

**Call for Doctoral Students
to participate in the**

***2nd Southern African
Young Scientists Summer Programme
(SA-YSSP)***

24 November 2013 – 22 February 2014

Closing date: 16 September 2013

Background

The National Research Foundation (NRF), as IIASA's National Member Organisation (NMO), in collaboration with the Department of Science and Technology (DST) and the International Institute for Applied Systems Analysis (IIASA), is pleased to announce the second joint *Call for Doctoral Students* in continuing the **Southern African Young Scientists Summer Programme (SA-YSSP)**. The Programme was launched by the former Minister of Science and Technology in November 2011. The SA-YSSP is an annual three-month education, academic training, and research capacity-building programme jointly organised by the NRF, DST, and IIASA. The University of the Free State successfully hosted the inaugural SA-YSSP during 2012-13, and will again host the second SA-YSSP during 2013-14.

Objective of the SA-YSSP

The aim of the SA-YSSP is to provide an opportunity for excellent young doctoral students to advance their research under the direct supervision of senior scientists from IIASA and South African research institutions, and at the same time contribute to IIASA's on-going scientific agenda and to the DST's strategic research agenda as documented in the 'Grand Challenges'.

The programme offers scientific seminars covering themes in both the social and natural sciences, often with policy dimensions, to broaden the participants' perspectives and strengthen their analytical and modelling skills. Keynote lectures are delivered by national and international leaders in their respective research fields, partly drawn from IIASA's widespread network of alumni and collaborators, as well as from the NRF's extensive international networks of excellence. The programme will be enhanced with specific field trips and cultural excursions, and may involve networking with national research programmes.

To ensure a rich international mix of participants and allow for exchanges and collaboration on projects that address global and regional challenges, the principal intake for the SA-YSSP from South Africa and the Southern African Development Community (SADC) will be complemented with 25% of placements reserved for young scientists from other IIASA member countries. A total of 30 SA-YSSP participants will be selected.

The SA-YSSP's curriculum will provide these young and emerging researchers with the following benefits:

- Supervision by experienced IIASA and South African scientists on a research project that is relevant to the participant's doctoral research programme, as well as contributing to collaborative research by the supervising senior scientists.
- Broadening their research into interdisciplinary and trans-boundary research relevant to national, regional, and global needs.
- Opportunities for research publications in internationally accredited/ recognised scientific journals in collaboration with IIASA and senior South African scientists.
- Exposure to international research through interactions with national and international experts taking part in the programme's supervision and seminar series.
- Exposure to local, national, and regional research programmes.
- Opportunities to build long-lasting collaborative contacts with the senior supervisors and with other programme participants.

Collaboration with IIASA and DST

IIASA is an independent international non-governmental research organisation, headquartered in Laxenburg, Austria, that provides science-based insights into complex global, regional, and national problems. IIASA conducts policy-oriented scientific research in three global problem areas:

- (i) Energy and climate change
- (ii) Food and water
- (iii) Poverty and equity.

Its three cross-cutting research areas are:

- (i) Drivers of global transformations
- (ii) Advanced systems analysis
- (iii) Policy and governance.

The following are IIASA's current Research Programmes:

- (i) Advanced Systems Analysis
- (ii) Ecosystems Services and Management
- (iii) Energy
- (iv) Evolution and Ecology
- (v) Mitigation of Air Pollution and Greenhouse Gases
- (vi) Risk, Policy and Vulnerability
- (vii) Transitions to New Technologies
- (viii) World Population
- (ix) Water.

South Africa's engagements with IIASA and specifically with regard to the SA-YSSP relate primarily to the DST's 'Ten Year Innovation Plan,' which has identified five 'Grand Challenges' of which the latter three are particularly relevant for the SA-YSSP, serving as enhancements and being complementary to IIASA's research areas:

- (i) Farmer to Pharma
- (ii) Space Science
- (iii) The Global Change
- (iv) Energy
- (v) Human and Social Dynamics.

Two primary cross-cutters between IIASA's and DST's agendas with regard to the SA-YSSP are human capital development with special focus on young and emerging researchers, and policy impact.

Applying to the SA-YSSP Programme

This Call for Participants is meant for doctoral students from (a) South Africa, (b) SADC, and (c) IIASA member countries. Option (a) refers to participants registered at a public South African institution, irrespective of their nationality; option (b) refers to participants registered at an institution in a SADC country other than South Africa, irrespective of their nationality; and option (c) refers to participants registered at an institution in an IIASA member country other than South Africa, irrespective of their nationality, as well as to participants being a national of an IIASA member country other than South Africa, irrespective of the country of their registration.

The general eligibility criteria of this call are as follows:

- The applicant must be currently registered for a doctoral programme.
- The applicant must have the ability to work independently and to interact with other scientists.
- The applicant must be fluent in English and have the ability to communicate in a scientific environment.
- The applicant must have the willingness to participate in a range of interdisciplinary scientific activities.
- The applicant must be committed to submitting interim reports as well as completing the SA-YSSP research by submitting a resultant manuscript to an international scientific journal.

Structure of the SA-YSSP

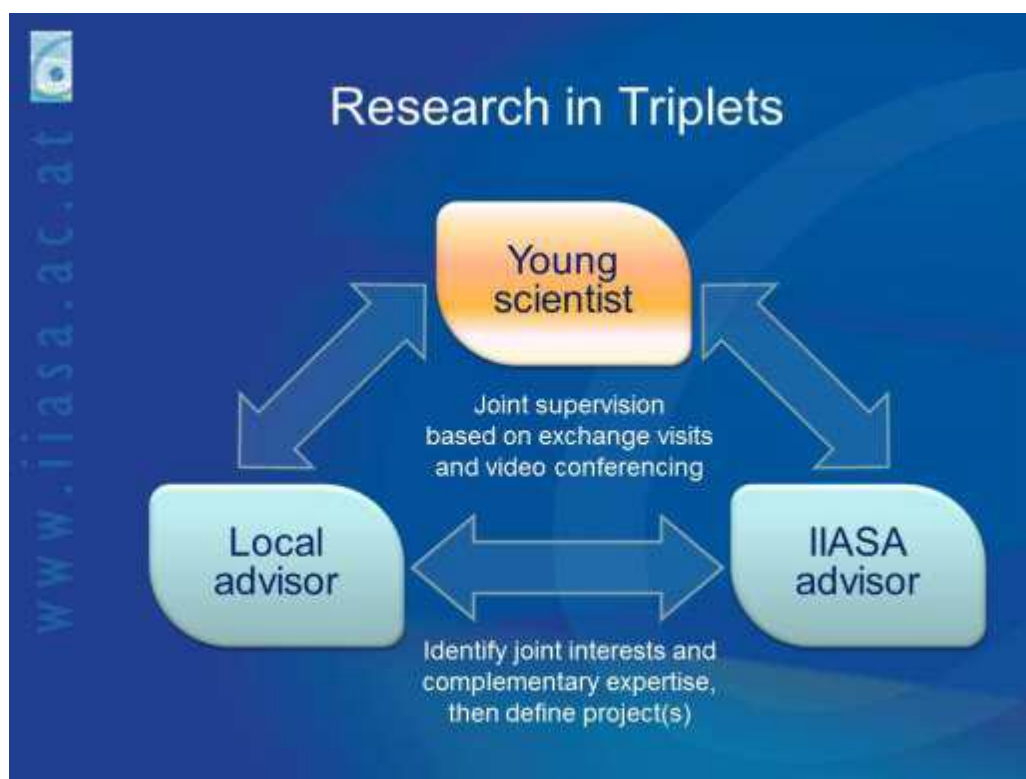


Figure 1 Research in Triplets

The SA-YSSP will be based on the “Research in Triplets” framework (Figure 1), through which one South African researcher and one IIASA researcher will jointly supervise one or more SA-YSSP young scientists (in selected cases, there may be more than one South African or IIASA supervisor).

It is anticipated that the “Research in Triplets” format will realise a mutually beneficial environment contributing to the following desirable outcomes:

- Strengthening and extending collaborative links between the South African research community and IIASA
- Allowing all collaborating scientists, and especially the participating young scientists, to learn from the experience of their colleagues
- Fostering innovative research in South Africa
- Constructively contribute to IIASA’s research agenda.

SA-YSSP Supervisors

The NRF, DST, and IIASA have selected 19 supervisor teams for the SA-YSSP. These teams of scientists have jointly defined descriptions of research themes that will serve as the basis for supervision of one or more SA-YSSP participants; as part of these descriptions, recommended-reading lists have been provided for the information of potential participants (see Annex A).

Arrangements for SA-YSSP Participants

Each SA-YSSP participant will be associated with one of these supervisor teams. Applicants are therefore invited to indicate their preference for **up to three research themes** on which they are interested in working. Applicants must carefully familiarise themselves with the relevant descriptions of research themes; the choice of research-theme preferences should be based on the applicant's research interests and enthusiasm, expertise and skills in the associated research fields, and on the research themes' relevance for and compatibility with their doctoral research. It is foreseen that up to 4 participants will be affiliated with each team of supervisors; these groups of participants may engage in teamwork and collaborative research discussions as agreed upon with their supervisors.

Young scientists will be in residence at the SA-YSSP hosting institution, the University of the Free State, Bloemfontein, South Africa for three months from 24 November 2013 to 22 February 2014. South African supervisors will be expected to be in residence for 3-4 weeks during that period, and IIASA supervisors for 1-2 weeks during that period. When not in residence, the supervisors will commit to being in regular contact with their SA-YSSP mentees and collaborators via email, phone, and weekly video conferencing. During the festive period (25 December 2013 – 1 January 2014), all necessary support will continue to be provided to the participating young scientists.

The NRF will cover the financial costs to be incurred by the SA-YSSP candidates as follows:

- (i) South African candidates: travel costs for one return trip to Bloemfontein, accommodation and meals for the duration of the SA-YSSP programme, inclusive of an honorarium to cover other living costs;
- (ii) SADC candidates: travel costs for one return trip to Bloemfontein, accommodation and meals for the duration of the SA-YSSP programme, inclusive of an honorarium to cover other living costs;
- (iii) IIASA member country candidates: accommodation and meals for the duration of the SA-YSSP programme, inclusive of an honorarium to cover other living costs. Travel costs to and from Bloemfontein must be covered by outside sources identified by the candidate. Some IIASA National Member Organizations (NMOs) will provide travel funds, and candidates will be apprised of those opportunities by IIASA.

Expectations to be met by SA-YSSP participants:

- (i) Commit to participate in the SA-YSSP for the entire period and carry out the research as agreed upon with the supervisor team.
- (ii) Preparatory activities in cooperation with the supervisor team; conduct preliminary correspondence and planning prior to arrival on 24 November.
- (iii) Commit to frequent contacts by email, phone, and video conferencing with the supervisor team throughout the SA-YSSP period.
- (iv) Commit to preparing a final research report on the SA-YSSP research, and making efforts with your supervisors towards the publication of research results obtained through the collaborative research during and after the SA-YSSP period in internationally recognised scientific journals.
- (v) Commit to participate in the evaluation of the SA-YSSP.

Application Procedure

Doctoral students wishing to participate in the SA-YSSP should submit an application to the NRF by completing the application form and including their CV.

Application forms for SA-YSSP applicants may be downloaded electronically from the NRF website (<http://www.nrf.ac.za/>). A compulsory soft copy and the signature page (scanned) of the application must be submitted to:

Ms Puleng Tshitlho (Professional Officer)
Puleng.tshitlho@nrf.ac.za

No hard copies of the application can be accepted and will automatically be disqualified by the NRF. For South African applicants, only applications endorsed by the research office or its equivalent at higher-education or research institutions will be accepted.

Useful Links

<http://www.dst.gov.za/>
<http://www.nrf.ac.za/>
<http://iiasa.ac.at>
<http://www.iiasa.ac.at/web/home/research/researchPrograms/Research-Programs.en.html>
<http://www.iiasa.ac.at/web/home/education/sayssp/About-the-Program.en.html>
www.ufs.ac.za/sa-yssp

The **closing date** for complete submissions is **Monday, 16 September 2013**

For further information, please contact:

Ms Puleng Tshitlho
Professional Officer
National Research Foundation
Tel: +27 (0)12 481 4061
E-mail: Puleng.tshitlho@nrf.ac.za

Mr Siyabonga Kohli
Overseas Collaboration
National Research Foundation
Tel: +27 (0)12 481 4356
E-mail: skohli@nrf.ac.za