

ARYABHATTA KNOWLEDGE UNIVERSITY, PATNA, BIHAR

Guideline for Collaborative Research Scheme under TEQIP-III Project at AKU

Objectives:

The objective of Collaborative Research Scheme (CRS) is to promote research environment among the faculty members of technical Institutes/Centers affiliated to Aryabhatta Knowledge University, Patna, Bihar. This scheme will provide the financial assistance through TEQIP-III funds for creating and updating the general research capabilities of faculty members for building research communities, encouraging collaboration and networking among different institutions with the goal of enhancing the research output; and spreading and sharing of knowledge and skills. The proposal should include title of the project, profile of applicants/co-applicants and name of their institutions, research credentials, need of the present research, objectives, social relevance, methodology, action plan, financial requirement, expected outcome (in terms of SCI indexed publications, development of innovative product/process, industry of social relevance technologies etc.)

Eligibility:

- a) The collaborative institutes must be an affiliated/constituent Institute of the University.
- b) The investigators should be a bonafide faculty member/Center Coordinators of affiliated/constituent Institute/affiliated Centers of the University with research experience and quality publications.
- c) The basic research facilities should be available in the institute.
- d) At least **Two** or maximum **Four** institutes can be considered for one proposal under Collaborative Research and Innovation Program for financial support.
- e) Only **One** proposal will be sanctioned to one principal investigator at any point of time within the duration of project.

f) The proposal shall be led by Principal Investigator and Co-Principal Investigator (If any) of the lead institution and others will be network institutions (One Co-Principal Investigator from each network institutions).

Above are the minimum eligibility *criteria* for application under this program (*CRS*). However, a *Proposal Evaluation Committee* will be constituted by the University for Review and selection of proposals.

Proposal Evaluation:

A proposal will be primarily evaluated on the following criteria:

- Quality / relevance of the area proposed.
- Potential to significantly advance knowledge and / or create impact on society.
- Joint strength of the teams.
- Proposed outcome & deliverables.
- Available and complementary experimental infrastructure in the institutions (for such kinds of projects).

Duration of Project:

Duration of the project will be till July 31, 2020 from the date of receipt of funds in the institutes account.

Focus Areas

1. Artificial Intelligence and Cognitive Science
2. Machine learning
3. Renewable energy and its integration
4. Advanced Manufacturing
5. Mechatronics
6. Advanced Electronics and Communication

7. Nanotechnology
8. Cyber security
9. Technologies for Swachh Bharat
10. Energy and Heat Transfer
11. Transportation and Smart Infrastructure
12. Robotics and Embedded Systems
13. Future of Earth: Green and Renewable Technologies
14. Technology Enhanced Education and Learning, including Assistive Technologies
15. Agricultural and Food Sustainability
16. Technologies for Rural and Women Empowerment
17. Fluid dynamics and smart materials
18. Power system, control system and Power electronics
19. Water conservation and sustainability
20. Data mining, data base, distributed system and security.
21. Graphics visualization and software engineering
22. Climate change and its sustainability
23. Remote sensing and GIS
24. Eco-hydrology and Biogeochemistry
25. Reservoirs / Rivers / Wetlands dynamics
26. Land Resources/ Environmental Studies

Limit of funding:

a) Total funding may not exceed Rs.3.0 Lakh per project (150 Lakh for total 50 projects). Head-wise permissible limit per project is indicated in below table,

S.No	Description of Expenditure Head	Ceiling amount (INR)	Remark
1	Consumables relevant to proposed research proposal	1,00,000.00	
2	Travel for research activities only (including accommodation& fooding)	50,000.00	Travel grant within country as per prevailing Bihar state government rules
3	Patenting/Registration fee for Conference/ Seminars /Workshops/Training programme	40,000.00	
4	Outsourcing related to research work (i.e. Prototyping/Fabrication/Testing /Characterization/Calibration etc.) and Software	1,00,000.00	
5	Project Contingencies	10,000.00	

b) The first installation (One fourth of the total project value) shall be transferred to the *Principal Investigator's (PI's) bank account, details of which are provided in the proposal application/form* (through PFMS) in advance and remaining fund will be released subsequently on reimbursement basis after producing UC issued from competent authority of the lead institute.

c) TEQIP-III rules would be applicable for payment/reimbursement.

d) The release of subsequent grant, after first installment, shall be on the basis of submission of Utilization Certificate (UC) with certified copy of expenditures. There, will be a midterm review of each project after 6 months from the release of the first installment (*if possible*).

e) The reimbursement claim and settlement of bills shall be submitted to the University within 90 days after release of first installment and subsequently the bills for remaining amount of sanctioned grant shall be claimed on quarterly basis for reimbursement to the University. Failing which the claim may not be processed for reimbursement.

f) Release of last installment/ last reimbursement (may be 15-20% of the project cost) shall be subject to submission of the report (three copies) to the University.

Terms and conditions:

a) The Principal Investigator of lead institution has the primary responsibility for the implementation of the project to meet the desired objectives.

b) If the Principal Investigator of Collaborative Research and Innovation Program joins another institution of AKU, then AKU will have no objection to transfer the project if No Objection Certificates are obtained from both the parent Institute and the Institute where the Principal Investigator intends to join.

c) In case the PI (Principal Investigator) and Co-PI (Co-Principal Investigator) of lead institutes leave the Institution without transfer of the project or goes on long leave, then Co-Principal Investigator of network institutes would be allowed to continue with the project, subject to the consent of the Principal Investigator in case of long leave and approval of AKU. All such requests should be sent to the Vice Chancellor, AKU in advance for approval. Therefore, association of Co-Investigators in the project is desirable.

d) In case the Principal Investigator of lead institutes leaves the Institute and there is no other associated Co- Investigator to carry out the project, then Head of the Department should take the responsibility for identifying a competent person in the Institution in the relevant subject area and submit his/her bio-data to the CRS Committee, AKU for further consideration.

e) The grant will be utilized strictly for the purpose as specified in the sanction letter. Reappropriation of funds from one head to another is strictly not permitted.

f) Once the project is sanctioned, the AKU shall not consider any request for additional grant.

g) Separate institutional overheads for execution of the project shall not be provided by AKU.

h) Partial funding from any other source(s) for the proposed research project is not allowed under this scheme.

i) The project grant can be utilized in the Lab consumables, outsourcing and Contingency.

j) Out of the project grant, no funds can be used for going abroad to attend Conferences/Seminars. However, for presenting a paper in a Seminar/Conference (including the registration fee, accommodation, fooding and travel grants as per prevailing Bihar state government rules) within the Country may be met from the grant.

Expected Outcomes:

1. Research paper (One SCI/SCOPUS indexed paper)/ Patent
2. Consortium/Research group formation

Following changes were made to the original CRS guidelines draft in the 8th meeting of Board of Governors. Please be notified all the changes will be effective retroactively.

- a) Proposals from Centers of AKU i.e. Center for Geographical Studies, Center for River Studies, and Aryabhatta Center for Nano Science and Nano Technology can also be accepted in CRS under Teqip – III program at AKU.
- b) Funds for qualified/approved proposals in CRS will be transferred to the Principal Investigator's (PI's) account and not to the Lead Institute's account.
- c) Mid-term review of all the proposals approved and funded under CRS at AKU will be done by the Committee of Experts setup at AKU between April 01 - 30, 2019. All PIs should prepare a mid-term project progress report along with justification of expenditure made in the project. PIs will also be required to do a PowerPoint presentation before the committee of experts.
- d) Periodic funding/reimbursements (after payment of initial grant of 25% of total project allocation) of the projects approved under CRS will be done quarter-wise after receiving the utilization certificates, bills etc from PIs through proper channel.
- e) Deadline for the completion of CRS project shall be July 31, 2020 or one year from the day first instalment of CRS funding is received by the PI in their account, whichever is earlier.
- f) All the PIs of projects approved and funded under CRS at AKU must submit the project completion report mentioning the outputs and other performance indicators along with all the pending invoices, bills and utilization certificates through proper channel to Teqip Cell at AKU by 31st July, 2020. No reports, bills, invoices etc will be accepted after the said date.