 32 kms form the city centre.

### ***TAXIS, SHUTTLES AND CAR HIRE***

Many hotels provide a shuttle service to and from the Airport, in addition the following options are available at King Shaka International Airport: [approx. rate R12-15 per km]

UBER Durban +27 (0)79 577 6903

Neelsie's Shuttle service

+27 (0)83 320 8479

[info@neelsieshuttles.co.za](mailto:info@neelsieshuttles.co.za)

(approx. R420 for two people, special car-conference rate)

EZSHUTTLE +27 (0)86 139 7488 or e-mail [info@ezshuttle.co.za](mailto:info@ezshuttle.co.za)

Airport BUS Shuttle: Operating Hours: 5:00am - 8:00pm

Tel: +27 (0)31 465 5573 / +27 (0)31 465 1660 / +27(0)82 340 9990

Email: [airportbus@mweb.co.za](mailto:airportbus@mweb.co.za)



## APPLICATION FOR FINANCIAL SUPPORT

I would like to apply for financial support to attend SAARMSTE 2019 hosted by the University of KwaZulu-Natal

### Eligibility Criteria\*

|   |        |
|---|--------|
| Are you a SAARMSTE member as at 2018?   | Yes/No |
| Will this be your first attendance at a SAARMSTE Conference?                          | Yes/No |
| Have you submitted a Long or Short paper for the Conference? Please attach submission | Yes/No |
| Are you the first author who is presenting the paper at the Conference?               | Yes/No |
| Are you unable to obtain funding from your institution to attend the Conference?      | Yes/No |

\* You must have answered "Yes" to all criteria to be eligible to apply.

|  |        |
|--|--------|
| Are you a full time/part time registered <b>student</b> at a University?<br>If so please provide details:<br><ul style="list-style-type: none"> <li>• Name of University</li> <li>• Degree for which registered</li> <li>• Year of study</li> <li>• Name and contact details of supervisor</li> </ul>              | Yes/No |
|  |        |
|  |        |
|  |        |
| Are you a full time/part time academic member of <b>staff</b> of a university?<br>If so please provide details:<br><ul style="list-style-type: none"> <li>• Name of University</li> <li>• Department</li> <li>• Number of years at university</li> <li>• Name and contact details of Head of Department</li> </ul> | Yes/No |
|  |        |
|  |        |
|  |        |

### Applicant Details

|                                      |  |         |  |
|--------------------------------------|--|---------|--|
| Surname                              |  | Name(s) |  |
| Institution/<br>Organisation         |  |         |  |
| Postal Address                       |  |         |  |
| Telephone                            |  |         |  |
| Cell                                 |  |         |  |
| Email                                |  |         |  |
| Supervisor's name<br>(if applicable) |  |         |  |

I, name surname, understand that this bursary only covers the conference registration fees and basic accommodation for four nights, and that all other expenses will be for my own account. I also undertake to write a 10-15-line article/report on the Conference by the end of January 2019, which may be published on the SAARMSTE website.

**MOTIVATION** - Maximum ¾ page please.

- Please attach a signed letter from your supervisor or Head of Department which includes a statement of adequate progress in your studies/ employment and a declaration that there are no other avenues for financial support from your university.
- Please attach a copy of your paper submission for SAARMSTE 2019

I hereby declare that all of the information supplied in this application is true and correct.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Deadline for Conference Application in regard to Financial Support submissions:**  
**30 October 2018**

Please send completed application form to: the SAARMSTE Secretariat, as an email attachment to [saarmste@gmail.com](mailto:saarmste@gmail.com)