



Africa Regional Scholarship and Innovation Fund (RSIF) for Applied Sciences, Engineering and Technology

# Call for Applications for Universities in Sub-Saharan Africa to host PhD Scholarships, Research and Innovation in Applied Sciences, Engineering and Technology

Opening date: 8th November 2018

Closing date: 17:00 hours East Africa Time, 17th January 2019

#### **Summary**

Thematic areas: (1) ICTs including big data and artificial intelligence, (2) Food Security and agribusiness, (3) Minerals, mining and materials engineering, (4) Energy including renewables, and (5) Climate change.

Eligible applicants: Universities in sub-Saharan Africa (except South Africa) that offer PhD degrees in the priority thematic areas.

Expected number of Host Universities to be selected: 4 to 6

Final selection of Host Universities: 15th March 2019

# 1. Background

The Partnership for skills in Applied Sciences, Engineering and Technology (PASET), is an initiative by African governments to address fundamental gaps in skills and knowledge necessary for long-term, sustained economic growth in sub-Saharan Africa (SSA). PASET was launched in 2013 by the governments of Senegal, Ethiopia and Rwanda, while the governments of Kenya and Ivory Coast have since joined the partnership. PASET established a Regional Scholarship and Innovation Fund (RSIF) to contribute towards the training of a critical mass of PhD and post-doctoral candidates, and support research and innovation in the following priority thematic areas: ICTs including big data and artificial intelligence; food security and agribusiness; minerals, mining and materials engineering; energy including renewables; and climate change. RSIF focuses on transformative technologies that have a farreaching positive impact on society. It is currently funded partly by contributions from African governments, the World Bank and the Government of Korea; and implemented by the International Centre of Insect Physiology and Ecology (icipe) in Nairobi, Kenya, as the RSIF Regional Coordination Unit (RCU-icipe).

icipe is a non-profit organization that was established in 1970 and is headquartered in Nairobi, Kenya with country offices in Ethiopia, Uganda and Somalia. It has operations in 40 African countries and thriving partnerships with universities and research organizations, as well as regional and national media outlets across the world. icipe's partners in postgraduate training are international, and since 1983 have included 43 universities in 18 African countries and 39 universities from 14 other countries around the globe.

#### 2. Objective

The objective of RSIF is to train high quality PhD and post-doctoral fellows to address the human resource gap of highly qualified specialists in the fields of applied sciences, engineering, and technology (ASET) and contribute to improving research and innovation capacities in those fields in SSA. RSIF supports PhD students, post-doctoral scientists and universities in SSA to establish a high-quality training, research and innovation environment and to develop their institutional capacity for the benefit of the whole region.

## 3. Design of RSIF

RSIF is a PhD training, research and innovation initiative, which is innovatively designed to ensure long-term sustainability of funding, and to enable countries to build functional innovation ecosystems for sustainable economic growth and development.

#### RSIF has two components:

- A. A General Fund, which supports PhD training, research and innovation projects annually. The General Fund supports students and universities in SSA to establish high-quality instruction and research environment and to develop institutional capacity through the following three windows:
  - i. <u>Window 1: Scholarships for PhD training</u>: The scholarships finance 3 to 4-year PhD training programmes for citizens of SSA countries at competitively selected Host Universities in Africa. Awards include 'sandwich' training that allows students to complete part of their PhD programme at selected international partner institutions or companies. Scholars are chosen competitively with priority given to promising young African faculty without PhDs, and females
  - ii. <u>Window 2: Grants for research</u>: Grants are awarded competitively to faculty engaged in PhD training in Host Universities in SSA and to RSIF graduates who obtain a post-doctoral or permanent position in an academic institution or research centre in SSA.
  - iii. Window 3: Innovation grants: Innovation grants are awarded competitively to RSIF scholars and faculty who submit joint innovation project proposals with private companies. Innovation grants enable faculty and researchers to collaborate with industry and translate outputs of their research into practical uses either through existing companies or by starting up new enterprises.
- B. A Permanent or Endowment Fund with proceeds channeled into the General Fund. A Fund Manager professionally and independently manages this Fund.

#### 4. Funding

The initial funding for RSIF was provided by the governments of Kenya (USD 2 million) and Rwanda (USD 2 million), followed by a six-year USD 15 million grant from the International Development Association (IDA), which is towards the design and administration costs of RSIF scholarships, research and innovation grants. The Government of South Korea is providing a USD 9 million grant that will support PhD scholarships and research grants. The governments of Cote d'Ivoire, Ethiopia and Senegal have pledged financial contributions.

#### 5. Beneficiaries of RSIF

The main beneficiaries of RSIF include:

- a. Existing young academic faculty of African universities and other young Africans who will receive PhD scholarships;
- b. Young African scientists and engineers who are entering academia, industry or business;
- c. African institutions that train PhD students and become internationally recognized in applied sciences, engineering and technology fields;
- d. Faculty and students of the African institutions hosting or hiring RSIF scholars who benefit from the improved quality and capacity of the institutions;
- e. Industries that can employ better graduates, increase innovation capacity and use transformative technologies;
- f. Society, which will benefit from the use of transformative technologies.

## 6. RSIF expected results by 2024

The following results are expected by 2024 with the current level of funding:

- a. The RSIF to grow to at least USD 65 million;
- b. A minimum of 10 networks between SSA Host Universities and international partners for PhD training and research collaboration implemented;
- c. At least 120 students/staff to take cross-cutting courses, entrepreneurship or research commercialization courses supported;
- d. At least 96 PhD scholars (36 female) supported;
- e. A minimum of 35 research papers submitted by staff members or scholars sponsored by the project for publication in internationally indexed journals (10 female authors or co-authors);
- f. At least five pipeline innovative products and transformative technologies through links with the private sector developed.

#### 7. RSIF Host Universities

The RSIF Host Universities are universities or research institutes/centres based in SSA that offer a PhD program in any one of the priority ASET thematic areas of ICTs including big data and artificial intelligence, food security and agribusiness, minerals, mining and materials engineering, energy including renewables, and climate change. They host the PhD scholars, and also receive research grants and grants for innovation projects in the selected thematic area. Host Universities are selected competitively by an independent international panel of experts, and endorsed by the PASET/RSIF Governing Bodies. The first cohort of RSIF Host Universities comprise: African University of Science and Technology, Nigeria; Sokoine University of Agriculture, Tanzania; University of Gaston Berger, Senegal; and the University Felix Houphouet-Boigny, Cote d'Ivoire.

#### 8. Benefits of becoming a Host University

Host Universities have the opportunity to train PhD students that are supported by RSIF scholarships, and can benefit through the research grant and innovation grant windows of the RSIF. Host Universities also gain access to institutional capacity building opportunities for graduate program management, research management, ICT, curriculum design, faculty training, and innovation hub development. Hosts can also benefit from international collaboration and partnership opportunities with world-class institutions and universities outside the region to improve curricula, teaching and research methods, develop joint R&D and innovation projects, and arrange exchange visits. Through the RSIF, Host Universities gain world-wide recognition as premier institutions for PhD programs in any one of the ASET priority thematic area, as a result of having been selected through a highly competitive process.

## 9. Eligibility

Universities or research institutes/centres in sub-Saharan Africa (except South Africa¹) with at least one PhD degree program in any of the ASET priority thematic areas of ICTs including big data and artificial intelligence; food security and agribusiness; minerals, mining and materials engineering; energy including renewables; and climate change.

## 10. How to apply

10.1 Use the RSIF Host University Application Form provided at http://www.icipe.org/sites/default/files/english-rsif-host-university-application-form.docx

10.2 Complete the application and submit together with the required supporting documents (see below) via the online system at http://cbid.icipe.org/apps/cbid/forms/rsif\_application.php

The online system will accept the following file types doc, docx, pdf, rtf, zip, rar, jpg, jpeg, png, bmp, tif. The maximum file size accepted for any single file is 5 MB.

## **Required Supporting Documents**

Signed letter of support for the proposed PhD program from the President or Vice Chancellor indicating how becoming a PASET-RSIF Host University would be strategically aligned with the vision and goals of the University.

Signed letter of support from the Head of Department at the University where the PhD Program is located

Curriculum vitae of Head of Department where PhD Program is located

Curriculum vitae of Lead Applicant (Contact Person for RSIF Host University)

Curriculum vitae of Key academic university staff involved in the proposed PhD Program (please combine CVs of key academic staff into one document)

Completed 'PASET-RSIF African Host University PhD Fees and Costs' spreadsheet

http://www.icipe.org/sites/default/files/english-rsif-host-university-phd-fees-and-costs.xlsx

University PhD student information handbook

University PhD fee structure

The deadline for receiving applications is Thursday, 17<sup>th</sup> January 2019, no later than 17:00 hours East Africa Time. Access to the online submission platform will be closed after the deadline.

Note: A university may make up to 5 separate applications, each in any one of the priority ASET thematic areas. However, a university will only qualify to be selected for one priority thematic area. Each application will be judged independently.

#### 10.3 Conditions for application

By submitting the application, the applicant agrees to the following:

- a. Comply with all rules for participating in this call
- b. RCU-*icipe* reserves the right to reject applications that fail to meet the eligibility and selection requirements.
- c. All decisions made by RCU-icipe with approval by the PASET Executive Board (EB) are final.

<sup>&</sup>lt;sup>1</sup> Universities in South Africa are eligible to participate in RSIF as Partner Organizations. The latter are expected to contribute towards the strengthening of Host Universities.

#### 11. Selection criteria

The selection of Host Universities will be based on merit, and considers the potential of the university to grow and become a centre of excellence in the ASET priority thematic areas.

Applications for Host Universities will be evaluated based on the following key criteria (see Annex 1 for detailed criteria and scores):

- a. Educational and research capacity (40 marks)
- b. Institutional capacity (20 marks)
- c. Proposed PhD program impact (20 marks)
- d. National, regional and international partnerships (10 marks)
- e. Potential to raise the quality and relevance of the proposed PhD program, research and innovation (10 marks)

## 12. Selection process

#### Step 1. Screening and evaluation at RSIF RCU

The RCU receives the applications and screens them for eligibility and completeness. Applications that pass the eligibility screening and completeness check are sent to an Independent Evaluation Committee (IEC) of 5 to 7 experts, appointed by the RCU.

## Step 3. Evaluation by the IEC

Applications are evaluated by the IEC, ranked and shortlisted for interview. Shortlisted universities are invited for a virtual interview by the IEC. Interviews will be conducted in either French or English, depending on the university's language preference.

#### Step 3. Site visits

After the interviews, the IEC will discuss and recommend qualifying Host Universities to the RCU-*icipe*. The IEC and RCU-*icipe* will visit the recommended Host Universities. The IEC's final recommendations, incorporating the outcome of the site visits will be shared with the PASET Executive Board (EB) for their endorsement.

## Step 4. Negotiations and signing MoUs and contracts

After the PASET EB endorsement, the selected Host Universities will be announced on the RSIF website. The selected Host Universities will be invited to negotiate hosting arrangements with RCU-icipe. icipe as the RCU will then sign memoranda of understanding and hosting agreements with the selected Host Universities based on the outcome of the negotiations. Unsuccessful universities will also be notified by email.

# 13. Important dates

Please, take note of the important dates:

	Activity	Timeline
1	Call for Applications open	8 <sup>th</sup> November 2018
2	Deadline for application submission	17 <sup>th</sup> January 2019
3	Screening and completeness check by the RCU	24 <sup>th</sup> January 2019
4	Review and evaluation of applications by IEC	8 <sup>th</sup> February 2019

5	Site visit to shortlisted Host Universities	8 <sup>th</sup> March 2019
6	Final selection of Host Universities	15 <sup>th</sup> March 2019
7	Negotiations and signing MoUs and hosting agreements	22 <sup>nd</sup> March 2019

### Contact information and Support

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# *Informational Webinars*

Informational webinars in French and English will be held to address questions and assist potential applicants. If you are interested in attending a webinar, please contact <a href="mailto:rsif@icipe.org">rsif@icipe.org</a> for dates and login information.

An audio and video recording of the Webinars will be made available.

# Frequently Asked Questions (FAQ)

A document with FAQs is available at <a href="https://www.icipe.org/sites/default/files/english-faq.docx">www.icipe.org/sites/default/files/english-faq.docx</a>

#### Annex 1. Evaluation Criteria

CRITERIA		MARKS
A. E	EDUCATION AND RESEARCH CAPACITY	
1	Experience and qualification of proposed PhD program faculty and staff	20
2	Research experience in the area of the proposed PhD program	10
3	Resources available to the researchers, including access to research facilities; library and journals (including e-journals), ICT support.	10
	SUB TOTAL	40
B. II	NSTITUTIONAL CAPACITY	
4	Efficient application, selection and admission processes for PhD students	10
5	Administrative and other support systems in place for hosting PhD students, including female and international students	5
6	Evidence of a functional financial and reporting systems for the PhD program.	5
	SUB TOTAL	20
C. P	PROPOSED PHD PROGRAM IMPACT	
7	Contribution of the proposed PhD program to science and society	20
	SUB TOTAL	20
D. N	NATIONAL, REGIONAL AND INTERNATIONAL PARTNERSHIP	
8	Existing partnerships that will benefit the proposed PhD program	5
9	Potential to form new partnerships with national and international organizations	5
	SUB TOTAL	10
	POTENTIAL TO RAISE THE QUALITY AND RELEVANCE OF THE PROPOSED PHD PROGRAM, D INNOVATION	RESEARCH
10	Potential of the PhD program to grow and become more relevant for development in Africa	10
	SUB TOTAL	10
	OVERALL TOTAL	100