



**National Foundation of Science and Advanced Technologies (NFSAT)
National Academy of Sciences of the Republic of Armenia (NAS RA)
U.S. Civilian Research & Development Foundation (CRDF)**

**Graduate Research Assistance and Support Program (GRASP-III)
Program Announcement**

I. Introduction

On a competitive basis the National Foundation of Science and Advanced Technologies (NFSAT), the National Academy of Sciences of the Republic of Armenia (NAS RA) and the U.S. Civilian Research & Development Foundation (CRDF) will provide 12 months of support to graduate students (aspirants pursuing the “Kandidat” degree) of affiliated scientific and research institutions of NAS RA who would receive awards under this competition in the fields of physical, natural, and technical sciences. These grants will be up to \$5,000 each (about 1.8 million AMD), including \$2,000 for individual financial support (for 11 months) and \$3,000 for research and travel expenses.

The goal of this program is to provide early-career Armenian investigators (aspirants) to excel in research. The program will increase:

- a) the ability of young researchers to concentrate on full-time graduate study and research;
- b) the researchers’ ability to perform high-quality research in natural, basic and applied sciences; and
- c) opportunities for young researchers to become more integrated with the international scientific community by participating in international conferences and meetings.

The grant award will be based on independent peer-reviewed assessments of each project and will be determined by the scientific merit of each application.

The deadline for Graduate Research Assistance and Support Program GRASP proposals to be submitted is 18:00 on 30 September 2010. The English Language Proposals should be submitted to NFSAT, NAS RA and CRDF (see submission instruction in section V below). The Armenian Language Proposals should be submitted to both NFSAT and NAS RA (see submission instruction in section V of Armenian version of this document).

The competition results are expected to be announced on the 1st of December.

All decisions of NFSAT, NAS RA and CRDF are final.

II. Program Guidelines

NFSAT, NAS RA and CRDF plan to support up to 20 grants in the natural, basic and applied sciences.

The maximum grant size for this competition is \$5,000 (about 1.8 million AMD) for a 12 month period. Up to \$2,000 (maximum 0.75 million AMD) may be allocated for 11-months of individual financial support (full-time level of effort) for the applicant, and up to \$3,000 (about 1.05 million AMD) may be allocated for research expenses and the cost related to a conference attendance. The NFSAT, NAS RA and CRDF strongly encourage applicants to participate in international scientific conferences and meetings during the grant period.

III. Eligibility

Each proposal must meet all of the following eligibility criteria:

1. The applicant must be a citizen or a permanent resident of Armenia who will reside in Armenia during the course of the grant period;
2. The applicant must have a graduate student status (an aspirant pursuing the “Kandidat” degree) of affiliated scientific and research institutions of NAS RA;
3. Neither NFSAT nor CRDF employees’ immediate family members are eligible to apply. Immediate family members of NAS RA may apply, but their family members within NAS RA must not participate in a peer review or decision process of this competition. In addition, for those applicants who have family members working in the NAS RA, reviews and panel rankings from the NAS RA will not be considered for making funding recommendations (only reviews and panel rankings from CRDF and NFSAT will be taken into consideration).
4. The applicant must be involved in research work full-time within a framework of his/her post-graduate study.
5. All projects must be oriented toward civilian, non-military objectives and must be carried out in a civilian research environment.
6. Projects may include both basic and applied science and engineering activities, including technological development as a part of innovation process leading to commercial products.
7. Applicants who have active awards from NFSAT’s similar programs are not eligible to apply.
8. An individual may submit only one application to this competition.
9. Each proposal will be evaluated independently and therefore its success will be evaluated independently and not as a part of other proposals submitted to this (or another) program.
10. Each application must include separate letters of statement and guarantee, which must be originally signed by:
 - a) Applicant: stating that he/she is a full-time graduate student involved in the research work
 - b) Authorized person of a research organization and scientific supervisor(s) of the applicant: guaranteeing that the applicant is involved full-time in research work under his/her graduate research study at their institution and indicating what kind of support the institution will render for the proposed research project.
11. There is no limitation for the number of applications submitted from each affiliated scientific and research organizations of NAS RA.
12. NFSAT and CRDF reserve the right to restrict the participation of any individual or institution in its programs.

IV. Priorities

Among proposals of equal technical merit, NFSAT, NAS RA and CRDF will give priority to those proposals that contain one or more of the following:

- Innovative research methods for solving scientific tasks and problems, especially innovations that are shown to be new for Armenia;
- Research topics aimed at solving actual scientific-technological problems in Armenia;
- Research topics with a high likelihood of resulting in publication in a prominent international scientific journal and presentation at international scientific conferences and meetings;
- Applicants who are second or third year graduate students and have scientific publications;
- Female applicants;

- Applicants from eligible institutions from outside of Yerevan;
- Applicants who have not been involved in any grant awarded by NFSAT, CRDF or any other international funding agency by the time of submitting their application.

V. Proposal Submission Instructions.

All English language proposals should be submitted to all NFSAT, NAS RA and CRDF according to the methods outlined below. Any proposal that is not submitted in the manner described below may be deemed ineligible. Complete applications must be submitted no later than 18:00 O'clock Yerevan time on the 30th of September, 2010.

- 1) NFSAT: All applicants must submit their proposals to NFSAT to the following e-mail addresses listed below. Applications have to have the following documentations:
 - One original hardcopy and one electronic copy in Armenian.
 - One original hardcopy and one electronic copy in English.
 - The applicant must submit the original application/proposal in a hardcopy and a letter of guarantee along with the hard copies of the proposal.
 - The electronic copies of the proposal must be in Microsoft Word or PDF format. All electronic copies of a proposal must be submitted as ONE electronic file.
 - Proposals in .zip format that contain multiple documents will not be accepted.
 - NFSAT will not accept fax submissions.
 - All applications should be typed with 1.5-spacing, point 12-size in standard fonts (“Sylfaen” for Armenian and “Times New Roman” for English), with margins of 2.5 cm (one inch) at the sides and on the top and bottom. Page numbers have to show in the upper right corner.

Hard-copy submission:

National Foundation of Science and Advanced Technologies (NFSAT)
26, Azatutyan Ave., 0014, Yerevan, Republic of Armenia

e-mail submission:

grasp-nas@nfsat.am

- 2) CRDF: Completed applications to CRDF have to include the following documentations:
 - One electronic copy in English, sent to Armenia@crdf.org
 - Electronic copies of the proposal must be in Microsoft Word or PDF format. All electronic copies of a proposal must be submitted as ONE electronic file.
 - Proposals in .zip format that contain multiple documents will not be accepted.
 - CRDF will not accept fax submissions.
 - All applications should be typed with 1.5-spacing, point 12-size in standard fonts (“Times New Roman”), with margins of 2.5 cm (one inch) at the sides and on the top and bottom. Page numbers have to show in the upper right corner.
- 3) NAS RA: All applicants must submit their proposals to NAS RA to the e-mail addresses listed below. Applications have to have the following documentation:
 - One original hardcopy and one electronic copy in Armenian.
 - One original hardcopy and one electronic copy in English.
 - The applicant must submit the original hardcopies of his/her statement and a letter of guarantee along with the hard copies of the proposal.
 - The electronic copies of the proposal must be in Microsoft Word or PDF format. All electronic copies of proposals must be submitted as ONE electronic file.
 - Proposals in .zip format that contain multiple documents will not be accepted.
 - NAS RA will not accept fax submissions.

- All applications should be typed with 1.5-spacing, point 12-size in standard fonts (“Sylfaen” for Armenian and “Times New Roman” for English), with margins of 2.5 cm (one inch) at the sides and on the top and bottom. Page numbers have to show in the upper right corner.

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Hard-copy submission:

National Academy of Sciences of the Republic of Armenia

24, Marshall Baghramyan Ave., 0019, Yerevan, Republic of Armenia

e-mail submission:

SD_Fund@sci.am

For questions about the proposal submission process, or for further information about this program, please contact NFSAT office:

Tel: 28-81-92

info@nfsat.am

Please Note:

- All proposals must be complete when submitted. Any proposal not containing all required documents as indicated in this program announcement may be ruled ineligible.
- No modifications may be made to any proposal once it has been submitted.
- If circumstances have changed significantly since the time of proposal submission that the project can no longer be carried out as proposed, the applicant must notify NFSAT, CRDF, and NAS RA in writing and indicate that they withdraw the proposal from the competition. If NFSAT, CRDF, and NAS RA learn of such significant changes in circumstances, they may, based on their mutual agreement, declare a proposal ineligible.
- NFSAT, CRDF, and NAS RA reserve the right to request additional information from applicants if necessary.
- All applicants will be notified by e-mail of the eligibility-screening outcome within one month since the submission of an application deadline. Applicants will be notified that their proposal is eligible for a technical review.

NFSAT plans to organize consultations for interested potential applicants every Friday during the period between program announcement and the application deadline. On September 16, Friday at 16:00 pm the NFSAT will organize a seminar for potential applicants to describe all critical points in proposal writing. During this seminar, participants will receive training on how to write a technical proposal, how to follow proposal guidelines and how to develop budget.

VI. Application Guidelines

Each proposal must include all of the elements listed below. Only applications that include all required information will be considered.

IMPORTANT NOTICE: No proposal may exceed 20 pages in length, including all forms. Any proposal exceeding 20 pages in length will be disqualified.

1. **Cover Sheet (Form A).** The cover sheet should include basic information about the proposal, Applicant, Armenian Institution Director and Applicant’s official scientific Supervisor.

2. **Abstract.** In one concise paragraph, summarize all aspects of the project, with special attention to its objectives, methods, and potential results.
3. **Project Narrative** (5-7 pages maximum, including any graphs, diagrams, photos or references cited):
 - Description of scientific research to be undertaken during the grant period: its importance, its relevance to the applicant's present research, its expected results and its possible contribution to solving actual scientific-technological problems.
 - The approach, objectives, milestones, and measurements of success that will be used;
 - The anticipated results of the project and how they relate to NFSAT, NAS RA, and CRDF evaluation criteria (a response to each of the evaluation criteria) listed below in Section VIII;
 - Equipment and materials to be utilized in the project, with special attention to justifying requests for any equipment and materials for which NFSAT support is requested;
 - Applicant's and Advisor's Curriculum Vitae (CV). The proposal must contain two curriculum vitae (one to two pages; one for each applicant and one for an adviser). Each CV should give the name, title, educational background, current and previous institutional affiliations with dates, areas of expertise, and a list of relevant publications in each of the following categories: peer-reviewed research journal articles in English, peer-reviewed research journal articles in a language other than English, total number of conference abstracts published in conference proceedings, and full citations of the five peer-reviewed research journal articles (in any language) most relevant to the proposal. It is understood that the applicant may not have publications in any or all of the categories mentioned above.
4. **Budget (Form B).** A budget must be submitted using the information provided in Form B of this announcement. Form B must be filled out completely. Applicants should submit one budget Form B for the entire award period. The maximum award amount is US \$5,000 for each successful candidate.
5. **Budget Narrative.** A separate sheet explaining all budget items must follow the budget forms. This sheet should be clearly marked "Budget Narrative." It is particularly important for all expenses related to travel and the purchase of materials and services to be itemized and justified. Applicants should refer to the "Allowable Costs" in Section XI for information about what should be described in the Budget Narrative.
6. **Statement from the Applicant.** This statement should be signed by the applicant and briefly confirm that the applicant is a full-time student involved in the research work under his/her post-graduate activity and if awarded, is willing to forgo any additional income for the duration of the project.
7. **Institutional letter of guarantee.** This letter, signed by the authorized person of a non-profit research organization and scientific supervisor(s) of the applicant, should guarantee that the applicant is fully involved in the research work under his/her post-graduate activity at their organization/institution and that the organization supports the proposed research project.

VII. Timetable

- The deadline for proposals to be submitted to NFSAT, NAS RA and CRDF is 18:00, Yerevan time, on September 30, 2010.
- The screening results and information about eligibility of proposals are expected to be communicated to applicants on October 10, 2010.
- The competition results are expected to be announced by December 1, 2010.
- The awards start date is expected to be January 1, 2011.

VIII. Review of Proposals

Each proposal will be screened for eligibility and completeness upon receipt by NFSAT, NAS RA and CRDF. NFSAT, NAS RA and CRDF will solicit external, expert reviews to evaluate all

eligible proposals according to the criteria listed below. NFSAT, NAS RA and CRDF reserve the right to contact the applicant or his/her scientific supervisor for additional information as needed.

NFSAT, NAS RA and CRDF will jointly select the proposals for the 2010 GRASP awards.

The Evaluation criteria:

1. **Personnel Capacity:** The expertise of the applicant and academic advisor (where appropriate) in carrying out the proposed research.
2. **Research Plan:** The technical soundness of the proposed approach, the clarity and rationale for the stated goals of the project, the adequacy of technical resources available to accomplish the work, the soundness of the plan to fully achieve the project within the time allotted.
3. **Research Merit and Impact:** The likelihood that the project will advance knowledge in one or more fields of science or engineering; the likelihood that the proposed research will have a substantive, positive benefit to society in general and to Armenia in particular and the nature of such benefit.
4. **Professional Benefit:** Relevance of the proposed work to the applicant's career goals and areas of specialization and interest. Potential for proposed work to facilitate the applicant's career goals and development. The likelihood that the work may lead to collaborations, future successful funding, the successful completion of a dissertation (where applicable), and results published in an international, peer-reviewed journal.

IX. Intellectual Property

NFSAT, NAS RA, and CRDF make no claim to intellectual property developed under any award. NFSAT's primary interest is that intellectual property rights are equitably allocated between the applicant, his/her scientific supervisor and organization.

X. Confidentiality

NFSAT, NAS RA and CRDF will treat all proposals as confidential material and will require all panelists and reviewers to respect the confidentiality of proposals. For more information visit the awardees section on this website under "Policies and Procedures": <http://www.crdf.org/policies/>

XI. Allowable Costs

NFSAT, NAS RA and CRDF will not consider any proposal requesting more than US \$5,000 from this competition. In case of receiving an award, a project budget may be subject to revision by NFSAT, NAS RA and CRDF staff. The following costs are permitted under NFSAT, NAS RA and CRDF guidelines for this program:

- a) **Individual Financial Support:** Individual Financial Support (IFS) in this competition is payment to a post-graduate student for full-time work on the research performed in the framework of the project: IFS in this program is given only for 100% level of effort (not part time work) on the project. A month for full-time personnel (100% level of effort) will consist of 22 days, with 8 hours of work for each day. The total amount of individual financial support may not exceed \$2,000 of the funds awarded.
- b) **Equipment and Materials.** Support for research equipment, including computers and telecommunication devices, subscriptions to scientific journals and telecommunication services, reagents and other materials to be used in the research. Any item of the requested equipment valued at more than US \$500 must be specifically described and justified in the Budget Narrative.

- c) **Travel.** Travel funds may be used for domestic travel within Armenia and support for travel to international scientific meetings. The purpose and cost of all travel should be justified in the Budget Narrative. The following cost guidelines should be used in preparing the budget:
- (i) **International Transportation.** Lowest-cost applicable round-trip airfare from Armenia. Travel must be by U.S. carriers by all segments for which they are available, and is mandatory for transoceanic flights. For more information, see the “Fly America Policy”: http://www.crdf.org/policies/policies_show.htm?doc_id=291723
 - (ii) **International Living Allowances.** For travel of two weeks or less, living allowances should follow U.S. government per-diem guidelines. Applicants should refer to a website listing current U.S. Government per-diem rates, such as <http://www.govexec.com/travel> or <http://www.gsa.gov/Portal/gsa/ep/home.do?tabId=0>. For research visits of more than two weeks, applicants may request US \$2,000 per month or the prorated equivalent. These allowances cover all costs, including health insurance, which is required. The cumulative international travel time may not exceed two months per 12-month period of an award.
- d) **Secondary Collaboration.** For project-related costs to other institutions from Armenia. Secondary collaboration is the delegation of any portion of a NFSAT project to a secondary institution other than the institution of the applicant. Secondary collaboration may be in the form of sub-contracted work, which will be strictly related to the needs of the project. All personnel and facilities involved in secondary collaboration must be specifically listed and described in the proposal. A separate budget justification must be included for each secondary collaboration in the Budget Narrative.

XII. Special Instructions

All activities funded by the NFSAT and CRDF must be oriented toward non-defense objectives and must be carried out in a civilian environment. This competition is made possible through funds provided to the CRDF from the U.S. Government for the promotion of Armenian science and technology development.

Since this program is made possible through the funds provided to the CRDF from the U.S. Government, NFSAT, NAS RA complies with all U.S. laws and regulations. Please review the links below for additional information.

A. Special Instructions for Proposals Involving Human Subjects Research:

For information about proposals involving human subjects please visit:
http://www.crdf.org/policies/policies_show.htm?doc_id=305889

B. Anti-Kickback Policy and Other Special Terms

Please refer to the following weblinks for more information:
http://www.crdf.org/policies/policies_show.htm?doc_id=296470

XIII. Background

NFSAT

The National Foundation of Science and Advanced Technologies is a non-profit, voluntary, self-financing organization established in 1997 according to the legislation of the Republic of Armenia. The goals of the NFSAT are to:

- A) Promote scientific research and technological development in various fields in conformity with international standards, as well as to develop the scientific and engineering potential in the Republic of Armenia;

B) Provide direct funds (grants) for scientific research and development projects on a competitive basis.

Further information on NFSAT may be found on-line at <http://www.nfsat.am>.

CRDF

CRDF is a nonprofit organization authorized by the U.S. Congress and established in 1995 by the National Science Foundation. This unique organization promotes international scientific and technical collaboration through grants, technical resources, and training. CRDF is based in Arlington, Virginia with offices in Moscow, Russia; Kyiv, Ukraine; Almaty, Kazakhstan; Baku, Azerbaijan; and Amman, Jordan CRDF mission is to:

- Provide cooperative research and development (R&D) opportunities that enable scientists and engineers to address critical security, economic, education and other societal needs.
- Advance peace and prosperity by funding civilian research and development projects that contribute to global nonproliferation objectives.
- Promote the application of science and technology to economic growth through international partnerships and training that foster invention, innovation, entrepreneurship and the commercialization of technology.
- Strengthen university research and education in science and engineering.

Further information on the CRDF may be found on-line at <http://www.crdp.org>.

NAS RA

The Armenian Academy of Sciences (the National Academy of Sciences of the Republic of Armenia until 1993 -) was founded on 25 November 1943 on the basis of the USSR Academy of Sciences' Armenian Branch, organized in 1935.

NAS RA is a highest state scientific self-governing organization, which unites scientific staff of affiliated scientific and research institutions. The Academy promotes and carries out fundamental and applied research in different scientific fields, as well as coordinates research carried out throughout Armenia. NAS RA is an official scientific consultant to the highest Governing Bodies of Armenia.

Checklist of the Application Contents
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1. <input type="checkbox"/> Cover Sheet (Form A)

2. <input type="checkbox"/> Budget (Form B)
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3. <input type="checkbox"/> Curriculum Vitae of both the applicant and his/her advisor

4. <input type="checkbox"/> Project Narrative
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5. <input type="checkbox"/> Statement from the Applicant

6. <input type="checkbox"/> Institutional letter of guarantee
--

7. <input type="checkbox"/> Documentation on Human Subjects Research (if applicable)



**Graduate Research Assistance and Support Program (GRASP-III)
FORM A: COVER SHEET**

GENERAL PROJECT INFORMATION

Total Amount Requested from NFSAT (\$5,000 maximum)		General Scientific Area	
Title of the project			
Brief description of the project (not to exceed twenty-five words)			

INFORMATION ON THE APPLICANT (YOUNG INVESTIGATOR)

Full Name (Last, First, Patronymic)			
Date of Birth (Day/Month/ Year)		Passport #	
Sex (Male or Female)		Social Card #	
Contact Telephone #		Fax #	
E-Mail Address		Web Page Address	
University of previous enrollment			
Field of Last Degree awarded		Year Awarded	
Year of Admission (post-graduate courses)		Field of Courses	
HAVE YOU RECEIVED A GRANT FROM NFSAT OR OTHER FUNDING AGENCIES ?	YES <input type="checkbox"/>	No <input type="checkbox"/>	
<i>If "Yes," please indicate the program and grant number.</i>			

INFORMATION ON THE POST-GRADUATE ACTIVITY

Institution Name			
Institution Complete mailing address			
Institution Director (Full Name, Title)			
Director's Contact Data (Phone, Fax, e-mail address)			
Scientific Supervisor (Full Name)			
Supervisor's Contact Data (Phone, Fax, e-mail address)			
Sex (Male or Female)		Highest Degree Earned	
Field of Degree		Year Awarded	

<i>HAVE YOU RECEIVED A GRANT UNDER A PREVIOUS NFSAT PROGRAM?</i>	YES <input type="checkbox"/>	NO <input type="checkbox"/>
<i>If "Yes," please indicate the program and grant number.</i>		

SIGNATURES* - *Required only for hardcopies submitted to NFSAT*

Applicant's Signature		Date	
Scientific Supervisor's Signature		Date	
Institution Director's Signature and Institution Seal		Date	

* By signing this application, we certify that we meet all the eligibility requirements in this announcement, and that all the information provided is accurate to the best of our knowledge.

FORM B: PROJECT BUDGET

Applicants should refer to Section V, "Allowable Costs", in order to complete Budget Form B.

Individual Financial Support (full-time)			Requested from NFSAT
Full Name (<i>First, Family, Patronymic</i>)	Monthly Rate	Number of Months	-----
TOTAL INDIVIDUAL FINANCIAL SUPPORT			
Equipments and Materials (<i>Please list. All items over US \$500 must be justified in the Budget Narrative. If more space is needed, please list on a separate page.</i>)			
1.			
2.			
3.			
4.			
5.			
TOTAL MATERIALS AND SERVICES			
Travel (<i>Please describe in Budget Narrative.</i>)			
Domestic Transportation			
Domestic Per Diem			
International Transportation			
International Living Allowance/Per Diem			
Other Travel Expenses (e.g. visa fees, conference registration fees, etc.)			
TOTAL TRAVEL			
Secondary Collaboration (<i>All secondary collaborating institutions must be identified and secondary collaborators described in detail in the Budget Narrative.</i>)			
Secondary Collaboration: Individual Financial Support			
Name	Daily Rate	# Days per Month (22 max.)	# Months
Secondary Collaboration: Materials and Services (<i>Please list. All items over US\$300 must be justified in the Budget Narrative. If more space is needed, please list on separate page.</i>)			
1.			
2.			
TOTAL SECONDARY COLLABORATION EXPENSES			
Other (<i>Please describe in Budget Narrative.</i>)			
TOTAL REQUESTED FROM NFSAT			
If Applicable: TOTAL CONTRIBUTIONS FROM OTHER SOURCES <i>(Please describe in Budget Narrative)</i>			

RECEIVED BY: _____

NFSAT staff signature

DATE: _____