



SANT GADGE BABA
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No. SGBAU/7-D/09/ 428 /2020
Date 16./10/2020

To,
The Principal/ Director/ Head /Co-ordinator,
All affiliated Colleges/University Departments (Science and Engineering Only)
Sant Gadge Baba Amravati University, Amravati.

Subject: Submission of Pre-Proposals (Project ideas/concepts) under RGSTC's Scheme
"Assistance for Science & Technology Application Through University System."

Sir/Madam,

Sant Gadge Baba Amravati University, Amravati has signed Memorandum of Understanding (MoU) with Rajiv Gandhi Science & Technology Commission (RGSTC), Govt. of Maharashtra, Mumbai for implementation of the Scheme "Assistance for Science & Technology Application through University System". Under this scheme, Pre-Proposals (Project ideas/concepts) are invited from the Teachers of the Affiliated Colleges and University Departments in the prescribed format. The Pre-Proposals may please be prepared as per the Guidelines and formats are available on the University website www.sgbau.ac.in under advertisement section and in news section.

The Pre-proposals (Project ideas/concepts) which meet the objectives of the scheme would be pursued further for consideration. Pre-Proposal complete in all respects along with relevant documents may be sent in soft copy along with ten hard copies through Head / Co-ordinator of the University Departments / Principal /Director of the Affiliated Colleges to **Dr. Sandeep A. Waghuley, Co-ordinator, RGSTC's Scheme "Assistance for Science & Technology Application through University System", Development Section, Sant Gadge Baba Amravati University, Amravati. E-mail: costc@sgbau.ac.in**

The last date of submission of Pre-proposal is 19th Jan., 2021. .
Incomplete Pre-proposals will not be considered.
Kindly bring the same to the notice of all concern.

Yours Sincerely

Registrar

Sant Gadge Baba Amravati University,
Amravati

Sant Gadge Baba Amravati University, Amravati
Rajiv Gandhi Science & Technology Commission, Government of Maharashtra

Guidelines and formats for the scheme of "Assistance for S&T Applications Through University System."

Preamble: -

Government of Maharashtra has set up Rajiv Gandhi Science and Technology Commission as a Statutory Body under Maharashtra Act No. XV 2004 for advancement, propagation and promotion of applications of Science and Technology for the benefit of the people.

The objectives of the Commission are 1. To be an agent for change, development or advancement through inputs of Science and Technology; 2. To propagate application of science and technology through studies, an adaptation of technology, formulating projects, using the technology, field demonstration, imparting necessary training, publications and consultancy; and 3. To act as a catalyst or facilitator for the transfer of technology from laboratories and other research efforts to the application of science and technology on a larger scale.

The emphasis is clearly on applications of Science and Technology for socio-economic development. These activities need to be undertaken in a project mode to set clear targets and time frames for implementation. These activities are expected to be conducted through the existing institutions depending upon their expertise, capabilities, facilities and interest.

The Rajiv Gandhi, Science & Technology Commission, is already implementing a scheme "Assistance for S&T Applications Through University System" to support innovative applications of Science and Technology for socio-economic development.

Sant Gadge Baba Amravati University, Amravati has entered into MoU with "Rajiv Gandhi Science & Technology Commission" for the scheme "Assistance for S&T Applications Through University System".

The short term projects of localised nature need to be encouraged at a large number of institutions with the potential to participate in activities of S&T Applications. These institutions may include University Departments, Science, Engineering Colleges affiliated to the University. Such projects may be related to innovative technology applications linked to local resources/problems/skills/potential, specific studies/surveys, field trials of local innovations etc.

Eligibility:

Under the scheme, support will be provided to approved and full-time regular teachers in the University departments and affiliated Colleges. An individual teacher or a group of teachers may undertake a research project. In case a project is undertaken jointly, one of the teachers will function as a Principal Investigator (PI), and he/she will be responsible for all matters about the project. This support can be availed two years prior to superannuation. It would be the responsibility of the Principal Investigator and the Institution for total

accountability of the project. The applicant shall have adequate research facilities, resources etc. as per the requirement of the research project.

Broad areas of research:

- (i) S&T Studies/Surveys (ST)
- (ii) Location Specific Research & Technology Development (LSR)
- (iii) S&T Demonstration Projects (DP)
- (iv) Replication of Successful Models (RP)
- (v) Joint S&T Programmes on a specific theme (please specify) (JP)
- (vi) Awareness & Training on a particular topic (Please specify) (TRG)

Nature of projects for support under the S&T applications programme:

- (i) S&T Studies & Surveys: This includes support for carrying out S&T studies/surveys including techno-economic analysis, simulation modelling etc.; development of State databases on S&T resources; S&T policy issues; specific status reports on technology gaps etc. The activities under this head should lead to a particular plan of action for the generation of field projects.
- (ii) Location-specific research & technology development: Identifying/projecting S&T programmes or growth-oriented location-specific research and technology development.
- (iii) Pilot-scale demonstration projects: Pilot-scale demonstration projects, including field trials, based on technologies developed by Central S&T Agencies/Labs/Institutions etc. relevant to the needs of the State.
- (iv) Replication of successful models: Replication of projects/programmes based on successful experiences elsewhere.
- (v) Joint Programmes: To evolve and support specific joint programmes focusing on the multi-sectoral area-based approach to rural/regional development in cooperation with multiple State & Central Institutions, NGOs and State S&T Councils. These areas should be so identified that S & T intervention could significantly improve the existing socio-economic conditions.
- (vi) Awareness and Training: Awareness and Training on specific innovative technologies/packages requiring unique S&T inputs and also on specific S&T topics/themes.

General Terms and Conditions:

1. The proposal should establish linkage of S&T application to the overall development of the State.
2. The proposal may be formulated through consultative process among collaborations and potential users to improve viability. Actual participation of users with substantive contribution would be a welcome feature.
3. Project title should be precise and should not typically exceed 20 words within two lines.
4. The proposal should have specific, quantifiable objectives.
5. Scientific and technical details are spelt out.

6. The proposal should specify time targets for specific outputs/deliverables.
7. The institute is expected to have core facilities for the project.
8. The proposal should be based on innovative technologies/ideas. Routine programmes of extension based on proven technologies are not considered.
9. The training programmes should be on specific technologies/themes. Routine training programmes will not be entertained.
10. **Ten hardcopies** of Pre-proposal (as per Annexure I) duly signed by Investigator (s) and forwarded by the authority of institute/organisation (Principal/Director) along with brief biodata (2 pages) of PI & Co-PI (as per Annexure-II) shall be prepared for submission.
11. Pre-proposals should be prepared in brief (maximum 1000 words) on A-4 size paper (as per Annexure I).
12. On screening and short listing of Pre-proposals, the Principal Investigator of the shortlisted Pre-proposals will be communicated for submission of detailed proposal (as per Annexure-III).
13. Please do not skip reproduction of any section even if the answer is “nil” or given elsewhere.
14. The Principal Investigator assumes financial and other administrative responsibilities of the project. Funds would be released to the Head of the Institution undertaking the project.
15. Approval to the pre-proposal (the project idea) does not guarantee approval to the final proposal.
16. In case of a multi-institutional project, a formal agreement between the collaborating institutions/scientists should be submitted with the proposal.
17. International travel is not permissible under the project.
18. Financial support (Maximum Fund of Rs. 5 Lakhs) shall be given for (i) Hiring Services, (ii) Consumables (Chemicals and glassware) (iii) Travel and Field Work (iv) Contingency (v) Equipment (justification is needed).
19. The human resources recruited for the project should be paid as per the rules of the institute and guidelines of the Government if any.
20. The proposals are considered for approval/rejection by the Project Appraisal Committee (PAC). The Committee may seek expert opinion, wherever required.
21. Purchasing of laptop/desktop/printer is not allowed under this scheme.
22. Expected total duration of the project shall typically be less than 24 months. Short-term projects with precise applications would be preferred.

Documents/enclosures required with the detailed proposal:

- (a) Endorsement from the Head of the Institution (on letterhead)
- (b) Certificate from Investigator(s)
- (c) Details of the proposals (**15 copies**)
- (d) Names and addresses of Experts/Institutions who may be interested in the subject/outcome of the project (circulation list).

The mechanism to be followed by the University:

The University shall adopt the following review and monitoring mechanism.

1. Inviting Pre-Proposals (project ideas/concepts):The Universities would receive preproposals, in the prescribed format, from the institutions within 03 months from the announcement. A Committee of Peers (CoP) would assess these pre-proposals and select those pre-proposals(project ideas/concepts), which meet the objectives of the scheme and could be pursued further for consideration.

Composition of the Committee of Peers (CoP) would be as follows.

- | | |
|---|------------------|
| - Vice-Chancellor of the University | Chairman |
| - Dean of Science & Technology Faculty | Co-Chairman |
| - Two senior Professors of the University with track record in the area of industry/institute collaboration, nominated by Vice-Chancellor | Members |
| - One Principal of the Affiliated College with a track record of industry linkage, nominated by Vice-Chancellor | Member |
| - One Representative of RGSTC nominated by RGSTC | Member |
| - One outside expert from national institutions nominated by Vice-Chancellor | Member |
| - Four representatives of industry in the region nominated by Vice-Chancellor | Member |
| - Coordinator of the Scheme at the University | Member Secretary |

CoP to be reconstituted as per guidelines of RGSTC every four years.

All correspondence, including pre-proposals, may be sent to the Coordinator of the Scheme.

2. Inviting Detailed Project Proposals: The pre-proposals (the project ideas/concepts) approved by the Committee of Peers (CoP) would be pursued further by inviting Detailed Project Proposals in the prescribed format (Annexure-III) from the concerned institutions.

The Coordinator would take following steps on these proposals.

- i. Preliminary scrutiny of the proposals received.
- ii. Obtain comments of at least two domain experts on proposals.
- iii. Explore user linkage, including possible financial support.

Detailed Project Proposals processed by the Coordinator would be placed before the project Appraisal Committee (PAC) to be constituted for the scheme.

Composition of Project Appraisal Committee (PAC) Committee would be as follows.

- Vice-Chancellor of the University	Chairman
- Dean of Science & Technology Faculty	Co-Chairman
- One senior Professor of the University nominated by Vice-Chancellor	Member
- One Representative of RGSTC nominated by RGSTC	Member
- One outside expert from national institutions nominated by Vice-Chancellor	Member
- Coordinator of the Scheme at the University	Member Secretary

PAC to be reconstituted as per guidelines of RGSTC every four years.

The PAC will approve the detailed proposals. The University will communicate the PI of the approved project. The Coordinator would ensure the release of funds to the Institutions, in annual instalments based on monitoring report and budget utilisation certificate, for implementation of the approved projects.

3. Monitoring the Progress of Approved Projects: University would follow the following review mechanism for the projects supported under the scheme.

- i. Institution implementing the project should in consultation with Coordinator set up a small internal monitoring group (IMC) chaired by the head of the institution or a senior member with Principal Investigator and a representative from the potential user group as members. It would submit half-yearly, and annual progress reports duly vetted by the IMC to the

University along with Utilisation Certificate and Statement of Expenditure at the end of the Financial Year.

- ii. On completion, the institution should submit a detailed Project Completion Report giving the impact of the project.
- iii. The Project Appraisal Committee (PAC) would also work as a Review and Monitoring Committee on the projects supported under the scheme. It would take a periodic review of the progress of the projects.

An illustrative list of project/project areas for new proposals:

(This list for reference only, other topics/ project areas as per norms may be preferred/selected)

- Projects of innovative applications of Science and Technology
- Projects linked to common problems related to health, hygiene, nutrition, water, agriculture, agro-processing, shelter, energy, etc.
- Projects linked to specific local problems
- Projects linked to local industries and services needing technology up-gradation and/or Specific inputs.
- Projects linked to the generation of useful scientific data of the more comprehensive application
- Projects of identification and Packaging of grassroots innovations.

Illustrative projects:

Water:

- Testing of water from local sources leading to remedial measures
- Adaptation of simple and cost-effective technologies for drinking water.
- Wastewater recycling
- Water conservation, storage, recharging and optimum utilisation
- Restoration of natural water bodies

Nutrition:

- propagation of nutritional products of local relevance developed by research institutions
- Adaptation of solar dryers for the preservation of fruits, vegetables, seeds and fish
- Adaptation of various technologies for fish processing, backyard poultry, forest product processing, fish cultivation, etc.
- Introduction of new nutritional supplements and their impact assessment on a well identified target group.

Energy:

- Adaptation of innovative solar devices for cooking, agro-processing, food preservation, lighting, communication and education
- Adaptation of improved biogas plants

- Adaptation of heat-based refrigeration systems for storage of perishables
- Use of bio-mass gasifiers for different applications
- Studies for energy conservation in various sectors such as industries, agriculture, community and domestic usage and transport.

Agro-processing

- Adaptation of new technologies for grain drying, grain storage, fruit processing, by-products from agro wastes, etc.
- processing of edible oils, non-edible oils, pulses, edible scraps, forest produce, etc.
- Agro-based industries like jaggery, dairy products, animal feed, tissue culture, handmade paper, agricultural tools, etc.

Local Problems:

- Specific water contamination
- Water harvesting and recycling
- Soil quality and micronutrients deficiencies
- Malnourishment of children
- Upgradation of technologies in local industries like crafts, metalworking, leather processing, textiles, etc.

Local potentials:

- Technology intervention for value addition to specific local material resources for broader marketing. This may include first-stage processing of horticultural crops, forest produce, medicinal plants, minerals, fibre, fish, spices, agro wastes, etc.
- Use of special local skills and inputs of relevant technology inputs for economic activity. This may include fish cultivation, processing of forest produce, local cottage industries, sericulture, fibre products, building materials, etc.
- Technology inputs to introduce new trades and create new employment if logistically advantageous. For example, outsourced IT services, cultivation of medicinal plants and tissue culture.
- Information and Communication Technology (ICT) based technology products and applications that can lead to the empowerment of people at the grassroots.

Generating Databases:

- Generation of scientific databases on natural resources, technology status of traditional and small scale industries, the status of local skills, area-specific studies for technology planning, area-specific water quality studies, identification and conservation of local endangered species, a compilation of grassroots innovations, case studies on successful applications of new technologies and scientific practices, etc.

Technology Packaging for Field Applications:

- Packaging of technologies locally developed at institutions, ideas generated under the grass-root innovations, innovations under student's projects, etc. for applying in field conditions.
- Training packages on successful innovative technologies, locally developed
- Innovations with the potential for significant market impact.

PROFORMA FOR PREPROPOSAL

(to be submitted in ten copies)

1. Title of the project proposal
2. Broad area of research: ST / LSR / DP / RP / JP / TRG
3. Keywords (3-4) covering the scope of the project:
4. Name of the Institution where the work will be carried out.
5. Name(s) and address of the Principal Investigator and Co-investigators.
6. Need and Objective of the project. How is consistent with the mandate of RGS&TC? (100 words)
7. Methodology in Brief (bulleted). (200 words)
8. Duration of the project (preferably <24 months)
9. Approximate cost of the project
10. What is the scope of the project? What results and specific deliverables are expected? (200 words)
11. Why do you feel the necessity to undertake this work? (100 words)
12. Who will be benefited by the proposed work, and how? What is the scope for its replication/scale-up? (200 words)

(Duly signed by Investigators and forwarded through head of the Institute/Principal/Director)

PROFORMA FOR BIODATA OF INVESTIGATORS
(to be submitted in ten copies)

A. Name :

B. Date of Birth:

C. Institution:

D. Academic career:

Professional career:

E. Details of Award/prize/certificate etc. of the Investigator:

F. Publication (Numbers only):

Books, Research Paper, report

General articles

Patents/ Others (please specify)

G. List of completed and ongoing projects-

Sr.No.	Title of project	Duration From To	Total cost	Funding Agency
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H. Projects submitted

Sr.No.	Title of project	Name of Organisation	Status
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(Signature with Name)

Date:.....

Place.....

PROFORMA FOR PROPOSAL IN DETAIL
(to be submitted in fifteen copies)

A. IDENTIFICATION

1. Project title

.....

Key Words

.....

2. Broad Area

- (j) S&T Studies/Surveys. (ST)
- (ii) Location Specific Research & Technology Development. (LSR)
- (iii) S&T Demonstration Projects. (DP)
- (iv) Replication of Successful Models. (RP)
- (v) Joint S&T Programmes on a specific theme. (please specify) (JP)
- (vi) Awareness & Training on a particular topic. (Please specify) (TRG)

4. Duration: (number of months)

5. Total Cost:

6. Principal Investigator:

6.1 Name:

6.2 Department/college :

6.3 Designation:

6.4 Organisation/Institution Name:

6.5 Address (Including Telephone (official & residence), E-mail, Fax) :

7. Co-Investigator:

7.1 Name:

7.2 Designation:

7.3 Department/college :

7.4 Organisation/Inst. Name:

7.5 Address : (Including Telephone (official & residence), E-mail, Fax):

8. Capability of the Organisation:

(a) Major Facilities

(b) Expertise available

(c) List of ongoing and completed projects giving the following details.

Project Title	Start Date	Completion date	Project cost	Sponsoring organisation

B. TECHNICAL DETAILS

1. Background

- 1.1 Description of problem
- 1.2 Review of work already done
- 1.3 Rational for taking up the project
- 1.4 Relevance to State priorities

2. Challenge and Constraints

Please identify the strengths and weaknesses of the implementers vis-à-vis current project in terms of technical expertise, team building, past record etc. Also, list the perceived opportunities and threats and describe how the PI/Organisation proposes to capitalise on them or avert them.

3. Description of Proposal

- 3.1 Objectives of the project. (Brief and to the point)
- 3.2 Preliminary Investigations done by the organisation (if any)
- 3.3 S&T component in the project.
- 3.4 Linkage with S&T Institutions / NGOs / resource persons / R&D organization / The industry for technical backup.
- 3.5 Other organisations working in this area.
- 3.6 Methodology detailing stepwise activities and sub-activities.

4. Work Plan

Phase-wise plan of action up to post-project activities detailing time schedule. Milestones may be indicated. PERT/GANTT chart may be attached.

5. Output of the Project

The attempt may be made to quantify output in measurable parameters.

6. Likely Impact (Please attempt to quantify)

7. Parameters for monitoring effectiveness of the project

8. Suggested Post Project Activities

C. BUDGET ESTIMATES: SUMMARY

(In Rupees)

Item	BUDGET		
	1st Year	2nd Year	Total

A. Recurring			
1. Consumables			
2. Travel			
3. Other Costs			

B. Non-Recurring			
Permanent Equipment			

Grand Total (A+B)			

BUDGET FOR PERMANENT EQUIPMENT

(In Rupees)

Sr.No.	Name of equipment *	Estimates cost
1.		
2.		
<hr/>		
Total		

* Please give justification for each equipment, recurring and non-recurring.

**ENDORSEMENT FROM THE HEAD OF INSTITUTION
(TO BE GIVEN ON LETTERHEAD)**

PROJECT TITLE:-----

1. Certified that the institute welcomes the participation of Dr./Shri/Smt/Kmas the Principal Investigator and Dr./Shri/Smt./Km..... as the Co-Investigator for the project and that in the unforeseen discontinuance by the Principal Investigator, the Co-Investigator will assume the responsibility of the fruitful completion of the project (with due intimation to RGS&TC).

2. Certified that the equipment, other basic facilities and such other administrative facilities as per terms and conditions of the grant, will be extended to Investigator (s) throughout the duration of the project.

3. Institute assumes to undertake the financial and other management responsibilities of the project.

Name and Signature of Head of Institution

Date:.....

Place:.....

REMARKS

Regarding research proposals emanating from scientific institutions/laboratories under various scientific departments, the head of the institution is required to provide a justification indicating clearly whether the research proposal falls in line with the regular research activities of the institution or not and if not, the scientific reasons which merit its consideration by Rajiv Gandhi Science & Technology Commission.

CERTIFICATE FROM THE INVESTIGATOR

PROJECT TITLE:-----

1. I/We agree to abide by the terms and conditions of the RGS&TC grant.
2. I/We did not submit this or a similar project proposal elsewhere for financial support.
3. I/We have explored and ensured that equipment and necessary facilities will be available as and when required for the project. I/We shall not need financial support under this project, for procurement of these items.
4. I/We undertake that spare time on permanent equipment will be made available to other users.
5. I/We enclosed the following materials.

ITEMS

NUMBER OF COPIES

(a) Endorsement from the Head of the institution (on letterhead)

One

(b) Details of the proposals

(15 copies)

c) Any other (Please specify)

Signature with Name of Investigator

Date:.....

Place