# United States-Israel Collaboration in Computer Science (USICCS)

A Joint Program of NSF and the US-Israel Binational Science Foundation (BSF)

# PROGRAM SOLICITATION

NSF 12-603



#### **National Science Foundation**

Directorate for Computer & Information Science & Engineering Division of Computing and Communication Foundations

Submission Window Date(s) (due by 5 p.m. proposer's local time):

January 18, 2013 - February 01, 2013

#### SUMMARY OF PROGRAM REQUIREMENTS

## **General Information**

# Program Title:

United States-Israel Collaboration in Computer Science (USICCS)
A Joint Program of NSF and the US-Israel Binational Science Foundation (BSF)

## Synopsis of Program:

The United States-Israel Collaboration in Computer Science (USICCS) program is a joint program of NSF and the United States - Israel Binational Science Foundation (BSF). The program supports research projects that develop new knowledge in the areas of theory of computing; algorithm design and analysis; design, verification, and evaluation of software systems; and revolutionary computing models based on emerging scientific ideas.

Through this program, NSF and BSF will jointly support collaborations among US-based researchers and Israel-based researchers. US-based researchers will receive funds from NSF to support travel to Israel to interact with their Israeli counterparts. Israel-based and US-based researchers will receive funds allowable under the BSF program described at http://www.bsf.org.il/.

## Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Dmitry Maslov, Program Director for Algorithmic Foundations, 1115, telephone: (703) 292-8910, email: dmaslov@nsf.gov
- Nina Amla, Program Director for Software & Hardware Foundations, 1115, telephone: (703) 292-8910, email: namla@nsf.gov

## Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

47.070 --- Computer and Information Science and Engineering

## **Award Information**

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 6 to 9

Anticipated Funding Amount: \$400,000 in total is expected to be awarded in FY 13 pending availability of funds.

# **Eligibility Information**

## Organization Limit:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

# PI Limit:

None Specified

## Limit on Number of Proposals per Organization:

#### Limit on Number of Proposals per PI: 1

An individual can be a PI, Co-PI or Senior Personnel on only one NSF proposal seeking travel funds in association with a BSF proposal. (This requirement aligns with BSF's limit of one proposal per researcher.)

These eligibility constraints will be strictly enforced in order to treat everyone fairly and consistently. In the event that an individual exceeds this limit, proposals received within the limit will be accepted based on earliest date and time of proposal submission (i.e., the first proposal received will be accepted and the remainder will be returned without review). No exceptions will be made.

# **Proposal Preparation and Submission Instructions**

## A. Proposal Preparation Instructions

· Letters of Intent: Not Applicable

• Preliminary Proposal Submission: Not Applicable

· Full Proposals:

- Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg.
   Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and
- Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/publications/pub\_summ.jsp? ods key=grantsgovguide)

#### **B. Budgetary Information**

· Cost Sharing Requirements: Inclusion of voluntary committed cost sharing is prohibited.

Indirect Cost (F&A) Limitations: Not Applicable

. Other Budgetary Limitations: Not Applicable

#### C. Due Dates

• Submission Window Date(s) (due by 5 p.m. proposer's local time):

January 18, 2013 - February 01, 2013

# **Proposal Review Information Criteria**

Merit Review Criteria: National Science Board approved criteria apply.

# **Award Administration Information**

Award Conditions: Standard NSF award conditions apply.

Reporting Requirements: Standard NSF reporting requirements apply.

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#### I. INTRODUCTION

The United States-Israel Collaboration in Computer Science (USICCS) program supports transformative research projects that explore the foundations of computing. The program seeks advances in theory of computing; algorithm design and analysis; design, verification, and evaluation of software systems; and revolutionary computing models based on emerging scientific ideas.

## II. PROGRAM DESCRIPTION

USICCS supports transformative research in the following areas of theoretical computer science and the foundations of software design and systems:

## Theoretical Computer Science

The USICCS program supports potentially transformative research projects advancing the design and analysis of algorithms and characterized by algorithmic thinking accompanied by rigorous analysis. Research on algorithms for problems that are central to computer science and new techniques for the rigorous analysis of algorithms are of interest. USICCS supports theoretical research that bounds the intrinsic difficulty of problems to determine the measures of complexity in formal models of computation, classical or new. The goal is to understand the fundamental limits of resource-bounded computation and to obtain efficient solutions within those limits. Specifically, the time and space complexity of finding exact and approximate solutions in deterministic and randomized models of computation is a central concern of the program.

Research on resource usage other than time and space, such as communication complexity and energy cost, is also encouraged. In addition to the traditional sequential computing paradigm, USICCS supports research on the design and analysis of novel algorithms in parallel and distributed models, in particular, in heterogeneous multi-core and many core machines; the computational models and algorithms that capture essential aspects of computing over massive data sets; game theory; and alternative forms of computation and information processing, including quantum computing and biological models of computation.

The program supports research in algorithms needed in all areas, both within and outside computer science. Algorithmic research with applications in databases, information retrieval, machine learning, data mining, natural language processing, networks, communications, operating systems, languages, compilers, and machine abstractions is supported. New techniques for the design and analysis of algorithms in areas such as cryptography, computational geometry, computational biology, game theory and numerical, symbolic, and algebraic computing are appropriate for this program.

## Software Foundations

USICCS supports research projects on the science of design, verification, operation, utilization, and evaluation of computer systems through novel approaches, robust theories, high-leverage tools, and lasting principles. Such advances may offer models, methods, languages, logics, novel software artifacts, algorithms to enable new or enhanced functionality, and formal methods and tools for the design, implementation, and verification of computer systems and their applications.

The USICCS program seeks transformative ideas that reformulate the relationship between requirements, design, and evolution of software and software-intensive systems. The program welcomes research projects focusing on program analysis and synthesis, compositionality, verifiability and certifiability of software, as well as research on static, dynamic, functional and non-functional analysis and testing techniques in all stages of the software life cycle. USICCS supports fundamental research on formal and semiformal methods for the specification, development, and verification of software systems. The program seeks proposals that enhance the applicability, usability, and efficiency of techniques such as model checking, theorem proving, automated decision procedures, static analysis and constraint solving. Research topics involving the semantics, logics, verification, and analysis of concurrent systems are welcome. USICCS supports the entire range of programming language and compiler research, ranging from foundations to design to implementation and application, including new approaches to languages and compilers for parallel and concurrent programming.

# III. AWARD INFORMATION

Approximately \$400,000 in total will be awarded through 6 to 9 awards in FY 13 pending availability of funds.

# IV. ELIGIBILITY INFORMATION

## Organization Limit:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

#### PI Limit:

None Specified

#### Limit on Number of Proposals per Organization:

None Specified

## Limit on Number of Proposals per PI: 1

An individual can be a PI, Co-PI or Senior Personnel on only one NSF proposal seeking travel funds in association with a BSF proposal. (This requirement aligns with BSF's limit of one proposal per researcher.)

These eligibility constraints will be strictly enforced in order to treat everyone fairly and consistently. In the event that an individual exceeds this limit, proposals received within the limit will be accepted based on earliest date and time of proposal submission (i.e., the first proposal received will be accepted and the remainder will be returned without review). No exceptions will be made.

## V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

# A. Proposal Preparation Instructions

**Full Proposal Preparation Instructions:** Proposers may opt to submit proposals in response to this Program Solicitation via Grants.gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: <a href="http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg">http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg</a>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by email from <a href="https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg">https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg</a>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by email from <a href="https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg">https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg</a>.
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   Paper copies of the GPG may be obtained from the NSF publications Clearinghouse, telephone (703) 292-7827 or by email from <a href="https://www.nsf.gov/publications/publ
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/publications/pub\_summ.jsp? ods\_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

Through this program, NSF and BSF will jointly support collaborations among US-based researchers and Israel-based researchers. US-based researchers will receive funds from NSF to support travel to Israel to interact with their Israeli counterparts. Israel-based and US-based researchers will receive funds allowable under the BSF program described at http://www.bsf.org.il/.

## All proposals must be coordinated submissions to BSF and NSF.

Collaborative proposals with more than a single United States institution are not allowed.

**Cover Page:** United States PIs and co-PIs for the NSF proposals are expected to be named as co-PIs in a proposal with the same title, previously submitted to BSF's Computer Science program in response to BSF's call for proposals with due date in November, 2012.

**Proposal Titles**: The BSF acronym should be followed with a colon, then the BSF Application Number with a colon, then the title of the project (identical to the title submitted to BSF). For example, if the title of the proposal to BSF is "Title of Proposal" and the Application ID is 0123456, the NSF proposal title should be "BSF:0123456:Title of Proposal."

**Project Summary**: The NSF Project Summary should include the BSF Abstract and a clear description of intellectual merit and broader impact. (Broader Impact appears in the BSF Impact Statement document).

Project Description: The Project Description submitted to NSF should be identical to the Research Plan of the BSF proposal.

References Cited: The references cited should be identical to the BSF References file.

**Supplementary Documents**: All other sections of the BSF proposal (Israel-based researchers' biographical sketches, budgets, Impact Statement, Cooperation letters, etc) should be included in the NSF submission as supplementary documents. The BSF Cooperation letters will serve as NSFs collaboration plan.

# **B. Budgetary Information**

Cost Sharing: Inclusion of voluntary committed cost sharing is prohibited

## **Budget Preparation Instructions:**

The budget of an NSF USICCS travel award should be commensurate with the scope of the work and time spent performing research activities in Israel. Allowable expenses include actual travel and living expenses for the PI and/or the PI's student(s) and postdocs(s) while in Israel. Costs for per diem and housing while in Israel are allowable.

Travel support for meeting with the Israeli collaborator at a third location (e.g., a conference) is allowable as long as the length of collaboration exceeds three days. The intent of the travel award is to support travel for the US researcher and his/her students. The use of the funds for the Israeli collaborator visiting the US requires program director prior approval.

## C. Due Dates

• Submission Window Date(s) (due by 5 p.m. proposer's local time):

January 18, 2013 - February 01, 2013

# D. FastLane/Grants.gov Requirements

## · For Proposals Submitted Via FastLane:

Detailed technical instructions regarding the technical aspects of preparation and submission via FastLane are available at: <a href="https://www.fastlane.nsf.gov/a1/newstan.htm">https://www.fastlane.nsf.gov/a1/newstan.htm</a>. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane Website at: https://www.fastlane.nsf.gov/fastlane.jsp.

#### · For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: <a href="http://www07.grants.gov/applicants/app\_help\_reso.jsp">http://www07.grants.gov/applicants/app\_help\_reso.jsp</a>. In addition, the NSF Grants.gov Application Guide provides additional technical guidance regarding preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: <a href="mailto:support@grants.gov">support@grants.gov</a>. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

**Submitting the Proposal:** Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

# VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program where they will be reviewed if they meet NSF proposal preparation requirements. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with the oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal.

# A. NSF Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board (NSB)-approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two NSB-approved merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which the reviewer is qualified to make judgments.

# What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

## What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance

scientific and technological understanding? What may be the benefits of the proposed activity to society?

Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

Mentoring activities provided to postdoctoral researchers supported on the project, as described in a one-page supplementary document, will be evaluated under the Broader Impacts criterion.

NSF staff also will give careful consideration to the following in making funding decisions:

## Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

#### Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

## B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by BSF's merit review process using NSF's merit review criteria of intellectual merit & broader impact.

BSF will form panels each consisting of *science advisors*, who are established researchers from academia or research labs. Each panel will have at least one science advisor from the US. Science advisors suggest names of potential external ad-hoc reviewers from around the world. These names are then discussed by the panel, and the panel suggests additional names, including from a list proposed by the applicants. The process continues until 4-5 substantial reviews are received. Based on reviews, science advisors prepare a summary and recommendation. The process is concluded in a series of panel meetings of advisors, who rank the proposals and determine an order of preference. These final meetings are held in Jerusalem, with the participation of the American advisors. An NSF representative will be present as an observer. More information about BSF's process can be found at <a href="http://www.bsf.org.ii/BSFPublic/Default.aspx">http://www.bsf.org.ii/BSFPublic/Default.aspx</a>

NSF will use BSF's ad-hoc reviews and the summaries prepared by BSF's science advisors to select the proposals for NSF funding. After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the NSF deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director accepts the Program Officer's recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

# VII. AWARD ADMINISTRATION INFORMATION

# A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

## **B. Award Conditions**

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (GC-1); \* or Research Terms and Conditions \* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and

Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

\*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/awards/managing/award\_conditions.jsp? org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF Award & Administration Guide (AAG) Chapter II, available electronically on the NSF Website at <a href="http://www.nsf.gov/publications/pub summ.jsp?ods">http://www.nsf.gov/publications/pub summ.jsp?ods</a> key=aag.

# C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period. (Some programs or awards require more frequent project reports). Within 90 days after expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report will delay NSF review and processing of any future funding increments as well as any pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

Pls are required to use NSF's electronic project-reporting system, available through FastLane, for preparation and submission of annual and final project reports. Such reports provide information on activities and findings, project participants (individual and organizational), publications, and other specific products and contributions. Pls will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system. Submission of the report via FastLane constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the NSF Award & Administration Guide (AAG) Chapter II, available electronically on the NSF Website at <a href="http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=aag">http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=aag</a>.

# VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Dmitry Maslov, Program Director for Algorithmic Foundations, 1115, telephone: (703) 292-8910, email: dmaslov@nsf.gov
- Nina Amla, Program Director for Software & Hardware Foundations, 1115, telephone: (703) 292-8910, email: namla@nsf.gov

For questions related to the use of FastLane, contact:

• FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

For questions relating to Grants.gov contact:

Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation
message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

# IX. OTHER INFORMATION

The NSF Website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this Website by potential proposers is strongly encouraged. In addition, National Science Foundation Update is a free e-mail subscription service designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Regional Grants Conferences. Subscribers are informed through e-mail when new publications are issued that match their identified interests. Users can subscribe to this service by clicking the "Get NSF Updates by Email" link on the NSF web site.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this new mechanism. Further information on Grants.gov may be obtained at <a href="http://www.grants.gov">http://www.grants.gov</a>.

## ABOUT THE NATIONAL SCIENCE FOUNDATION

as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering.'

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov

> · Location: 4201 Wilson Blvd. Arlington, VA 22230

For General Information (703) 292-5111

(NSF Information Center):

· TDD (for the hearing-impaired): (703) 292-5090

· To Order Publications or Forms:

Send an e-mail to: nsfpubs@nsf.gov

or telephone: (703) 292-7827

· To Locate NSF Employees: (703) 292-5111

# PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

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