RSIF Sandwich Training

Orientation Training for RSIF Cohort III PhD Scholars June 28, 2021 Bonface Nyagah







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RSIF PhD Sandwich Program



- Includes 6 months to 2 years as a visiting scholar at an International Partner Institution to conduct a part of their PhD research (and receive training/take courses as necessary)
- PhD research must address African challenges but also be of strong interest to International Partner
- Joint supervision of the scholar: close partnership between the AHU and IPI supervisors

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International Partner Institutes, IPIs

IPIs are advanced universities, research institutes/centers or companies (public or private) that are willing and competent to offer research internship/sandwich opportunities for RSIF PhD Scholars from Africa studying at RSIF African Host Universities (AHUs). Advanced/international research centers and civil society partners and private sector firms in sub-Saharan Africa (SSA), and universities in South Africa, may also qualify as IPIs.

IPIs provide strategic research attachments to RSIF PhD scholars and provide them with financial and/or in-kind support for an agreed period from 6 to 24 months sandwiched between their initial and final doctoral studies at AHUs.

Faculty members of the IPIs jointly supervise PhD scholars from AHUs. IPIs can also join with the AHUs to apply for research and innovation projects. IPIs are also encouraged to support improvement of PhD curricula, provide training of AHU faculty in new curricula and engage in faculty exchange, and this would be a factor for consideration in their selection.

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Identification of prospective IPIs

Prospective IPIs are identified through:

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- a. Recommendations by key stakeholders, including the PASET Consultative Advisory Group (CAG), current IPIs and AHUs,
- existing international partners of AHUs, and World Bank.
- b. Scan by the RCU-icipe based on identified needs for student attachments.
- c. A survey of top Universities/Research Centers/Companies that are working as leaders in their fields with a strong culture of research to innovation to find solutions to problems similar to those being addressed by RSIF scholars.
- d. An open call if necessary.
- e. These are subject to a selection criteria and approval by RSIF management







Financial framework for a RSIF PhD Scholar on a sandwich program at an IPI

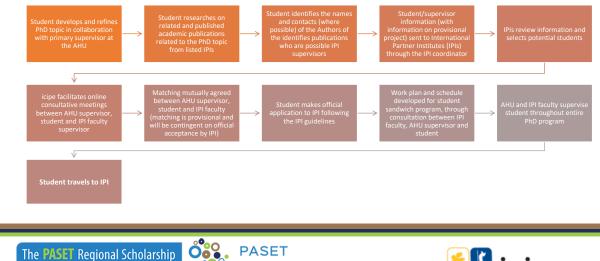
The RSIF PhD Scholarship covers the following costs:

- Return travel and visa
- Settling in allowance
- Living and accommodation expenses
- Medical insurance
- ii. Costs expected to be covered by the IPI
- Research undertaken at the IPI
- Fees and other university expenses.



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RSIF Scholar matching process



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Current International Partner Institutes, IPIs

Korea Institute of Science and Technology, KIST

KIST was established in 1966 with support from the Korean and U.S. governments as a multidisciplinary R&D institute to lay the foundation for Korean economic development. It has since become a pioneer in science and technology research. KIST also runs a Master's and doctoral degree program at its International R&D Academy to nurture scientific and technological talent from all over the world.

KIST and RSIF's collaboration is based on academic and scientific research cooperation, as well as capacity development. Areas of cooperation include training PhD and post-doctorate students; exchanging researchers and faculty; facilitating joint innovation projects in priority development areas; and promoting joint publications and research. In its current phase, KIST will offer sandwich PhD programs to RSIF scholars by hosting them for up to two years and co-supervising their research. It will also undertake collaborative R&D projects covering all thematic areas within the PASET framework, potentially necessitating partnerships with organizations in the private sector.

Current International Partner Institutes, IPIs

Korea Institute of Energy Research (KIER)

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Korea Institute of Energy Research (KIER) is a public sector research organization with a focus on energy technology research and development in the areas of energy efficiency, new and renewable energy, and climate change. KIER is particularly strong in Research, Design, and Development related to coal-fired technology.

Since its establishment in 1977, it has been growing steadily, it has recently shown rapid development as well as some remarkable results such as the highest records and technology transfers to companies. KIER is under the Korean Ministry of Science, ICT and Future Planning. Its partnership with PASET-RSIF promises strengthened Research, Design, and Development and transfer of knowledge in the fields of Energy Saving Technologies; new and renewable energy; and climate change.

https://eng.kist.re.kr/

https://www.kier.re.kr

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Current International Partner Institutes, IPIs

Korea Research Institute of Chemical Technology (KRICT)

Korea Research Institute of Chemical Technology (KRICT) is the national chemical research institute for the Republic of Korea and was established in 1976. The Company focuses on the chemical technologies industry. KRICT's divisions include Green Chemistry, Advanced Materials, Bio-Organic Science, Research Support, and Large Government-run projects. KRICT is a member of the National Research Council of Science & Technology.

The key research fields pursued by the institute are development of eco-friendly chemical process technology, development of high value-added green chemical materials, acquisition of new substance pipelines for disease treatment, and development of green convergence chemical technology to act as future growth engines. With a commitment to improve the chemical industry, KRICT has established the green management philosophy to undertake research in these areas.

The PASET-RSIF Ph.D. students will be participating in research and development projects that will contribute to the improvement of their national economies by further developing and exploiting technologies into new products, processes, applications, materials or services.

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Current International Partner Institutes, IPIs

Institutes of Green-bio Science Technology (GBST) of Seoul National University (SNU)

The Seoul National University Institutes of Green-bio Science & Technology is a place that presents direction of green bio-integrated research through on-site education and research. It contributes to development by maximizing growth potential among universities, research institutes and related companies as a cluster of academy, research, and industry cooperation in clean areas.

PASET-RSIF scholars stand to learn a lot about specialized research technology for the research fields of agriculture, food, environment, bio energy and medicine; from one of the world's leading research facilities leading the research of life sciences.

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https://greenbio.snu.ac.kr/









https://www.krict.re.kr

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Current International Partner Institutes, IPIs

Mohammed VI Polytechnic University (UM6P), Morocco

The Mohammed VI Polytechnic University is an institution oriented towards applied research and innovation. It intends to place itself among the universally recognized universities in these fields. Committed to economic and human development, UM6P puts research and innovation at the service of development on the African continent. This positioning allows it to consolidate Morocco's forward-looking position in these areas through the implementation of a unique partnership approach and the strengthening of the training offer in skills relevant to Africa's future.

The Mohammed VI Polytechnic University's main mission being to develop knowledge, science and technology, the UM6P aims to: (1) Ensure the development of skills and knowledge through comprehensive training focused on research, innovation and entrepreneurship. (2) Promote research and tackle the greatest scientific and technological challenges of the future, through living labs intended for real-scale practical applications.

Current International Partner Institutes, IPIs

Worcester Polytechnic Institute (WPI), USA

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WPI is a mid-size private college in Massachusetts. It was founded in 1865 to create and convey the latest science and engineering knowledge in ways that are most beneficial to society. Today, WPI holds firm to its founding mission to provide an education that balances theory with practice. It was recently ranked #1 in the nation for quality and accessibility of professors, highlighting the school's commitment to combining scholarly research with classroom instruction.

Graduate research programs include robotics, materials science, cybersecurity, and learning sciences and technology. WPI invests in research in critical areas, seeking solutions to important and socially relevant problems in such diverse fields as fire protection engineering, life sciences and bioengineering, energy and data science.

https://www.um6p.ma/

UNIVERSITY

https://www.wpi.edu/









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Current International Partner Institutes, IPIs

Virginia Tech, USA

VIRGINIA TECH is a public land-grant university serving the Commonwealth of Virginia, the United States of America, and the world community. The discovery and dissemination of new knowledge are central to its mission. Through its focus on teaching and learning, research and discovery, and outreach and engagement, the university creates, conveys, and applies knowledge to expand personal growth and opportunity, advance social and community development, foster economic competitiveness, and improve the quality of life. The College of Agriculture and Life Sciences (CALS) creates, integrates, and shares knowledge to enhance life sciences, food, and agricultural systems; the economic prosperity and life quality of the greater community, stewardship and health of land, water, and air for future generations; and student learning through diverse, hands-on, experiential opportunities.



https://vt.edu/

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Current International Partner Institutes, IPIs Maastricht University, the Netherlands

Maastricht University (MU) is the largest international university in the Netherlands and, with more than 16,000 students and 4,000 employees. It is known for its innovative education model, international character and multidisciplinary approach to research and education as well as high-quality research and study programs.

The current collaboration between RSIF and MU focuses on ICT and will consist of MU offering sandwich PhD programs in ICT to RSIF scholars. MU's support will later involve assistance by MU faculty to improve RSIF's PhD curricula to match it to international standards; training of host university faculty in the new curricula; short-term teaching exchanges. MU will also assign qualified experts to assist the independent evaluation of host universities, and help the universities forge links within its academic network to facilitate their joint innovation projects in other thematic areas.



https://maastrichtuniversity.nl/

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https://www.ilri.org/

LIVESTOCK RESEARCH

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Current International Partner Institutes, IPIs National Resources Institute, University of Greenwich, UK

The University of Greenwich, National Research Institute (NRI) is a specialist research, development and education with a focus on food, agriculture, environment, and sustainable livelihoods. NRI's mission is to generate, apply and share knowledge and develop skills for a sustainable world.

NRI runs undergraduate and postgraduate teaching programmes and has approximately 50 PhD students at any one time, many of whom are from overseas. NRI has BSI-accredited ISO9001 quality management systems supporting effective operational and financial management.

Current International Partner Institutes, IPIs International Livestock Research institute (ILRI), Kenya

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The International Livestock Research Institute (ILRI) is one of 15 centers of the Consultative Group on International Agricultural Research (CGIAR) and is the only centre dedicated entirely to animal agricultural research for the developing world. ILRI is co-hosted by Kenya and Ethiopia, and has regional or country offices in 14 other locations in Africa, and Asia. The Institute works through extensive partnership arrangements with research and development institutions in both the developed and developing parts of the world.

ILRI's mission is to improve food and nutritional security and to reduce poverty in developing countries through research for efficient, safe and sustainable use of livestock *ensuring better lives through livestock*. The institute's research for development agenda covers a range of areas from laboratory-based biosciences to field-based research.

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https://www.gre.ac.uk/

Current International Partner Institutes, IPIs Karlsruhe Institute of Technology (KIT), Germany

KIT combines the traditions of a renowned technical university and a major large-scale research institution in a very unique way. In research and education, KIT assumes responsibility for contributing to the sustainable solution of the grand challenges that face the society, industry, and the environment. For this purpose, KIT uses its financial and human resources with maximum efficiency. The scientists of KIT communicate the contents and results of their work to society. Engineering sciences, natural sciences, the humanities, and social sciences make up the scope of subjects covered by KIT.



https://www.kit.edu/

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Current International Partner Institutes, IPIs Global R&DB Center, Seoul National University, Korea

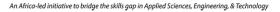
GRC is a state-designated institute under Seoul National University, Seoul Korea. GRC has a global R&DB cooperation platform based on an international Science & ICT Innovation professionals network which has been firmly and actively established through the International Technology Professional Program (ITPP) since its start in 2003. As of 2019, GRC's international ICT professionals network consists of more than 300 Science & ICT policy professionals from over 70 countries. GRC aims to reinforce the future of Science & ICT innovation on a global level with its experience and resources. GRC is actively and continuously building strategic national, regional and global partnerships with various stakeholders in the development of value-added Science and ICT innovation.

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https://en.snu.ac.kr/

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Current International Partner Institutes, IPIs University of Pretoria (UP), South Africa

UP is one of South Africa's top five research universities and has research at the apex of the University's long-term strategic plan and aspires to be the leading research-intensive university in Africa. UP values its international visibility and the impact of its research and innovation on socio-economic development in South Africa and the region, and deliberately balances its focus on research and innovation with partnerships that create an environment that is conducive to scholarly pursuits. The institution has experience and capacity in executing high-quality, collaborative, transdisciplinary food security related research.



https://www.up.ac.za/

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Current International Partner Institutes, IPIs Telecom SudParis, France

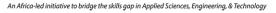
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Telecom SudParis is one of the top French engineering schools of higher education and research that award engineering degrees in France. It produces engineers with skills in information and telecommunication science and technology and expertise in economic, social and environmental fields. Telecom SudParis has a research centre in the field of Information and Communication Science and Technology. Telecom SudParis is part of Institut Mines-Télécom and Institut Polytechnique de Paris.



https://www.telecom-sudparis.eu/

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Current International Partner Institutes, IPIs Ghent University, Belgium

Ghent University is a public research university located in Ghent, Belgium. It was establ 1817 by King William I of the Netherlands. Ghent University is one of the biggest universities, consisting of 44,000 students and 9,000 staff members. The University also s the University Library and the University Hospital, which is one of the largest hospitals in Belgium. It is one of the greatest beneficiaries of funding from the Research Foundation – Flanders (FWO).

Ghent University is acknowledged as an international top player in research. By striving for excellence, strategic clustering and the efficient support of a wide range of research niches, Ghent University aims to stay in this league.

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Current International Partner Institutes, IPIs

IMT Mines Albi, France

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A school of the ministry of industry, the higher national school of mines of Albi-Carmaux (Institut Mines-Télécom (IMT) Mines Albi is part of the Mines-Telecom Institute, which is today the first group of schools of engineering and management in France. IMT Mines Albi is also an associate member of the Federal University of Toulouse Midi-Pyrénées and partner to a large number of institutions and prestigious universities in France and abroad. These privileged partnerships make it a welcoming 'grand école' and research centre, rich in opportunities, and in economic and professional development prospects.

The school is moving forward to transform the concepts, technologies and practices of the future. At the forefront of industrial issues on the international stage, it acts as a local scientific and economic driver. The specificity of the IMT Mines Albi is to combine four missions in a virtuous circle that promotes innovation: i) Training engineers, ii) Conducting research and innovating, iii) Contributing to local and national economic development, and iv) Promoting scientific, technical and entrepreneurial culture.



IMT Mines Albi-Carmaux École Mines-Télécom

https://www.imt-mines-albi.fr/

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https://www.ugent.be/en





