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NSTF

S.E.T. for socio-economic growth



CALL FOR CONTRIBUTIONS: STEMulator e-learning platform

Dear NSTF proSET member representative,

The STEMulator is now live, for you to Explore > Discover > Learn!

The proSET (Professionals in Science, Engineering and Technology) Committee is proud to announce that the [STEMulator](#) e-learning platform has been launched and is now freely available on the internet to **attract students/youngsters into the exciting STEM world** and **provide guidance on fields of study and careers**. The [STEMulator](#) is a virtual world, full of animated content, from beating hearts to powerful jet engines, where youngsters/children can **Explore > Discover > Learn**, "The Hidden World Revealed".

The STEMulator is a proudly South African platform, unique in the world as far as we know. It is an initiative and flagship project of proSET, developed under the leadership of the [proSET Committee](#). Now we are inviting you, our members, to join in and make a difference. Send us content/contributions for the STEMulator and stand a chance to win one of several cash prizes! You are also invited to find a place for your organisation on the STEMulator platform where we will include hyperlinks through to your own website.

For the past six years proSET has annually called for proposals for funding of member projects. For 2020 the Committee decided to launch a competition - for proSET members ONLY. We are calling for educational STEM material – animations, compact videos or diagrams – which can be added into the individual pages of the STEMulator. Five proSET members stand a chance to win R12 000 (Twelve Thousand Rand) each – R11 000 for the organisation and R1000 for the individual who finds/contributes the content to feature on the STEMulator website. The identity of the organisations and societies submitting material will feature on the STEMulator platform, and the winners will be publicised and their contributions marked with a trophy icon.

We look forward to receiving your entries. **Closing Date is 27 November 2020.** Look out for our communication about the winning contributions by the end of the year or early next year. We wish you all the best with your contribution.

PLEASE SEND THIS NOTICE TO EVERYONE IN YOUR PROFESSIONAL SOCIETY – Individuals has a chance to win money for the best contributions

Go STEM!

Yours sincerely,

Ms Jansie Niehaus
Executive Director (NSTF)

Mr Dawie Botha
Co-chairperson (proSET)

Dr Kerstin Kruger
Co-chairperson (proSET)

NSTF and proSET

proSET is a subset of the [National Science and Technology Forum \(NSTF\)](#). NSTF has a [25 year history](#) of promoting Science, Engineering and Technology (SET) and innovation in South Africa and is the most representative stakeholder body in South Africa, representing [seven membership sectors](#) of which proSET is one. The proSET sector represents about 40 professional bodies and learned societies active in the field of Science, Engineering and Technology. Its aims are to enhance national exposure for, and to create an awareness of, the valuable role that professionals in these categories play.

Why should STEMulator be of interest to SET professionals?

STEMulator is a unique tool for young people in general as well as those who are interested in science, engineering and technology (SET) – to **Explore > Discover > Learn** about the important role that SET professionals play in everyday life. Furthermore, STEMulator is a way to promote SET education, a focus on SET subjects, SET career information and where to study in SET-related fields. It also affords opportunity for professional SET societies to showcase their professions and in doing so introduce and provide information about their professional services. This is equally important for young people who are considering a career, decision makers at all levels, including society and government and obviously to highlight the importance of SET in the world of today – without the SET professionals we will not survive as a country nor as humanity.

How does STEMulator work?

STEMulator features a [virtual landscape](#) with **clickable** objects or areas, each containing objects that open up and display inner structures and working parts. The first ten fields that feature in this virtual landscape include [automotive engineering](#), [agriculture](#), [energy](#), [human physiology](#), [hospitals](#), the [natural environment](#) and [construction](#). Each of these fields can be explored by a mere click (try the hyperlinks in this text) which opens up demonstrations with related descriptions and information. The users of STEMulator, who should include learners, will find further useful information in the STEMulator to choose a career, enhance a school project or facilitate understanding of the all-important SET sector.

Example: **click** on the [mountain and clouds](#) to reveal the natural environment, then **click** on individual items to reveal pictures, diagrams, animations and information on rain and the water cycle, geology and the rock cycle, the sun and more.

Careers: At the bottom of each page is a window listing various related career options, also clickable to provide descriptions and guidance and hyperlinks through to learning institutions offering relevant courses.

Teachers can use the STEMulator in the following ways:

The STEMulator boasts a virtual school which is currently being populated with curriculum-related content both internally and externally (hyperlinks). Teachers will find everything in its place. Teachers will be able to use the STEMulator:

- in the classroom with a central computer and data projector;
- in a computer centre or using tablets, allowing learners to explore individually or in groups;
- as a source of information for the teacher when preparing teaching and learning material.



How to enter the proSET STEMulator 2020 competition

The [STEMulator](#) is continually expanding. New zones and items are being added all the time. Now it's your turn to submit any STEM-related material for inclusion. Think mining, astronomy, chemistry, zoology, botany, climate, environment, engineering and technology etc. Then there are the 4th Industrial Revolution, computers, automation, and many more related topics.

Entry is simple:

1. The Subject of your email must be “**proSET STEMulator Competition 2020**”.
2. Provide your full name and contact details (and employer details, - if relevant).
3. Provide the name of the proSET member organisation/institute on whose behalf you are entering.
4. If both the organisation and an individual are to be acknowledged, if the submission wins a prize, please provide full names and contact details of both.
5. Identify your field of STEM.
6. Submit any suitable animated material, be it a clever gif or a compact video clip, demonstrating or explaining some concept, inner workings, process or activity. (see note below on YouTube material) – clearly acknowledging any source, if applicable.
7. Submit no more than 200 words of explanatory text suitable for a high school learner (note that the [STEMulator](#) is primarily a visual platform). We'll do the final editing.
8. Send your email, complete with your material as an attachment, to the NSTF offices for attention of Ms Jane Mokgwatshane at jmokgwatshane@nstf.org.za

This is a chance for you and your society/organisation/professional body to contribute and feature on the [STEMulator](#) online as well as on memory sticks and server-routers that are being distributed to schools. In doing so, join hands with the proSET committee and NSTF in promoting STEM to the youth of South Africa as well as creating a better understanding of SET which at its very core is the heart of a healthy economy and the success of a healthy and thriving society.

Terms and Conditions for submitting a contribution to the STEMulator and thereby entering this 2020 proSET competition:

1. Only members of organisations that are themselves paid-up [members of the NSTF under the proSET sector](#), can enter the competition;
2. The material must clearly relate to the STEM world.
3. The submission must be visual material such as diagrams, animations, gifs and compact videos that can be uploaded on the **STEMulator** website, accompanied by no more than 200 words of explanatory text suitable for a high school learner.
4. By entering you give your permission to proSET and NSTF to use your material on the STEMulator platform, irrespective of whether your entry wins the proSET **STEMulator** competition or not.
5. All contributions and sources will be clearly acknowledged.
6. Prizes will only be awarded to suitable and deserving material.
7. The judging panel will be the proSET committee.

YouTube – the **STEMulator** supports hyperlinks through to selected YouTube content. Your referrals would be most welcome. However there are stand-alone versions of the **STEMulator** that limit the file sizes of the content. The preferred format is short animations, usually gif files. We can compress mpeg and mp4 files.



About the NSTF

The [National Science and Technology Forum](#) (NSTF), established in 1995, is a broadly-representative stakeholder body for all science, engineering and technology (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 provides information on bursaries and bursary providers for science, engineering and related studies.

Disclaimer

The NSTF has taken all practical measures to ensure that the material contained in this newsletter is correct. The NSTF reserves the right to make changes as it deems necessary.

Privacy

Registration details submitted to the NSTF will be treated confidentially and will only be used by NSTF to communicate with its members and subscribers.

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