



science
& technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



International Institute for
Applied Systems Analysis



National
Research
Foundation

2017 Call for Doctoral Scholarships for Research using a Systems Analysis Methodology

Southern African
Systems Analysis Centre (SASAC)

Online applications open: 15 September 2016

Closing date: 14 October 2016

Background

The [Department of Science and Technology \(DST\)](#) and the [National Research Foundation \(NRF\)](#) have taken a strategic decision to continue investing in and expanding activities around systems analysis over the coming decade in the context of the pivotal role that this type of research plays in solving global challenges and contributing to development. In collaboration with the [International Institute for Applied Systems Analysis \(IIASA\)](#), the NRF is pleased to announce the second call for a three-year Doctoral bursary in any field, but with a [Systems Analysis](#) methodology and approach being applied to the research topic.

South Africa, through the NRF, became a member of the [International Institute for Applied Systems Analysis \(IIASA\)](#) in 2007. A range of research and capacity building activities have been developed by South African research partners and IIASA. The Southern African Systems Analysis Centre (SASAC) was officially launched by the Minister of Science and Technology, the Honourable Naledi Pandor, in May 2016. The SASAC initiative follows on the Southern African Young Scientists Summer Programme (SA-YSSP) that was launched in November 2011. SASAC is a multi-year initiative coordinated by the [University of the Western Cape](#), in partnership with the Universities' of [Limpopo](#) and the [Witwatersrand](#), and [Stellenbosch University](#). This initiative takes cognisance of additional and multi-level systems analysis capacity interventions, and a comprehensive approach to policy related activities in South- and Southern Africa. SASAC has dedicated three-year bursaries for South African and African PhD students based at a South African university to complete their studies with a supervisor from South Africa experienced in systems analysis, possibly in collaboration with a co-supervisor associated with IIASA.

SASAC PhD Programme Objective

The aim of the SASAC PhD programme is to provide an opportunity for excellent young doctoral students to advance their research under the direct supervision of senior scientists from South African research institutions and IIASA, 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 SASAC PhD curriculum will provide young and emerging researchers with the following benefits:

- A three-year bursary for 15 South African citizens and 5 African PhD students based at South African universities.
- A two-month capacity development intervention during the early stage of their PhD studies.
- Supervision by experienced South African/African and IIASA scientists/Alumni, 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 engagements with national and international experts participating in the programme and seminar series.
- Exposure to local, national, regional and international research programmes.
- Opportunities to build long-lasting collaborative contacts with the senior supervisors and with other programme participants.

In addition, scientific seminars will be offered 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, cultural excursions, and may involve networking with national research programmes.

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, namely 1) energy and climate change; 2) food and water; and 3) poverty and equity. Its three cross-cutting research areas are 1) drivers of global transformations; 2) advanced systems analysis; and 3) policy and governance.

The following are IIASA's current [Research Programmes](#):

- Advanced Systems Analysis
- Ecosystems Services and Management
- Energy
- Evolution and Ecology
- Mitigation of Air Pollution and Greenhouse Gases
- Risk, Policy and Vulnerability
- Transitions to New Technologies
- World Population
- Water.

South Africa's engagements with IIASA and specifically with regard to SASAC 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 SASAC:

- Farmer to Pharma
- Space Science
- Global Change
- Energy
- Human and Social Dynamics.

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

Applying to the SASAC Programme

This Call for Doctoral Bursaries is aimed at NEW doctoral students from South Africa and Africa who plan to pursue Doctoral studies at any public university in South Africa in 2017. The call allows for applicants to register at any university in South Africa, in collaboration with their supervisor. The eligibility criteria for these bursaries are as follows:

- Supervisors must submit applications on behalf of and in consultation with their students;
- A supervisor can apply for a maximum of 2 students in this programme/call;
- The PhD proposal must clearly be aligned to IIASA's research programmes and DST's research priority areas;
- Students must be eligible to be admitted for PhD-level studies, for commencement in January 2017;
- Proof of registration for a PhD programme should be provided by 20 February 2017 for NEW students;
- Currently registered PhD students who will be in the first six months of a PhD programme by January 2017, will be considered;
- Only students registered or intending to register on a full-time basis will be considered for selection;
- The students must have the ability to work independently and to interact with other scientists;
- The supervisor and students must have the willingness to participate in a range of interdisciplinary scientific activities including: (i) for students: participate in the 2-week inception meeting to be held in January and in the 5-week programme to be held in the first half of 2017; (ii) for supervisors: participation (for at least 3 days) in the January 2017 inception meeting and another 5 days during the last phase of the capacity development programme in June/July 2017.
- The PhD students must be committed to completing their PhD. They must also submit a manuscript to an international scientific journal within the period of support of the bursaries;
- Priority will be given to candidates from previously disadvantaged backgrounds;
- 20 bursaries of R110 000 per year for three years will be awarded. Universities can supplement these bursaries through own funds, within the applicable framework.



Application Procedure

- Supervisors should submit applications through an online application process to the NRF: **SASAC Call for PhD Bursaries 2017** <https://nrfs submission.nrf.ac.za/>
- Register/Login using your ID number/Passport number and password
- Select create new application from the list of existing calls
- Select the call for which you are applying for: **SASAC Call for PhD Bursaries 2017**
- Complete all sections of the application
- Please attach the necessary documents in **PDF format**:
 - **South Africans**: Copy of ID document or proof of permanent residence (if applicable) and certified academic transcripts
 - **African students**: Copy of passport and certified academic transcripts
- Should you not follow the guidelines for attaching the necessary supporting documents, your application may not be considered
- Remember to **submit** your application on completion
- Incomplete applications will not be considered.

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

When is the closing date for applications?

Applications must be submitted by **14 October 2016**. Applications received after this date will not be considered for funding.

Where can I obtain more information?

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