



PASET-RSIF PhD Scholarships in Applied Sciences, Engineering and Technology

NOW OPEN

Deadline for submission: 22nd JULY 2019 at 5:00pm (GMT)

Summary

- Study at one of ten RSIF African Host Universities in the following 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: Nationals of any country in sub-Saharan Africa who do not have a PhD degree. Preference will be given to university academic staff who do not have a PhD. Women are especially encouraged to apply.
- Scholarship period: 3 to 4 years
- Participate in a “sandwich program” and undertake a portion of your studies at a premier international institution/university
- Total number of scholarships available: 45
- Applicants will only need to submit **ONE** application for the university you wish to apply using the RSIF centralized application
- Final selection and publication of the award decisions: September 2019.

1.0 Background

The [Partnership for skills in Applied Sciences, Engineering and Technology \(PASET\)](#) is an African-led initiative with the objective of strengthening science, technology and engineering capability in sub-Saharan Africa (SSA) to further its socio-economic transformation. 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 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 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 \(icipe\)](#), Nairobi, Kenya, as the RSIF Regional Coordinating 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.

2.0 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.

3.0 Target beneficiaries and eligibility

The target beneficiaries are nationals of any country in sub-Saharan Africa who do not have a PhD degree, and who are not currently enrolled in any PhD program. However, preference will be given to young faculty who do not have a PhD, and women. Interested applicants must have a Master's degree in a relevant field and must be willing to enroll into a full-time PhD program.

Applicants who are eligible for the RSIF scholarship will be considered by the RSIF African Host University of their choice.

4.0 Priority ASET thematic areas

PhD scholarships will only be awarded to applicants wishing to conduct PhD research in one of the following priority ASET Thematic Areas:

4.1 ICTs including big data and artificial intelligence

This involves 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.

List of RSIF African Host Universities accepting applications in the ICT Thematic Area:

RSIF African Host University	PhD Program	Location	Link to University PhD Program
University of Gaston Berger, Africa Centre of Excellence for Mathematics, Computer Science, and ICT (MITIC)	Computer Science	St. Louis, Senegal	http://www.ceamitic.sn/en/p/hd-in-computer-science/
University of Rwanda Africa Center of Excellence in Internet of Things (ACEIoT)	Internet of Things: Embedded Computing Systems (PhD in IoT: ECS)	Kigali, Rwanda	https://aceiot.ur.ac.rw/?q=content/phd-studies

4.2 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.

List of RSIF African Host Universities accepting applications in the Food Security Thematic Area:

RSIF African Host University	PhD Program	Location	Link to University PhD Program
Sokoine University of Agriculture Africa Center of Excellence for Infectious Diseases of Humans & Animals in Southern & Eastern Africa (SACIDS)	Health (Molecular Biology)	Morogoro, Tanzania	http://www.sacids.org/
University of Ghana	Applied Agricultural Economics and Policy/Agribusiness	Accra, Ghana	https://www.ug.edu.gh/aea/

4.3 Minerals, Mining and Materials Engineering

This includes mineral processing and beneficiation, mining and materials engineering. Other important areas include new materials for construction, transportation, consumer goods, health care delivery and production equipment. Work involving nanomaterials and exploring novel biomaterials and related climate-smart materials would be of much interest as well.

List of RSIF African Host Universities accepting applications in the Minerals, Mining and Materials Engineering Thematic Area:

RSIF African Host University	PhD Program	Location	Link to University PhD Program
Nelson Mandela African Institution of Science and Technology (NM-AIST)	Materials Science and Engineering (MaSE)	Arusha, Tanzania	https://www.nm-aist.ac.tz/index.php/mewes
Kenyatta University	Materials Science	Nairobi, Kenya	http://spas.ku.ac.ke/index.php/departments/department-of-physics

4.4 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.

List of RSIF African Host Universities accepting applications in the Energy Thematic Area:

RSIF African Host University	PhD Program	Location	Link to University PhD Program
University of Port Harcourt	Petroleum and Gas Engineering / Energy Economics	Port Harcourt, Nigeria	https://aceceforuniport.edu.ng/
University of Nairobi	Physics	Nairobi, Kenya	https://physics.uonbi.ac.ke/

4.5. 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.

List of RSIF African Host Universities accepting applications in the Climate Change Thematic Area:

RSIF African Host University	PhD Program	Location	Link to University PhD Program
University Felix Houphouet-Boigny The Africa Center of Excellence for Climate Change, Biodiversity and Agriculture (CEA-CCBAD)	Biodiversity and Sustainable Agriculture	Abidjan, Côte d'Ivoire	http://univ-fhb.edu.ci/
Bayero University Africa Centre of Excellence in Dryland Agriculture (CDA)	Natural Resources Management and Climate Change	Kano, Nigeria	http://www.cda-buk.edu.ng/

5.0 Scholarship amount and duration

The scholarship covers tuition, a monthly living allowance (which also covers a return airfare from/to home country, health insurance and other living expenses), and supervisor research support. The duration of the PhD scholarship is 3 to 4 years; of which 6-24 months will be spent on a sandwich program at a university, research institute or private company abroad.

6.0 PhD Scholarship Program

Successful candidates will be admitted to one of the ten RSIF African Host Universities in the priority thematic areas described above to which they applied. Candidates will spend first year attending an RSIF African Host University where they will be enrolled as full-time students. RSIF scholars will also spend 6-24 months at a regional or international partner university/institution (university, research organization or private company). Currently, there are seven Partner organizations, namely: Korea Institute of Science and Technology, South Korea; Institute of Green Bio Science and Technology (GBST), Seoul National University, Korea; Korea Institute of Energy Research (KIER), Korea; Korea Research Institute of Chemical Tech (KRICT); Korea Research Institute of Bioscience and Biotech (KRIBB), Korea and Maastricht University, The Netherlands. At least four to six additional Partner Organizations will be identified in 2019/2020.

7.0 How to Apply

Opening date for applications: **June 12, 2019**

- 7.1.1 Download the application form specific for the PhD program for which you wish to apply
- 7.1.2 Follow instructions in the application form for the RSIF African Host University and PhD Program

7.2 Please use the Scholarship Application Form that is specific for your selected RSIF African Host University and PhD Program. See specific links [here](#):

7.3 Requirements

- Completed application form for the RSIF African Host University and PhD Program you are applying
- Electronic copies of the following supporting documents are required:
 - Curriculum vitae
 - Certified copies of Bachelor's and Master's degree certificates. Please combine into one file. If necessary, you may zip the file to make it smaller for uploading.
 - Certified copies of university transcripts for Bachelor's and Master's degrees. Please combine into one file. If necessary, you may zip the file to make it smaller for uploading.
 - Signed, official recommendation letter from your employer (if currently employed) or University where MSc was undertaken. The letter must be on official letterhead.
 - If applicable, an official letter confirming that you will be granted study leave from your place of employment. The letter must be on official letterhead.
 - Additional documents may be required by the Host University. See, application form for more details on the specific eligibility criteria and application requirements.

7.4 **Submit your scholarship application form and supporting documents through the Online Scholarship Application System.** Only applications and supporting documents submitted online will be accepted. Applications by email will not be accepted. You are required to only submit one application per program and DO NOT have to apply directly to the RSIF African Host University at this stage.

7.5 Conditions for Application

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

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

8.0 Selection criteria

8.1 General principle

The RSIF student selection process adheres to the principles of scientific excellence, accountability, and transparency. In this respect, the selection of candidates will be based on merit, and the potential of the candidate and his or her PhD to make significant scientific and technological contribution that positively impacts on the development of SSA countries.

8.2 Key Criteria

Applicants will be evaluated based on the following key criteria:

- a. Leadership potential: Demonstrated leadership potential in areas such as community service and outreach activities.
- b. Intellectual ability: Demonstrated through the applicant's academic track record, quality of the application, personal statement of motivation, and preferred PhD project idea. Additionally, applicant's creative thinking and innovative approach to problem solving will be considered.
- c. Research capability: Demonstrated through the applicant's research experience and quality of the application.
- d. Demonstrated commitment to pursue a PhD degree: Judged by the applicant's CV, personal statement of motivation in the application and interview.

Applicants will be assigned a score of 1 to 5 for each criterion, where, score of 1 = poor; 2 = fair; 3 = good; 4 = very good and 5 = excellent

9.0 Selection process

Step 1. Screening and evaluation at RCU-icipe

The RSIF Regional Coordination Unit (RCU) receives applications online and screens them for eligibility and completeness. Applications that pass the eligibility screening and completeness check are sent to the relevant universities.

Step 2. Host University Evaluation

The RSIF African Host University to which the candidate has applied will evaluate the applications using their own admission criteria. The university admissions unit will prepare a shortlist of qualifying candidates that meet the universities admissions requirements and send the list to the RCU-icipe. At this stage, the RSIF AHU will also provide a pre-admissions letter to shortlisted applicants.

Step 3. Independent Review and Evaluation

RCU-icipe will Appointment of independent reviewers for virtual review of RSIF PhD applications and remote independent evaluation of eligible/ pre-admitted candidates.

Step 4. Interviews and Final Selection

Shortlisted candidates will be invited for a virtual panel interview conducted by thematic area experts which will form an Independent Evaluation Committee (IEC). The RCU-icipe will facilitate virtual meeting of the IEC to discuss RSIF scholar applications and finalize the list for consideration for the RSIF scholarship. Secondary ranking of shortlisted applicants will be conducted by the AHU based on

university admissions criteria. The IEC's will then share final recommendations with the PASET Executive Board (EB) for their endorsement before formal processes of admissions are undertaken.

Step 5. Scholarship Announcement

After the PASET EB endorsement, the selected candidates for the scholarship will be announced on the RSIF website. The selected candidates will be officially notified by email of their award and will receive an award letter for their review and acceptance. Unsuccessful candidates will also be notified by email.

10.0 Further information

Contact information and Support:

Email: rsif@icipe.org

Regional Coordination Unit (RCU)

International Centre of Physiology and Ecology (*icipe*)

P.O. Box 30772-00100, Nairobi,

Kenya Telephone: +254 (20) 8632000

ANNEX 1

Summary of the PhD scholarship application form.

1. PHD PROJECT
 - Describe the research project that you would like to pursue for a PhD, and why this would be suitable for PhD-level research (you may include references). Please use this to illustrate your creative thinking and innovative approach to problem solving. Give reasons for wanting to pursue this research topic. Please note that the research topic must be in one of the Priority ASET Thematic Areas. (1000 words maximum, excluding references)
2. EDUCATIONAL BACKGROUND
 - List of all universities and colleges attended and qualifications obtained.
 - Give your MSc Thesis title and abstract.
3. RESEARCH EXPERIENCE (500 words)
 - Describe your research experience, and why it is relevant to the application.
4. CONFERENCES AND PUBLICATIONS
 - List of conferences, workshops or short-term research training attended in the last three years.
 - Scientific publications in peer-reviewed journals, book chapters published conference proceedings, or important research reports. Only list those that (i) are relevant to your application and (ii) were published within the last 5 years. Do not exceed 10 publications.
5. EMPLOYMENT HISTORY
 - Three most recent positions, employment or gainful engagements.
6. MEMBERSHIPS
 - List professional societies or other organizations in which you hold/held membership and state key roles if applicable. Do not exceed four memberships.
7. ACADEMIC AND PROFESSIONAL GOALS
 - Statement of Purpose (motivation for pursuing a PhD) (500 words maximum)
 - State the foreseen professional engagement after completing the PhD, and how you expect to apply the skills and knowledge acquired from a PhD degree (200 words maximum)
 - Professionally and academically, where do you see yourself in 5 and 10 years? (200 words maximum)
8. LEADERSHIP POTENTIAL
 - Demonstrated leadership potential, e.g. community service, outreach activities, supervision of undergraduate students, leadership of student bodies, etc. (200 words maximum)
9. REFEREES
 - Names and contact details for two referees who can provide information on your professional and academic qualifications and experience.