Competition Details

African Engineering and Technology Network (Afretec) Call for Proposals – Seed Grants Inclusive Digital Transformation of Africa

Dates

Internal Submission Deadline:	Friday, February 28, 2025 at 5:00 PM

Details

Administrator(s):	CIT ADR Office (Owner)
Category:	Internal Seed Funding
Cycle:	2025
Discipline Subject/Area:	Multi-institution collaborative Engineering and Technology research projects related to the inclusive digital transformation of Africa
Number of Applications Allowed per Applicant:	1
Number of Possible Awardees:	11
Award Range:	Up to $50,000

Description

Carnegie Mellon University Africa (CMU-Africa) in support of the African Engineering and Technology Network (Afretec) is launching a call for collaborative seed research proposals to build research capacity in the fields of engineering and technology to accelerate and support the inclusive digital transformation of Africa. This initiative is aligned to the Afretec goal to drive inclusive digital growth on the African continent. The seed grants will support research related to digital technologies such as artificial intelligence (AI), machine learning, information and communication technology, cyber security and so on. A special focus will be placed on research with the potential for impact in Africa in the Afretec knowledge creation clusters areas of

Health

Environment and Sustainability

Energy

As well, a focus is placed on early career researchers, interdisciplinary collaborations, and projects that impact diversity, equity, and inclusion.

Dates and Details

Start Date: July 1, 2025

Award Period: up to 12 months

Disciplines: Multi-institution collaborative Engineering and Technology research projects related to the inclusive digital transformation of Africa

Maximum Award: $50,000

Estimated Awards: It is expected that a total of 11 grants; up to 3 grants will be awarded per research cluster and up to 3 in other research areas depending on the quality of submissions and availability of funds.

Submission Deadline: Friday, February 28, 2025 at 17:00 Central African Time

Submission Procedure: Proposals are to be submitted via this submission portal by the above Submission Deadline:
https://cmu.infoready4.com/#viewApplicationForm/1958443

Background and Context
Africa has some of the fastest-growing economies in the world, often driven by the digital transformation of these economies and societies. Africa is home to the fastest-growing workforce in the world. These transformations present novel opportunities for research and application of digital technologies such as AI, machine learning, information and communication technology, cyber security and so on.

To assist in driving the inclusive digital transformation of Africa, Afretec aims to build a digital knowledge creation ecosystem that expands technology development and job-creating innovation. This initiative was created to generate and expand innovative African-focused research that responds to critical challenges on the continent with the support of African and international researchers. This will be achieved by supporting multi-institutional research collaborations that work on uniquely African challenges and solutions in the fields of engineering and/or technology.

One of the primary objectives of the Digital Knowledge Creation Ecosystem is to create and encourage research collaborations that seed research and allow research teams to attract, enhance and develop further research and/or practical solutions for Africa. The knowledge creation ecosystem aims to provide a platform for researchers to engage in exciting and topical research, share best practices, enhance research capability, and encourage multi-institutional research collaboration that contributes towards driving the inclusive digital transformation of Africa.

The Opportunity
CMU-Africa, in support of Afretec, is offering research seed grants to promote the creation of multi-institution research teams that include researchers from at least two members of the Afretec network. These grants are available for research teams to form, identify and develop research projects in areas that drive inclusive digital growth in Africa and lead to job creation. The purpose of these teams is to support planning activities that aid prospective research teams in preparing for proposal submissions to external funding opportunities and build momentum toward a sustained research program. Proposed research projects must be cross-university collaborations that focus on innovative approaches and apply digital technologies to African challenges.

Areas of focus
While the selected research projects should build on underlying engineering, technology, and science in areas such as artificial intelligence, machine learning, robotics, information technology, and cyber security, it needs to be firmly rooted in developing and preparing Africa for digital transformation, job creation, and socio-economic impact. Example impact areas include (with special emphasis on the three highlighted areas):

> ***Health**

> ***Environment and Sustainability**

> ***Energy**

Agriculture

Education

Financial Inclusion

Infrastructure

Manufacturing

Transportation

Waste Systems

Water Systems

Projects that focus on digital technologies in these areas and which demonstrate consideration for gender equality, people with disabilities, refugees, and internally displaced persons are especially encouraged. The above list is not exhaustive and other application areas (i.e., based on context, and as suggested by the Sustainable Development Goals (https://sdgs.un.org/) related to inclusive digital transformation that can make a positive socio-economic impact in Africa as well as lead to job creation will be considered.

Eligibility

Proposals must be submitted before the submission deadline (see page 1)

Applicant teams must consist of Principal Investigator (PI) researchers from at least two Afretec member universities. The current list of Afretec Members are as follows (listed alphabetically):

The American University in Cairo

Al Akhawayn University

Carnegie Mellon University

University Cheikh Anta Diop Dakar

University of Lagos

University of Nairobi

University of Rwanda

University of Witwatersrand

Additional PIs from non-Afretec African universities are eligible to be part of the application team and receive funding under this seed grant. Additional institutions that are not African universities can be engaged but cannot receive any resources through the seed grant.

A researcher can serve as a lead PI for their university on only one Inclusive Digital Transformation Research Grant or Seed Grant proposal. A person can be a PI or co-PI on only one active Afretec-funded research grant or seed grant at a time.

Evaluation Criteria
A successful seed grant proposal must:

Target a research problem that contributes to advancing the development or application of engineering or technology such as AI, machine learning, information and communication technology, cyber security, and so on.

Connect the research to driving inclusive digital growth that will lead to socio-economic impact on the African continent in one or more of the areas of focus and identify possible opportunities for job creation on the African continent.

Be a PI team with members from at least two different Afretec members.

At least one of the PI team members must be an Early Career Researcher. An ECR is a post doctoral fellow and/or faculty member at an Afretec partner university within the first ten years after their PhD. However priority will be given to ECRs with a PhD obtained in the last 5 years or less.

Articulate a sustainability plan including plans for future research and funding beyond the seed grants.

Describe expected outcomes and the impact of the proposed research.

Proposals with a strong, diverse research team will be prioritized to promote an inclusive research ecosystem

Proposals that feature bold interventions designed for and/or with women, youth, refugees, and other underserved groups, or that actively involve these groups in the research process, will be given priority consideration.

Funding Details and Guidelines

The maximum total funds that may be requested per project proposal and the maximum duration of the project are listed on page 1. Project funds may be used for the following purposes:

Employee Salaries: Salary support for PI, post-doctoral fellows, graduate students, undergraduate students, and technicians. Salary amounts are commensurate with the proposed effort and according to each university's compensation policies. The positions and individuals holding them should be identified when possible.

Employee Fringe Benefits: Personnel benefit rates may not exceed 25% of the salary for full and part-time employees. Each university must provide justification of their fringe benefit rates based on institutional accounting.

Professional Fees: Professional and contractor services to carry out the project.

Travel Costs: Transport and accommodation to carry out the project including fieldwork, student and faculty exchanges, and project meetings. These are actual costs and not per diems. Cost estimates should be detailed in the justification (e.g. "$400 airfare, 3 days at $100/day lodging, $50 ground transportations, meals covered by the conference, total = $750 per person").

Project Specific Expenses: These include

Tuition: Student tuition support is capped at actual tuition or $20K/student/year whichever is lower.

Organization of meetings, workshops, symposium.

Materials and supplies costs that are specifically required for this particular project and are required in the direct performance of the research. These expenses include applicable laboratory supplies and computers costing less than $1000/unit.

Publication Costs/Documentation/Dissemination. Publication costs to Scopus categorized Q1 and Q2 journals can be charged to the project.

Capital Assets over $1000/unit: Capital equipment that must be acquired to conduct the proposed project. Capital equipment is defined as all nonexpendable, tangible property with a useful life of more than one year, and an acquisition cost of $1,000 or more per unit. Such equipment must

remain at the institution for the period of the award.

Subawards: The PI organization (only) should list the cost of other institutions participating in the project.

Other Costs: Include here any costs that do not fit in the above categories.

Indirect costs. Indirect costs (also known as overhead) are limited to no more than 10% of total direct costs (exclusive of capital equipment and subawards). For CMU the indirect cost rate is 0%.

Direct costs may not be used for any of the following:

Construction projects or laboratory renovations.

Furniture, office equipment, and office supplies.

Administrative support.

During the period of the grant, budget variations of more than 10% of the total budget in any budget category must be approved in advance. For proposals with Carnegie Mellon University as a partner, at least 70% of the project funds must be spent at African-based Universities. For the purposes of this call, Carnegie Mellon University-Africa is considered Africa-based, but not other campuses of Carnegie Mellon University.

Application Process – Proposal Submission and Format

Applications should be prepared in 11pt minimum font on A4 or US Letter paper with at least 1 inch margins. It should be comprised of the following:

Cover Page (1 page) – detailing the research team, the title of the project, and an abstract of up to 200 words.

Project Narrative (2 pages) – Briefly summarize the rationale for the proposed area of research, the potential socio-economic impact of the project on the African continent, and the impact in terms of job creation. In addition, the project narrative should summarize the proposed activities and timeline.

Researcher Profiles (1 page total for all researchers) - The application should specify the expertise and experience of anticipated researchers and a brief description of how their expertise would contribute to the research project.

Future Plans (1 page) – Briefly summarize potential plans for future support, funding opportunities, and research questions to highlight the sustainability of the research project.

Inclusion Statement: Please describe how your proposal contributes to inclusive digital transformation. To what extent does your research involve the voice or address the needs of diverse populations, ensuring equitable access, usability, and benefits, particularly for underserved populations? Inclusion should be relevant to the specific context of the research.

Project Budget – Project budgets are entered into the Afretec budget template that will be provided. The budget provides a space for justifying each budget line. One budget is submitted per team member.

Review Process

Proposals will be reviewed by a faculty panel which will make recommendations for the award. The Director of Afretec will make the final award decision in consultation with other key stakeholders.

For any additional questions, please contact the Director of Afretec – William Mutero, director-afretec@andrew.cmu.edu

CENTER FOR INCLUSIVE DIGITAL TRANSFORMATION OF AFRICA - DETAILED PROPOSAL BUDGET

1) These step by step directions will help ensure that you have a complete budget

2) You may find it helpful to print a copy of these directions for your reference during the budgeting process

3) Please input your budget in the relevant tab. The information from the tab will be used to automatically calculate
NO input is required from you on the Budget Summary tab, please do not input any information directly into this ta

4) If you have any questions, please feel free to contact your Finance Point Person at CMU-Africa

BEFORE YOU START: BUDGET DEVELOPMENT GUIDELINES

1) As a general principle, we require enough information to understand:

      i. the purpose for a given expense as it related to the project and

      ii. the assumptions made to determine the estimated expense

2) The budget should be aligned with the Technical Proposal and / or Statement of Works (whichever is required) so
understand the corresponding expenses in the budget. To accomplish this:

      i. The budget must be aligned with the activities described in the Proposal or SoW

      ii. Expenses included in the budget should flow from the activities and project structure described in the Pr

3) Enough detail should be provided in the budget so that it is clear what assumptions are being made and how the
should be provided in colums B and C, with unit and rate assumptions in columns D and E. Column G on the univers
detailed budget justification

4) - All costs must be specific to the project or activity. Therefore, we do not fund 'general,' 'other' or 'contingency'
    - Costs that are neither incremental nor directly attributable to the project/program activities will be considered
      funded by the overhead line. These are limited to no more than 10% of total direct costs (exclusive of capital
      indirect cost rates require budget justification based on institutional accounting plicies.

5) CMU will review the proposed budget in detail to determine whether the assumptions made are reasonable. We
have been thoroughly considered and accounted for, and that the funds requested are both necessary and sufficien

BUDGET TEMPLATE COMPLETION

1) Employee Salaries Section

    - The employees to be listed in this section are the one directly working on the project or activity and whose t

    - Each employee should be listed on a separate line (e.g.. If you have 2 Research Assistants, list RA1 and RA2 o

    - Update required information in columns A to G, clearly stating role title and function so it is clear how the ro

2) Employee Fringe Benefits Section

    - The section is to capture the fringe benefit costs which the employer contributes on behalf of employees an
insurance, social security, etc...)

    - The maximum permissible fringe rate is 25%

3) Professional Fees Section

- The section is to capture the cost of **external** consultant individuals or firms which a university may hire t
project (eg: marketing consultancy, M+E consultancy, Training consultants, etc...)
- Each professional should be listed on a separate line
- Update required information in columns A to G, clearly stating the professional service and purpose so it is c

4) Travel Costs Section

- Travel should be budgeted per trip, clearly stating trip purpose in relation to the project or activity, including
trip.
- In columns D and E, enter for flight costs, accommodation, and meals and subsitence rates

NB: In accordance with Foundation's travel policy, travel must be booked at th Foundation does not fund any business or first class travel

5) Project Specific Expenses and Capital Assets Section
- These expenses captured in the section should only be those **directly related to the project or a**
- Capital equipment includes items with cost per item in excess of $1000. Such equipment will remain with th

Budget variations within 10% are permissible so long as they relate to activities described in the approved propos any budget category must be approved by CMU in advance.

Organization Name:

Project Title:

Project Manager/Coordinator name

Project Manager/Coordinator email

Project Manager/Coordinator telephone

Lead Project personnel name

Lead Project personnel email

Lead Project personnel telephone

Project proposed start Date:

Project proposed end Date:

Project Indirect Cost Rate

Unit of personnel effort: (enter "days","months", or "years")

                        If "days", the Avg # working days per year.

Brief project description (50 words or less)

INFORMATION

10%

Up to 10%

AFRETEC AWARD - CENTER FOR INCLUSIVE DIGITAL TRANSFORMATION OF AFRICA - DETAILED PROPOSAL BUDGET

		Year 1	Year 2	Year 3		Annual Cost		
Employee Salaries	**Role Function**	**Number of Days /months**			**Daily/Monthly Rate**	**Year 1**	**Year 2**	**Year 3**	**TOTAL**
Research Associate	Responsible for data collection and analysis	12.00	7.00	4.00	1,000.00	12,000.00	7,000.00	4,000.00	23,000.00
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Total Employee Salaries						12,000.00	7,000.00	4,000.00	23,000.00
Employee Fringe Benefits	**Role Function**	**Number of Days /months**			**Daily/Monthly Rate**	**Year 1**	**Year 2**	**Year 3**	**Total**
Research Associate	Responsible for data collection and analysis	12.00	7.00	4.00	120.00	1,440.00	840.00	480.00	2,760.00
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Please specify role	Please specify role function / purpose					-	-	-	-
Total Employee Fringe Benefits						1,440.00	840.00	480.00	2,760.00
Professional Fees	**Purpose**	**Number of Units**			**Unit cost**	**Year 1**	**Year 2**	**Year 3**	**Total**
Marketing and Communications		5.00	4.00	7.00	500.00	2,500.00	2,000.00	3,500.00	8,000.00
Please specify professional service						-	-	-	-
Please specify professional service						-	-	-	-
Please specify professional service						-	-	-	-
Please specify professional service						-	-	-	-
Total Professional Fees						2,500.00	2,000.00	3,500.00	8,000.00
Travel Costs	**Trip Purpose**	**Number of Units**			**Cost per trip**	**Year 1**	**Year 2**	**Year 3**	**Total**
Trip to Kigali	Three-day meeting with network partners	2.00	3.00	5.00	2,500.00	5,000.00	7,500.00	12,500.00	25,000.00
Please specify destination	Please specify role function / purpose					-	-	-	-
Please specify destination	Please specify role function / purpose					-	-	-	-
Please specify destination	Please specify role function / purpose					-	-	-	-
						5,000.00	7,500.00	12,500.00	25,000.00
Project Specific Expenses (must be incremental to project)		**Number of Units**			**Unit cost**	**Year 1**	**Year 2**	**Year 3**	**Total**
Student tuition support	One year's tuition for graduate student working on the proj	1.00			16,000.00	16,000.00	-	-	16,000.00
Publication costs						-	-	-	-
						-	-	-	-
						-	-	-	-
						-	-	-	-
						-	-	-	-
						-	-	-	-
Total Project Specific Expenses						16,000.00	-	-	16,000.00
Capital Assets over $1,000/unit	**Purpose**	**Number of Units**			**Unit cost**	**Year 1**	**Year 2**	**Year 3**	**Total**
Laptop	Laptop for research associate	1.00			500.00	500.00	-	-	500.00
Please specify item	Please specify purpose					-	-	-	-
Please specify item	Please specify purpose					-	-	-	-
Please specify item	Please specify purpose					-	-	-	-
Please specify item	Please specify purpose					-	-	-	-
Total Capital Assets						500.00	-	-	500.00
Subawards	**Purpose**	**Number of Units**			**Unit cost**	**Year 1**	**Year 2**	**Year 3**	**Total**
Partner University		15,000.00	20,000.00	10,000.00	1.00	15,000.00	20,000.00	10,000.00	45,000.00
Partner University						-	-	-	-
Partner University						-	-	-	-
Partner University						-	-	-	-
Partner University						-	-	-	-
Total Subawards						15,000.00	20,000.00	10,000.00	45,000.00
Other Cost	**Purpose**	**Number of Units**			**Unit cost**	**Year 1**	**Year 2**	**Year 3**	**Total**
Please specify item	Please specify purpose	2.00	1.00	4.00	1,500.00	3,000.00	1,500.00	6,000.00	10,500.00
Please specify item	Please specify purpose					-	-	-	-
Please specify item	Please specify purpose					-	-	-	-
Please specify item	Please specify purpose					-	-	-	-
Total Other Cost						3,000.00	1,500.00	6,000.00	10,500.00
TOTAL ACTIVITY BUDGET						55,440.00	38,840.00	36,480.00	130,760.00

Total Budget Summary

#	BUDGET LINES	CMU Africa
1	Employee Salaries	23,000.00
2	Employee Fringe Benefits	2,760.00
3	Professional Fees	8,000.00
4	Travel Costs	25,000.00
5	Project Specific Expenses	16,000.00
6	Capital Assets over $1,000/unit	500.00
7	Subawards	45,000.00
8	Other Cost	10,500.00
9	Indirect Cost (Program delivery fee)	13,076.00
	Total Project Budget	**143,836.00**