

Make the change – STEM education and maths reform

6-8 August 2018, Kempton Park, Gauteng
#STEMreformSA

The [‘STEM Education and Maths Reform’](#) Discussion Forum will be held from 6-8 August 2018. (STEM stands for science, technology, engineering and mathematics.) [proSET](#) (Professionals in science, engineering and technology) is hosting this 3-day event with NSTF member, [Ukuqonda Institute](#). [proSET](#) is a sector of the [National Science and Technology Forum \(NSTF\)](#) representing Professional Bodies and Learned Societies.

Part 1
STEM education


Calling:
 Academics or researchers in STEM
 Engineers and technologists
 Stakeholders concerned with education
 Professional associations and learned societies



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Part 2
primary maths education reform

Calling: maths education specialists

Be part of the conversation.
[Click here to register](#)

NSTF members have free access to Day 1 (STEM education in general). Non-members will pay R1000 excl VAT for Day 1. All those who register for Day 2 and 3 will need to pay R1000 excl VAT (focus on primary maths education) including NSTF members.

South Africa continues to suffer from problems in its school education system, notably in STEM subjects. There is a dire need for high level skills in STEM areas. All along the education ‘pipeline’ there are problems affecting the next level. Studies and statistics call for urgent intervention across all STEM subjects and all grades of schooling. See the [concept document](#) for further background.

Event objective:

- To facilitate interaction between the various science, engineering and technology (SET) professionals under [proSET](#)/NSTF and maths education experts
- To gather the opinions of a wide range of SET professionals about STEM education in South Africa, including skills requirements
- To intensively discuss the primary school maths curriculum to identify the problems leading to rote learning and lack of insight, and to come up with interventions with substantial impact on improving maths teaching in South African primary schools

Envisaged outcomes: To collate feedback and send to the Department of Basic Education (which is revising national policies/curricula) and the Provincial Education Departments.

You will need to register for each part of the 2-part Discussion Forum:

Part 1

6 August (Day 1): STEM Education in general – policy and research

Broad participation is welcomed on this day. Please give your feedback as:

- An academic or researcher in any field of STEM
- Practicing engineers and technologists
- All stakeholders concerned with the state of education in our country
- The event is hosted by [proSET](#) so it is important for representatives of professional associations and learned societies to be there

(Note that an exciting online tool is being developed by [proSET](#). This is for learners to discover where STEM is found in the physical world. There will be discussion on this to get stakeholders’ feedback and input.)

Delegates from NSTF member organisations attend free of charge. Non-members will pay R1000 (excl VAT) for Day 1.

Part 2

7-8 August (Day 2 and 3): Focus on Primary Maths Education – reform of the curriculum

Part 2 is a two-day symposium, specifically for maths education specialists to workshop issues of curriculum reform.

The theme is ‘Challenges of and opportunities for reform in numeracy and early algebra education’. The purpose of the technical symposium is to propose reform measures for supporting teacher trainers, students, in-service teachers, and curriculum practitioners in their efforts to provide the best for learners. It is an occasion for intensive deliberation based on international research, and to collate perspectives on the challenges involved in mathematics education reform. The outcomes are to be sent to the Department of Basic Education (which is revising national policies/curricula) and the Provincial Education Departments.

The speakers/participants include Paul Cobb (USA) and Koeno Gravemeijer (Netherlands) who will both fully participate in the symposium as a whole. Presentations and discussions will take place with reference to the paper [Shortcomings of mathematics education reform in the Netherlands: A paradigm case?](#) by Gravemeijer et al.

Those with a specific interest in Primary Maths Education are encouraged to attend. The attendance fee is R1000 (excl VAT) for ALL delegates (members and non-members of the NSTF).

Outputs: As is usual for [NSTF Discussion Forums](#), the following outputs will be produced through this initiative (all of this will be made available on the [NSTF website](#)):

- A set of proceedings describing the presentations made and the audience discussions
- Summary and recommendations capturing the outcomes
- Media release lobbying the outcomes through the NSTF database (over 10,000 contacts)
- Speakers’ PowerPoint presentations will be available
- Video clips of presentations
- Photographs
- Concept document
- Reading list



About the NSTF (including [proSET](#)): The NSTF is the [stakeholder forum](#) representing the SET and innovation community in South Africa. The [membership](#) ranges from research institutions, universities and state entities to business, as well as professional societies ([proSET](#)) and civil society. The NSTF engages with [policy issues](#) across various government departments and promotes collaboration and critical thinking among the broad range of stakeholders. [NSTF Discussion Forums](#) gather stakeholders together, across the public and private sectors, to put forward recommendations to influence government policies.

Delegate registration information

Note: The attendance fee for delegates attending Part 1 and 2 (Day 1, 2 & 3) is R1000 (excl VAT) for NSTF member organisations, and R2000 (excl VAT) for non-members of the NSTF.

- **Date:** Monday 6 August to Wednesday 8 August 2018
- **Time:** 08:30 for 09:00 to 17:00
- **Venue:** [Premier Hotel OR Tambo](#), 73 Gladiator Street, Rhodesfield, Johannesburg, Gauteng
- **Programme:** [Click here](#)
- **RSVP:** [Register online](#) your participation in the different events by no later than Wednesday 1 August 2018. You can either register for Day 1, or Day 2 and 3, or for all three days – Day 1, 2 and 3. *Terms and conditions apply.*

Day 1 (STEM Education in general – policy and research) is FREE for all employees of [NSTF Member Organisations](#) across six sectors, as well as government.

We invite you to join us for lunch and use the opportunity for further discussion and networking.

Registration information***

Non-Member Organisations of the NSTF: Attendance is open for anyone interested but **non-members of the NSTF will be charged as explained on the different registration forms (all fees are excluding VAT). The registration fee includes attendance, documentation relating to the event, conference stationery, refreshments and lunch.**

Please note that if you do not RSVP, the NSTF cannot be held responsible for any unforeseen changes or cancellations of programmes. Communications are sent only via e-mail or through notifications on the [NSTF website](#).

***Non-members of the NSTF – Please note, your registration fee for this [Discussion Forum](#) contributes directly to the non-profit mission of the NSTF, as a collaborative consultative forum and watchdog for influencing the formulation and delivery of science, engineering, technology (SET) and innovation public policy in South Africa. Furthermore, the NSTF:

- Provides information
- Promotes SET and innovation
- Hosts platforms for networking and debate on current SET issues
- Engages with government on SET-related policy

About the NSTF

The National Science and Technology Forum (NSTF), established in 1996, is a broadly-representative stakeholder body for all SET and innovation organisations in South Africa, which seeks to influence policy formulation and delivery.

The NSTF Awards are unique in SA, recognising the outstanding contributions of individuals and groups to SET and innovation.

The science bursaries page <http://www.nstf.org.za/bursary/> provides information on bursaries and bursary providers for science, engineering and related studies.

For more information

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