Partnership for skills in Applied Sciences, Engineering and Technology (PASET) - Regional Scholarship and Innovation Fund (RSIF)

Call for Applications from Universities and Africa Centers of Excellence in sub-Saharan Africa to become PASET-RSIF African Host Universities in Applied Sciences, Engineering and Technology

Opening date: 25th September, 2020
Closing date: 23rd November 2020 at 17:00 hours East Africa Time

Summary

- Eligible institutions: Invited World Bank-financed Africa Centers of Excellence are eligible to make one application in their relevant area. Existing RSIF African Host Universities (AHUs) are eligible to make one application in each of the eligible thematic areas, except the area for which they were previously selected.
- Applications must focus on a PhD program at the university/center in one of the following thematic areas: (1) ICTs including big data and artificial intelligence; (2) Food Security and agribusiness; (3) Energy including renewables; and (4) Climate change.
- Expected number of PhD programs to be selected: 4
- Announcement of final selection: February-March 2021

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. 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 far-reaching positive impact on society. It is currently funded 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 researchers 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 sub-Saharan Africa.
RSIF supports competitively selected universities in sub-Saharan Africa (‘RSIF-African Host Universities’) to establish a high-quality training, research and innovation environments 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, designed to ensure the long-term sustainability of funding and to enable countries in Africa to build functional research and 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 sub-Saharan Africa to establish high-quality instruction and research environment and to develop institutional capacity through the following three windows:
   i. **Window 1: Scholarships for PhD training:** The scholarships finance 3 to 4-year PhD training programmes for citizens of sub-Saharan African countries at competitively selected African Host Universities. 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. **Window 2: Research Grants:** Grants are awarded competitively to faculty engaged in PhD training in African Host Universities and to RSIF graduates who obtain a post-doctoral or permanent position in an academic institution or research center in sub-Saharan Africa.
   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 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 has provided a USD 9 million grant to support PhD scholarships and research grants. Côte d’Ivoire, Burkina Faso, Ghana and Senegal are providing USD 2 million each to RSIF. Several other countries, including Benin, Nigeria and Mozambique are in the process of joining PASET.

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 African Host Universities

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1 First installment of USD 1 million was received in 2019.
RSIF African Host Universities are universities or research institutes/centres (e.g. Africa Centers of Excellence) in sub-Saharan Africa that offer a strong PhD program in one of the priority thematic areas. RSIF African Host Universities are selected competitively by an independent, international panel of experts and endorsed by the PASET Executive Board.

Current RSIF African Host Universities/Africa Centers of Excellence:

- African University of Science and Technology, Nigeria (Africa Centre of Excellence: Pan-African Materials Institute (PAMI))
- Bayero University, Nigeria (Africa Centre of Excellence in Dryland Agriculture (CDA))
- Kenyatta University, Kenya
- Nelson Mandela Institute of Science and Technology, Tanzania (Africa Centre of Excellence: Water Infrastructure and Sustainable Energy Futures (WISE – Futures))
- Sokoine University of Agriculture, Tanzania (Africa Centre of Excellence for Infectious Diseases of Humans & Animals in Southern & Eastern Africa (SACIDS))
- University Felix Houphouet-Boigny, Cote d’Ivoire (Africa Center of Excellence for Climate Change Biodiversity and Sustainable Agriculture (CCBAD))
- University of Gaston Berger, Sénégal Africa Centre of Excellence for Mathematics, Informatics and ICT (MITIC)
- University of Ghana, Legon, Ghana
- University of Nairobi, Kenya
- University of Port Harcourt, Nigeria (Africa Centre of Excellence in Oilfield Chemicals Research (ACE-CEFOR))
- University of Rwanda, Rwanda (Africa Centre of Excellence in Internet of Things (ACEIoT))

7. Benefits of becoming an African Host University

African Host Universities have the opportunity to train PhD students that are supported by RSIF scholarships and can benefit through the research and innovation grant windows of RSIF. African Host Universities also gain access to institutional capacity building opportunities for student and faculty training, graduate program management, research management, ICT, innovation hub development and library strengthening. Host Universities can also benefit from international collaboration 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, African Host Universities gain world-wide recognition as premier institutions for PhD programs in an ASET priority thematic area.

8. Eligibility

8.1 Eligible institutions. Invited World Bank-financed Africa Centers of Excellence are eligible to make one application in their relevant area. Existing AHUs are eligible to make one application in each of the eligible thematic areas except the area for which they were previously selected.

8.2 Eligible priority thematic areas. Applications must focus on one of four priority thematic areas. Please note that this call is restricted to the following four thematic areas:

i. **ICTs including big data and artificial intelligence**: This involves the use of information and communication technologies in a wide range of economic sectors, including big data analytics and artificial intelligence systems, computer programming, software development and their applications in manufacturing and service delivery.

ii. **Food Security and agribusiness**: This includes sustainable food production systems, pest and disease control strategies, management of post-harvest losses of crops and new opportunities for agribusiness development. Other areas include new ways to improve soil fertility, conserve water for food and agricultural production, and enhancing nutrition for humans and livestock.

iii. **Energy including renewables**: This involves new forms of energy as well as more efficient ways of using energy. Developing renewable energy sources, e.g. biomass, wind, solar, and geothermal are highly encouraged.
iv. **Climate change**: This involves developing strategies for mitigating or adapting to climate change, including, for example, early warning systems for natural disasters and strategies for disaster management, modelling for climate change, and building climate-smart or resilient systems for urban and rural communities and disaster-prone populations in Africa.

8.3 The application must focus on a PhD program at the university/centre in one of the eligible priority thematic areas.

8.4 The PhD program must have operated successfully for at least 5 years and be considered strong in the thematic area relative to other universities in the region.

9 **How to apply**

9.1 Complete the RSIF African Host University Application Form. Download the form here: [https://www.dropbox.com/s/pxqqjatnguji9s0/ENGLISH%20%26%20FRENCH-AHU%20Application-form_3rd%20Call_2020-FINAL.docx?dl=0](https://www.dropbox.com/s/pxqqjatnguji9s0/ENGLISH%20%26%20FRENCH-AHU%20Application-form_3rd%20Call_2020-FINAL.docx?dl=0)

9.2 Submit the completed form together with the required supporting documents (see below) via the Online Application Platform at [https://app.rsif-paset.org/rcu/forms/host_university_application.php](https://app.rsif-paset.org/rcu/forms/host_university_application.php)

9.3 The online submission platform 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.

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<tr>
<th><strong>Required Supporting Documents</strong></th>
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<tr>
<td>i. A signed letter of support from the President or Vice-Chancellor. The letter should include (1) how becoming a PASET-RSIF African Host University would strategically align with the vision and goals of the University, and (2) confirmation that the proposed PhD program is accredited with the relevant authority for university education within the country.</td>
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<tr>
<td>ii. If applicable, a signed letter of support from the ACE Center Leader. The letter should also indicate how becoming a PASET-RSIF African Host University would strategically align with the vision and goals of the ACE.</td>
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<td>iii. A signed letter of support from the Head of Department of the University where the PhD Program is located. The letter should describe how participating in the RSIF would benefit the PhD program, research and innovation at the university.</td>
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<td>iv. If applicable, curriculum vitae of ACE Center Leader</td>
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<td>v. Curriculum vitae of Head of Department where PhD Program is located</td>
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<td>vi. Curriculum vitae of Lead Applicant</td>
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<td>vii. Curriculum vitae of key academic university staff involved in the proposed PhD Program (please combine CVs of key academic staff into one document).</td>
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<td>ix. University PhD student information handbook</td>
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<td>x. University PhD fee structure</td>
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9.4 The deadline for receiving applications is 23rd November 2020 at 17:00 hours East Africa Time. Access to the Online Application Platform will be closed after the deadline. Please note that once submitted, no changes can be made to the application.

9.5 **Conditions for application**

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

i. Comply with all rules for participating in this call

ii. RCU-icipe reserves the right to reject applications that fail to meet the eligibility and selection requirements.

iii. All decisions made by the PASET Executive Board (EB) are final.

10. **Selection criteria and process**

All applications will be judged independently. The selection of African Host Universities will follow a rigorous merit-based, transparent, objective evaluation exercise, and will consider the potential of the university to meet the demand for skills in applied sciences, engineering and technology skills and innovation in
transformative technologies in sub-Saharan Africa and be able to produce impact on the lives of people in Africa. Applications will be evaluated on the key criteria (see Annex 1 for details). See Annex 2 for further details of the selection process.

11. Further information
Information Webinar, 14th October 2020, 3.00-4.30 pm East Africa Time
An information webinar in English and French will be held to address questions and assist potential applicants. If you are interested in attending the webinar, please submit your name, institution and email address here: https://forms.gle/MW6a2reACBxkYmrS7. Log-in information will be sent to you near the date of the webinar.

Contact information and Support
The Manager (rsif@icipe.org)
Regional Coordination Unit (RCU)
International Centre of Insect Physiology and Ecology (icipe)
P.O. Box 30772-00100, Nairobi, Kenya
Telephone: +254 (20) 863200

Annex 1
Evaluation criteria and scoring of applications

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<th>Criterion</th>
<th>Score</th>
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<tr>
<td><strong>Section A: Education and Research Capacity</strong></td>
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<tr>
<td>Experience and qualifications of proposed PhD program faculty and staff</td>
<td>40 marks</td>
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<tr>
<td>Quality and vision of the proposed PhD program</td>
<td></td>
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<tr>
<td>Resources available to the research staff and students, including labs, funding, access to journals, ICT etc.</td>
<td></td>
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<tr>
<td><strong>Section B: Institutional Capacity</strong></td>
<td></td>
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<tr>
<td>Efficient application, selection and admission processes for PhD students</td>
<td>15 marks</td>
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<td>Administrative and other support systems in place for hosting PhD students</td>
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<td>Evidence of functional financial, monitoring and reporting systems for the PhD program</td>
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<tr>
<td><strong>Section C: National, regional and international partnerships</strong></td>
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<tr>
<td>Existing partnerships that benefit the PhD program</td>
<td>15 marks</td>
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<tr>
<td>Potential to form new partnerships</td>
<td></td>
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<tr>
<td><strong>Proposed program impact</strong></td>
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<td>Potential to raise the quality and relevance of the proposed PhD program</td>
<td>15 marks</td>
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Annex 2
Selection process

<p>| Step 1. Screening and evaluation by RCU-icipe | The RCU-icipe receives the applications and screens for eligibility and completeness. |
| Step 2. Evaluation independent expert reviewers | Remote desk review by a panel of thematic area experts |
| Step 3. Evaluation by the Independent Evaluation Committee (IEC) | A virtual meeting of the IEC will shortlist applications for online or in-country validation. |</p>
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<th>Step 4. Validation exercise</th>
<th>Thematic area experts will conduct online or on-site validation of shortlisted applications. The validation exercise focuses on capacity (staff, research laboratories, leadership, vision, PhD program, students, management), partnerships and vision.</th>
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<td>Step 5. Virtual meeting of the IEC and EB Recommendations</td>
<td>RCU-icipe will facilitate a virtual meeting of the IEC to consider the outcome of the online or on-site evaluation and provide final recommendations to the PASET Executive Board (EB) who will make the final selection.</td>
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<td>Step 6. Negotiations and signing MoUs and contracts</td>
<td>The selected African Host Universities will be invited to negotiate partnership arrangements with RCU-icipe. icipe will then sign memoranda of understanding and hosting agreements with the selected African Host Universities based on the outcome of the negotiations. Unsuccessful applicants will be notified by email.</td>
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