

NATIONAL SCIENCE FOUNDATION

COMPETITIVE RESEARCH GRANT APPLICATION - 2022

The NSF supports R & D activities of Sri Lankan scientists in all fields of Science & Technology, the outputs and outcomes of which will ultimately benefit the Sri Lankan Society. Accordingly, the Competitive Research Grant Scheme facilitates and encourages scientists to carry out research of high standard, to strengthen the research base and promote R & D activities directed towards the socioeconomic development of the country.

CHECK LIST		
<input type="checkbox"/>	Completed application form	<input type="checkbox"/>
<input type="checkbox"/>	Concurrence of the Institution/s which facilitates the research (Item No. 15)	<input type="checkbox"/>
<input type="checkbox"/>	Curriculum vitae of all Investigators (One copy of each investigator)	<input type="checkbox"/>
<input type="checkbox"/>	Research grants record (Annex I)	<input type="checkbox"/>
<input type="checkbox"/>	Information of Collaborator/s; if any (Annex III)	<input type="checkbox"/>
<input type="checkbox"/>	Gantt chart	<input type="checkbox"/>

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Colombo 07
Sri Lanka
Tel: +94 112696771
Fax: +94112694754
www.nsf.gov.lk

LATE, INCOMPLETE AND INACCURATE APPLICATIONS WILL NOT BE PROCESSED

SECTION A

Prototype	<input type="checkbox"/>	Guideline	<input type="checkbox"/>
Patent	<input type="checkbox"/>	Policy	<input type="checkbox"/>
Technology	<input type="checkbox"/>	Other (please specify)	<input type="checkbox"/>
.....			

b) State potential commercial applications of research outputs, if any

c) Identify potential stakeholders /industries

d) Research Outcomes
Impact of research outcomes relevant to the following on national development.
Please write in point form with timelines; lag period envisaged with reasons.

d.1 Scientific Impact

d.2 Societal Impact

d.3 Economic Impact

4. Project Period

<input type="checkbox"/> 1 Year	<input type="checkbox"/> 2 Years	<input type="checkbox"/> 3 Years
<input type="checkbox"/> 1 Year 6 months	<input type="checkbox"/> 2 Years 6 months	

5. Total Budget
For Principal Investigators who have not received any Research Grants before (NSF or other funding agency), the total budget should not exceed Rs. 2 Million excluding allocations for Research Personnel.

6. Investigators
Annex CVs' and list of publications of all Investigators during the last 10 years. Those who wish to read for postgraduate degrees under the proposed project are not eligible to be Principal Investigator/ Co-Investigators

6.1 Principal Investigator

Principal Investigator should have a postgraduate research degree (PhD, MPhil) and publications/patents in the relevant area. Applicants with MSc, MD or MS qualifications should have minimum of one year research component in the course and publications in the relevant area.

Name and Designation:	Mailing address :
Institution:	Telephone Office :
Highest academic qualification obtained:	Mobile :
Date of award:	Fax :
Area of expertise related to the proposed project:	E-mail :
	NIC No :
	STMIS Reg. No :

Planned leave abroad (Study Leave, Sabbatical Leave, etc.) / Retirement during the project period:

If the PI is planning to take leave (> 2 weeks) during the project period, state the responsible person for the project:

6.2 Co-Investigator/s

Co-Investigators should have postgraduate qualifications and research experience supported with publications/patents. Any other member of the research group who does not meet these criteria and expatriates/foreign scientists could be listed only as Collaborators.

Co-Investigator – 1	
Name and Designation:	Mailing address :
Institution:	Telephone Office :
Highest academic qualification obtained:	Mobile :
Date of award:	Fax :
Area of expertise related to the proposed project:	E-mail :
	NIC No :
	STMIS Reg. No :

Planned leave abroad (Study Leave, Sabbatical Leave, etc.) / Retirement during the project period:

Co-Investigator – 2	
Name and Designation:	Mailing address :
Institution:	Telephone Office :
Highest academic qualification obtained:	Mobile :
Date of award:	Fax :
Area of expertise related to the proposed project:	E-mail :
	NIC No :
	STMIS Reg. No :

Planned leave abroad (Study Leave, Sabbatical Leave, etc.) / Retirement during the project period :

Co-Investigator – 3	
Name and Designation:	Mailing address :
Institution:	Telephone Office :
Highest academic qualification obtained:	Mobile :

<p>Date of award:</p> <p>Area of expertise related to the proposed project:</p>	<p>Fax : E-mail : NIC No : STMIS Reg. No :</p>
<p>Planned leave abroad (Study Leave, Sabbatical Leave, etc.) / Retirement during the project period :</p>	
<p>Co-Investigator – 4 Name and Designation:</p> <p>Institution:</p> <p>Highest academic qualification obtained:</p> <p>Date of award:</p> <p>Area of expertise related to the proposed project:</p>	<p>Mailing address :</p> <p>Telephone Office : Mobile :</p> <p>Fax : E-mail : NIC No : STMIS Reg. No :</p>
<p>Planned leave abroad (Study Leave, Sabbatical Leave, etc.) / Retirement during the project period :</p>	
<p>Co-Investigator – 5 Name and Designation:</p> <p>Institution:</p> <p>Highest academic qualification obtained:</p> <p>Date of award:</p> <p>Area of expertise related to the proposed project:</p>	<p>Mailing address :</p> <p>Telephone Office : Mobile :</p> <p>Fax : E-mail : NIC No : STMIS Reg. No :</p>
<p>Planned leave abroad (Study Leave, Sabbatical Leave, etc.) / Retirement during the project period :</p>	
<p>6.3 Collaborator/s <i>Letters of Consent should be provided – Annex III</i></p>	
<p>Collaborator – 1 Name and Designation:</p> <p>Institution:</p> <p>The contribution expected to be provided for the research project:</p>	<p>Mailing address :</p> <p>Telephone : Fax : E-mail : STMIS Reg. No :</p>
<p>Collaborator – 2 Name and Designation:</p>	<p>Mailing address :</p>

<p>Institution:</p> <p>The contribution expected to be provided for the research project:</p>	<p>Telephone : Fax : E-mail : STMIS Reg. No :</p>
<p>Collaborator – 3 Name and Designation:</p> <p>Institution:</p> <p>The contribution expected to be provided for the research project:</p>	<p>Mailing address :</p> <p>Telephone : Fax : E-mail : STMIS Reg. No :</p>
<p>Collaborator – 4 Name and Designation:</p> <p>Institution:</p> <p>The contribution expected to be provided for the research project:</p>	<p>Mailing address :</p> <p>Telephone : Fax : E-mail : STMIS Reg. No :</p>
<p>7. Institution/s where the research is to be performed</p>	
<p>7.1 Principal Institution</p>	
<p>7.2 Other Institution/s</p>	

SECTION B

* Names and affiliations **should not be mentioned** in section B.

Title of the project :

Duration :

1. Summary

- (a) Explain briefly the research problem, research approach and expected outputs.
Not exceeding one A4 page, font type Times New Roman, size 11, single space.

(b) Give 3 – 5 keywords for the proposed project:

2. Research Problem

Describe Research problem/s, analysis of the problem/s & rationale for the research question

**3. Comprehensive literature review (local and international including recent literature)
AND the complete list of references in the relevant area.**

Do not highlight or underline names of investigators in the reference list (Attach additional sheets if necessary)

3.1 International

3.2 Local

4. Originality & innovativeness of the proposed work**5. General and specific objectives of the proposed work**

5.1 General Objective

5.2 Specific Objectives

6. Methodology
6.1 Describe the Methodology <i>(Attach additional sheets if necessary)</i>
6.2 Describe Experimental design where applicable <i>Please complete relevant sections</i>
6.2.1 Data/sample collection
6.2.2 Study site
6.2.3 Study group and controls
6.2.4 Validation and quality control of methods
6.2.5 Cost effectiveness of proposed methodology
6.3 Describe the method of data analysis
7. Feasibility
7.1 Human resource requirement
7.1.1 Principal Investigator <i>Name and affiliation should not be mentioned.</i> Describe knowledge and research experience in the area related to the project work <i>(Please <u>do not</u> include publications; word limit -100 words)</i>
7.1.2 Co-Investigator - 1 <i>Name and affiliation should not be mentioned.</i> Describe knowledge and research experience in the area related to the project work <i>(Please <u>do not</u> include publications; word limit -100 words)</i>

7.1.3 Co-Investigator - 2

Name and affiliation ***should not be mentioned.***

Describe knowledge and research experience in the area related to the project work (*Please do not include publications; word limit -100 words*)

7.1.4 Co-Investigator - 3

Name and affiliation ***should not be mentioned.***

Describe knowledge and research experience in the area related to the project work (*Please do not include publications; word limit -100 words*)

7.2 Percentage of time the PI and CoIs could contribute to this project

	10%	20%	30%	40%	Other	% of time spent on other projects	% of time spent on administration
PI							
CoI - 1							
CoI - 2							
CoI - 3							

7.3 Work plan

Please attach the monthly Gantt Chart to cover the proposed study, as per the format below.

Object ives	Activiti es	Timeline (Gantt Chart)																								Key Performance Indicators (KPI)
		Year 1												Year 2												
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Format Only																										

8. Authorization

<i>(Ethical clearance/necessary permission should be submitted along with the application or within one month of the deadline for submission of applications)</i>	
8.1 Ethical consideration	
Relevance to the project	Relevant <input type="checkbox"/> Not relevant <input type="checkbox"/>
If relevant, Ethical clearance obtained?	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If Yes, attach a copy of ERC letter</i>
If No, applied for Ethical clearance?	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If yes, attach proof</i>
8.2 Permission from relevant authorities (Dept. of Wildlife, Forest Department etc.)	
Relevance to the project	Relevant <input type="checkbox"/> Not relevant <input type="checkbox"/>
If relevant, necessary permission obtained?	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If Yes, attach a copy of the permission letter</i>
If No, applied for necessary permission?	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If yes, attach proof</i>
8.3 Material Transfer Agreement	
Relevance to the project	Relevant <input type="checkbox"/> Not relevant <input type="checkbox"/>
If relevant, Agreement signed?	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If Yes, attach a copy of the signed Agreement</i>
If No, arrangements made to sign?	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If yes, attach proof</i>
9. Indicate the human, genetic and environmental risks related to the project and how they are being addressed	
10. Budget	
10.1 Financial support	
Is the proposed project currently being funded by any other source? Yes <input type="checkbox"/> No <input type="checkbox"/>	
If <u>No</u> , have you applied/planning to apply for funding from any other source for the proposed research? Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If Yes, please state when a decision is expected.</i>	
If <u>Yes</u> to above question/s, please give details and justify the request for co-funding from the NSF.	
10.2 Summary of Budget <i>Funds should be requested <u>only for essential items</u> with adequate justification. Refer Annex IV for rates of payments for Personnel and Travel & Subsistence votes (Note: Equipment will not be provided under this scheme for this call considering the current financial constraints)</i>	

(1) Personnel	1 st Year	2 nd Year	3 rd Year	Total
(i) Research Student*				
(ii) Technical Assistant				
(iii) Labour/Other				
Sub Total (Personnel)				
(2) Consumables				
(3) Sample analysis (if outsourced)				
(4) Statistical analysis				
(5) Postgraduate registration fees				
(6) Travel & Subsistence (for field visits only)				
(7) Miscellaneous				
GRAND TOTAL ***				

* Full-time Research Students registering for a Postgraduate Degree, can be allocated only for Principal Investigators with two years of postdoctoral research experience.

** For full time Research Students, not registering for postgraduate degree funds will be provided only up to two years

*** For Principal Investigators who have not received any Research Grants before (NSF or other funding sources), the duration of the project should not exceed two years and the total budget should not exceed Rs 2 Million, excluding allocations for Research Personnel.

Applicants from the Non-State Sector, please refer the guidelines for the Non-State Sector applicants.

11. Budget justification

11.1 Personnel

Requests for personnel for the proposed project should not be made unless they are absolutely necessary. The Investigators should indicate and justify the type of personnel required.

(i) Research Student*

a. Full time for years OR months

b. Detailed description of work to be carried out by the Research Student:-

c. Detailed Research Student will be registering for a postgraduate degree – Yes No

If Yes, PhD MPhil

(ii) Technical Assistant

a. Full time/part time for years OR months

b. Detailed description of work to be carried out by the Technical Assistant:-

(iii) Labourers

- a. No. of labourers required.....
- b. Time period days/months per labourer
- c. Detailed description of work to be performed:-

11.3 Consumables

Attach the list and give a complete description of type (eg: Chemicals, glassware specific to the project), quantity and estimated cost with justification. Avoid over-estimation and include only the necessary consumables for this project.

11.4 Sample analysis (if outsourced)

Year	Place of analysis	Type of analysis	No. of Samples	Estimated cost
1 st Year				
2 nd Year				
3 rd Year				

11.5 Statistical analysis

Justification for requesting funds

11.6 Breakdown of Postgraduate registration fees during the project period (*Refundable deposits will not be reimbursed*)

1 st Year																													
2 nd Year																													
3 rd Year																													
11.7 Travel & Subsistence <i>Funds can be requested <u>only for field visits related to the project</u>. As far as possible the Investigator should combine field work under the project with his/her work in the Institution. What should be requested for is additional travelling that cannot be carried out in the course of the Investigator's other duties.</i> <i>Give a <u>detailed breakdown for each year</u> with justifications of the cost figures given in summary budget. Indicate no. of field visits, places to be visited and any other relevant details.</i>																													
1 st Year <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th colspan="5" style="text-align: center;">Travel</th> </tr> <tr> <th style="width: 20%;">Purpose of visits</th> <th style="width: 25%;">Places to be visited</th> <th style="width: 20%;">Distance (Km)</th> <th style="width: 20%;">No. of visits</th> <th style="width: 15%;">Total cost for transport</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p style="margin-top: 5px;">Subsistence for above field visits (please give calculation):</p>					Travel					Purpose of visits	Places to be visited	Distance (Km)	No. of visits	Total cost for transport															
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Travel																													
Purpose of visits	Places to be visited	Distance (Km)	No. of visits	Total cost for transport																									

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Subsistence for above field visits (please give calculation):

11.8 Miscellaneous

*Give complete breakdown with estimated cost.
The funds for miscellaneous, should not exceed 10% of the total cost of the project. Funds for administrative cost and contingencies/unforeseen expenses cannot be considered.*

Items	Estimated Cost			
	1 st Year	2 nd Year	3 rd Year	Total

11.9 Facilities available at the Institutions of the Investigators for the research project

Major equipment and other facilities available at the institution

12. To which Sustainable Development Goal/s (SDGs) does your research project relate to?

<http://www.statistics.gov.lk/sdg/>

13. How do you propose to protect and exploit Intellectual Property (IP)?

(Indicate if applicable)

Blank space for additional information or notes.

14. Signatures of Investigators (to be printed, signed, scanned and sent)

<p>(a) (Principal Investigator)</p> <p>(b) (Co-Investigator -1)</p> <p>(c) (Co-Investigator -2)</p> <p>(d) (Co-Investigator -3)</p>	<p>..... Date</p>
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15. Recommendations (to be printed, get it signed and send the scanned copy)

When forwarding the application, the Signatories are expected to consider the following aspects:

- no duplication in funding
- the applicant will be able to devote sufficient time to carry-out the project.

(If the applicants are from different Institutions, recommendations from each Institution should be submitted)

15.1 For Principal Investigators from Universities

I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.9). The application is recommended.

.....
Name and Signature of Head of the Department

.....
Date

I recommend and forward the application.

.....
Signature of Dean of the Faculty

.....
Date

I recommend and forward the application.

.....
Signature of the Vice Chancellor

.....
Date

15.2 For Principal Investigators from Institutions/Organizations (Other than Universities)

When forwarding the application the Signatories are expected to consider the following aspects:

- *no duplication in funding*
- *the applicant will be able to devote sufficient time to carry-out the project.*

(If the applicants are from different Institutions, recommendations from each Institution should be submitted)

I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.9). The application is recommended and forwarded.

.....
Signature of Head of Institution/Organization

.....
Date

For Co-Investigators (from universities/other institutions)

If there are more than three Co-Investigators, please insert additional recommendations.

15.3 For Co-Investigator I

I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.9). The application is recommended.

.....
Signature of Head of Department/Institution

.....
Date

For Co-Investigator II

I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.9). The application is recommended.

.....
Signature of Head of Department/Institution

.....
Date

For Co-Investigator III

I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.9). The application is recommended.

..... Signature of Head of Department/Institution Date
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Research Grants Record (ongoing and completed) of the Principal Investigator during the last 05 years (2017-2021) (NSF and other funding sources)							
Grant No	Contribution (Principal Investigator/ Co- Investigator)	Approved duration of the Grant (Dates)	Title of the Project	Source of support	Total allocation	Status [Ongoing/Completed/ Terminated/Cancelled]	Postgraduate degrees/No. of Publications/ No. of Communications

For Industry/s Collaborating with this Project

(To be filled by the Industry Partner)

Name of the Company/s Address Contact researcher/person (Please attach a CV)	
Contribution of funds towards the project	
Vote/ Item	Amount (Rs.)
Facilities that can be made available for the research project	
Office Space: Equipment: (Type) Other (Please specify)	Laboratory/hrs per week
Any other comments	

.....
Date

.....
Name and Signature of the Industry Partner

Consent to be a Collaborator of a Research Project

(To be signed by the Collaborator/s)

**Director General
National Science Foundation**

Research Project on -

This is to convey my willingness to work as a collaborator of the research project referred to above, supporting and contributing to the realization of the project objectives stated in the grant application.

I understand the support and assistance to be extended to the research team by providing necessary facilities and/or expert opinion and guidance to carry-out the project successfully.

Yours sincerely,

.....
(Signature)

Name of the Collaborator :

Prevailing Rates of Payments for Estimation of the Budget

1. Monthly allowance of Research Students

Registered for a PhD or MPhil	-	Rs. 60,000/=
Not registered for a postgraduate research degree	-	Rs. 50,000/=

2. Monthly allowance of Technical Assistants

With G.C.E. (A/L) or / G.C.E. (O/L) Qualifications	-	Rs. 25,000/=
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3. Subsistence rates – Have to be paid according to Government Circulars –
Management Service Circular No. 34

Grantee - Maximum	-	Rs. 500/= (according to the salary)
Research Students allowance	-	Rs. 500/=
Technical Assistants allowance	-	Rs. 400/=

4. Travel – Rs. 25/- per Km (NSF rate)

5. Labourers - Rs. 739.53 + C.O.L Rs. 260.00 per day + Interim Allowance Rs. 76.13 - As per DMS 02/2016 Circular

Guidelines for Applicants – NSF Competitive Research Grants

1. Applicants for the Research Grants Scheme must be citizens of and residing in Sri Lanka registered with the STMIS database of the NSF.
2. The Principal Investigator should have a permanent position. If on contract, the contract period should cover the duration of the project.
3. Those who wish to read for postgraduate degrees under the proposed project are not eligible to be Principal Investigator/Co-Investigators
4. If the Principal Investigator is not from a University and the Research Student is registering for a postgraduate degree, a Co-Investigator from the University where the Research Student is registering should be included to the Research Team.
5. A scientist is eligible to hold only 02 ongoing grants as the Principal Investigator and Co-Investigator. Applicants who have 02 ongoing grants should not apply for a new grant, until the Final Report of the previous grant is submitted.
6. The proposed research project should necessarily be an original investigation.
7. A comprehensive literature review should be done and all details should be provided together with the list of references.
8. Maximum project period should not exceed 03 (three) years. However, for Principal Investigators who have not received any Research Grants before (NSF or other funding sources), the duration of the project should not exceed two years and the total budget should not exceed Rs 2 Million, excluding allocations for Research Personnel.
9. The budget should be reasonable and justified in detail. Equipment will not be provided for this Call considering current financial constraints.
10. A detailed time-based work plan (Gantt chart) should be included stating the proposed activities, time frames and key performance indicators clearly.
11. Research proposals which address inter-disciplinary work, require to have expertise from each of the relevant disciplines, and be supported with letters of consent from such collaborators, if any (Annex III).
12. Proposals for research projects between industry and university/state sector research organizations will be considered based on the degree to which the proposal addresses problems of the industry. The industry concerned should contribute at least 25% of the total cost of the project with a lower limit of Rs. 500,000/=.
13. Projects that require ethical clearance/ necessary permissions should submit the certificate within one month from the deadline for submission of the applications to the NSF. The fee for ethical clearance, if any, will be reimbursed if the application is approved for funding.
14. Only one grant will be awarded to an Investigator as the Principal Investigator at this call for applications.
15. Applicants may indicate persons, that they think should not review the project for reasons of conflict, for consideration by NSF.
16. Soft copy of the application should be sent in both MS Word and PDF formats.
17. Funding will be decided on the merits of the proposal and competitively through the peer-review procedures in use at the NSF.
18. Late, Incomplete and Inaccurate applications **WILL NOT** be considered.
19. Please note that the decision of the NSF is final.

Guidelines for Non-State Sector

In addition to the above,

- (a) The research should have a significant contribution to national socioeconomic development.
- (b) The NSF will bear 50% - 70% of funds under each vote of the project, whereas the balance 30% - 50% to be borne by the applicants.
- (c) The grantee/s should provide a bank guarantee of 10% of the total project cost, effective for the entire grant period before NSF release funds required for the project.

An electronic version of the completed application (MS Word and PDF formats) should be e-mailed to rgrants@nsf.gov.lk on or before 11.59 p.m. on 29th April 2022.

For more details on the Competitive Research Grant Scheme please refer NSF website (www.nsf.gov.lk)