Call for Proposals

Research Grants in Computational Modeling and Materials Science FY 2026/2027

Overview of KENET's Research Grants Program

One of KENET's mandates is to catalyze collaboration in research and education among its member universities and research institutions. KENET promotes collaboration through facilitation of Special Interest Groups (SIGs) in priority academic areas, discovery of active researchers/faculty, provision of research and education grants to researchers and member institutions, as well as travel grants for faculty and/or graduate students in SIG areas.

As of April 2026, KENET was supporting three Special Interest Group areas, namely, Computer Science and Information Systems (CSIS), Computational Modelling and Materials Science (CMMS), and Engineering. The target group for this Call for Proposals is early career PhD faculty and/or researchers in the SIG in Computational Modeling and Materials Science academic area. However, it is possible for the Principal Investigator in the call to collaborate with faculty or researchers in other academic domains.

The Computational Modeling and Materials Science is a Special Interest Group supported by KENET to enhance research capacity development in the use of computational modeling in science and technology. Research work is expected to involve university faculty and graduate students in Chemistry, Physics and Environmental Sciences but strongly welcomes those from other basic and applied sciences. To increase research output directly or by complementing the existing limited work from groups with standard experimental infrastructure, CMMS has embraced computational modeling, which is now considered as an important decision support tool. In this regard, CMMS targets training of graduate students as well as young and upcoming faculty in universities, research institutions and industry.

KENET shall competitively award six (6) research grants of up to KES 2 Million each in the following thematic areas:

1. Drug Design and Related Technology.
2. Earth Observation Science and Technology.
3. Materials for Energy Conversion and Environmental Sustainability.

Grants: Structure, Technical Brief and Schedule

Grants Structure

1. Each theme will be awarded two (2) grants in the 2026/2027 round of funding.
2. Each grant will be for a maximum of KES 2 Million.
3. The grant period is 12 months.

Areas of Focus: Technical Brief

1. Drug Design and Related Technology

Drug Design is a multidisciplinary area that employs both fundamental natural and applied sciences, in particular Medicinal Chemistry, Pharmacology and Molecular Biology, as well as Computational Methods. It involves identifying a protein or enzyme of interest and interacting with it to evolve therapeutic effects. It is a crucial theme that has the potential of growing R & D in the country leading to capacity development as well as cost cutting of the importation of medicines, with direct impact on the welfare of the citizens.

In the past, the Drug Design process took more than a decade to get products to consumers, mainly due to the pre-clinical and clinical trials. It is expected that in the era of AI and with access to compute resources, this period can be reduced. Drug Design has been applied to produce new interventions in diseases such as Malaria and HIV, among others. This thematic call will create awareness in Drug Design potential as well as identify active Kenyan faculty in this area in the immediate term with more outcomes expected in the medium to long term. Proposals submitted for consideration should clearly identify a problem with suggested methods of approach in seeking solutions.

2. **Earth Observation Science and Technology**

Human development and sustainable utilization of natural resources requires a balance to ensure that the next generation inherits a habitable world. In recent years, Earth Observation Science and Technology has taken a firm root in providing information on the state of planet earth, thereby generating large volumes of data that require careful collection and storage. The information is provided by satellite, lately also involving drones, with the image capturing devices recording the physical, chemical and biological state of the earth. Such data provides a space map on activity on the ground from agriculture, mining, water management, forestry, as well as rural and urban growth, among others.

Earth Observation Science and Technology can be used to support policy development by national and local authorities, urban planning, sustainable commercial exploitation of natural resources, as well as ecological and biodiversity protection for posterity. The recent flooding in urban and rural areas during the rainy season has become life threatening as seen by the loss and damage of properties, infrastructure, erosion of fertile farmland, landslides, and deaths of citizens and livestock. Applicants are expected to develop real-time monitoring and early hazard warning systems that will promote public safety.

3. **Materials for Energy Conversion and Environmental Sustainability**

The development of new materials remains crucial to environmental sustainability in Kenya and across the globe. Focus on environmentally friendly energies, homes and health is important to socioeconomic development and relies on materials science. The use of AI in inverse design of problems in materials science is a new frontier that has the capability of identifying materials of interest from open data repositories. This allows a rapid turnaround in the time required to obtain results as well as the prediction of new materials. Applicants are expected to employ AI techniques to enhance output leading to solutions providing new methods in the utilization of environmentally friendly energies or materials in housing, public spaces and transport.

Recycling of waste materials for sustainable use has become necessary in urban areas and now involves industrial partners with the ability to engage tertiary as well as research institutions in handling electronic, plastic and organic waste for mutual benefit. Proposals on waste recycling that include industrial partners are encouraged.

Research Computing and Research Data Storage @ KENET

KENET provides a select set of research computing services to grantees, including access to computing facilities at partner institutions, such as the CHPC in South Africa, as well as 24-hour local cloud services that may be used as a platform to power computing needs of the research problem.

KENET's expanded GPU cluster will also be available for use by grantees. Additionally, grantees will have FREE research data storage during the project.

Schedule

Applicants in these areas should consider the calls by KENET for support as preparation for funding to other organizations, at the national and international levels, providing much larger funding.

Table 1: CMMS grants call timeline.

Activity	Dates
Call for Proposals open for submissions	May 11 – July 10, 2026 (2 months)
Review and evaluation of received proposals	July 11 – July 31, 2026
Presentations of shortlisted applicants	August 1 – August 14, 2026
Finalists announced and grants awarded	August 18, 2026
Grantees on-boarding	September 7 – September 11, 2026
Implementation period	September 2026 – June 2027
Evaluation, monitoring, reporting and close-out	E & M – quarterly per group

Eligibility, Terms and Conditions

Eligibility

This call is open to Computational Modeling and Materials Science faculty (who are full-time) at any of the KENET member institutions. The lead applicant must be a PhD holder, attained within the last five years from the submission date of the proposals, and must demonstrate active research interest. Those recently awarded KENET research grants are not eligible to apply as lead applicants.

Team Composition

One of the main objectives of this grant is to develop expertise and build capacity in the areas of focus, and to grow a community of practitioners. To this end, it is important for faculty to work closely with students with a view to furthering their knowledge and capacities in the various technologies and issues of interest, in the areas of focus. Incorporating students as team members as well as designing student-level projects from the research activities to be undertaken is encouraged. The lead researcher(s) must be a PhD holder meeting the eligibility criteria above. The lead researcher is strongly encouraged to incorporate other researchers into their team, especially dedicated research staff or full-time MSc/PhD students. If other members are incorporated into the team, then the roles and extent of involvement of these team members must be clearly spelt out. A Letter of Commitment from each Team Member with support from respective Heads of Department or Deans must be included as part of the team's submission documents. Teams with multidisciplinary backgrounds are encouraged. The lead researcher will serve as the team leader and the primary point of contact on all matters related to implementation of the grant.

Collaboration and Partnerships

To enhance research uptake and utilization, it is important for researchers to identify and seek out collaborations and partnerships with strategic persons and institutions. This not only opens up pathways for moving research from the lab to the society, but also enhances visibility of researchers and their institutions, attracting even more funding and opportunities to further their research agenda. Given the identified areas of focus, it will be imperative for teams to identify strategic partnerships and collaborations with a view to modeling and planning for prototyping, testing and scaling at later stages in the research cycle.

Intellectual Property

Intellectual property derived from the funded R&D activities will be appropriated and protected based on the lead researcher's institution's IP policy and procedures.

Post-Award Requirements

The successful grantees will be expected to:

1. Provide quarterly progress reports to the CMMS Research Associate at KENET.
2. Participate in and present project work at selected meet-ups organized by KENET.
3. Grow a community of researchers in the area, by reaching out to other local researchers working in the area and other related multidisciplinary domains.
4. Actively seek post-grant funding to further their research work by writing (joint) funding proposals.
5. Prepare a final project report at the end of the grant period and submit it to KENET. Prepare an abridged version of the project report for profiling on KENET's and institutional websites.
6. Publish paper(s) on their work in reputable journals.

Proposal Submission

Concept Note Format

1. The concept note should not exceed 6 pages (12pt, single spacing, excluding appendices).
2. The concept note should be submitted in PDF format.
3. The research area should be clearly indicated in the title page.
4. No personal identification (names) or institutional affiliation should be included in the concept note.

Concept Note Structure

The concept note should have the following structure:

1. Title
2. Problem definition and justification
3. Proposed solution and justification
4. Methodology
5. Resources (human, hardware, software, etc.)
6. Work plan (not exceeding 12 months in duration)
7. Detailed Budget (not exceeding KES 2 Million)
8. Appendices

Supporting Documents

The following documents should be included as part of the concept note submission:

1. Team profile document, indicating the names, institutional affiliation and brief biographies of the lead researcher(s). Details of other team members and any collaborating institutions should also be included in the team profile.
2. CVs of the lead researcher(s), clearly profiling research activities undertaken to date as well as relevant publications.
3. Letters of Commitment from team members and any collaborating institutions.

Concept Note Submission

Concept notes with all supporting documentation should be sent via email to cmmsgrants@kenet.or.ke by **10th July 2026, 5.00PM EAT**.

Enquiries and Applicant Support

All enquiries and requests for further information related to this call should be addressed to grantsadmin@kenet.or.ke.

Proposal Evaluation

1. KENET will constitute a review panel of leading CMMS experts. Members of the review panel will sign Non-Disclosure Agreements, as well as statements acknowledging that they will make no claim to the intellectual property developed by the grantees.
2. The reviewers will review all received applications as per the evaluation criteria provided in Table 2 below and select the top four (4) proposals for each area of focus.
3. The top four (4) finalists in each area will be invited for a final face-to-face presentation. During the oral presentations, the applicants will respond to and clarify any questions from the panel that will have arisen out of their written submissions. They will also be required to respond to any ad-hoc questions arising from the oral presentation.
4. After the oral presentations, the reviewers will make their final decisions on which proposals will receive the grant, two (2) per area of focus. Six (6) teams will be selected.
5. Selected grantees will be notified formally and profiled on KENET's website.

Evaluation criteria:

Table 2: CMMS grants evaluation criteria.

Evaluation Criteria	Evaluation Aspects	Weighted Score
Relevance and justification of proposed research topic	Is the proposed topic and preferred solution aligned with Kenya's Bottom-Up Economic Transformation Agenda, Vision 2030 or SDGs? Is it an important problem to solve in a developing world context? Is there sufficient research uptake and utilization potential for the proposed research outputs?	15%
Technical approach and methodology	Is the research concept innovative and effective compared to existing alternatives? Does the proposed approach have a potential experimental component partner to test the computational findings proposed? Is there a potential HPC development component? Is the proposed work doable given the time and budgetary constraints of the grant, considering the team's composition?	35%
Budget justification	Are the items to be procured related to the project objectives and activities? Can these items be obtained with the project timelines?	10%
Viability assessment and scaling potential	Is scale built into the solution? Can it be replicated in similar contexts? Is there scope for furthering the research idea/prototype? Is there scope for future external research funding to scale-up the research?	10%
Human capacity	Does the team have the required expertise, experience and necessary contacts to deliver? Do they have a local footprint?	10%
Student engagement	Are there concrete roles and responsibilities for student team members? Are there clearly defined student-level project ideas?	10%
Inter-university/industry involvement	Have critical partnerships in the main domain of application been identified? Is there a likelihood for collaboration during and after the grant period? Does lack of partnerships severely impede the research work during the grant period?	5%
Potential for publication in refereed journals and/or conferences	Are the results likely to be published in international peer reviewed journals /conferences that are indexed in the Elsevier Scopus database?	5%