CISE Combined Research and Curriculum Development and Educational Innovation Program (CRCD/EI)

National Science Foundation
Directorate for Computer and Information Science and Engineering
   Division of Experimental and Integrative Activities

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

January 13, 2004

REVISIONS AND UPDATES

This program announcement replaces both the CISE Combined Research and Curriculum Development (CRCD) Program announcement (01-139) and the Educational Innovation (EI) Program announcement (02-082).

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

CISE Combined Research and Curriculum Development and Educational Innovation Program (CRCD/EI)

Synopsis of Program:

The objective of this program is to stimulate innovative activities in the Computer and Information Science and Engineering (CISE) disciplines by encouraging the transfer of state-of-the-art research results into undergraduate and introductory graduate curricula, by disseminating best practices in Information Technology (IT) education, investigating emerging areas, and implementing new IT programs. The program supports the design, development, testing, and dissemination of innovative approaches for increasing the effectiveness of educational experiences. CRCD/EI projects may involve: integrating research results into courses and curricula (the research may be ongoing or completed and may be drawn from any research activities in the computer and information sciences and engineering fields); the planning and implementation of formal activities designed to publicize effective innovative programs and IT concepts through workshops, publication and other dissemination mechanisms; and the creation of educational programs and tools that address cutting edge IT. The CRCD/EI Program places special emphasis on curricular approaches that address the recruitment and retention of women and under-represented minorities in IT educational programs.

Cognizant Program Officer(s):

- Anita J. La Salle, Program Manager, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-5006, fax: (703) 292-9030, email: alasalle@nsf.gov

- Harry Hedges, Program Manager, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-8980, fax: (703) 292-9030, email: hhedges@nsf.gov

- Harriet G. Taylor, Program Manager, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-8980, fax: (703) 292-9030, email: htaylor@nsf.gov

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

- 47.070 --- Computer and Information Science and Engineering

Eligibility Information

- **Organization Limit:** None Specified.
- **PI Eligibility Limit:** None Specified.
- **Limit on Number of Proposals:** None Specified.

Award Information

- **Anticipated Type of Award:** Standard Grant
- **Estimated Number of Awards:** 6 to 9
- **Anticipated Funding Amount:** $3,000,000

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Full Proposal Preparation Instructions:** This solicitation contains information that deviates from the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.
- **Indirect Cost (F&A) Limitations:** Not Applicable.
- **Other Budgetary Limitations:** Not Applicable.

C. Due Dates

- **Full Proposal Deadline Date(s)** (due by 5 p.m. proposer's local time):
  January 13, 2004

Proposal Review Information

- **Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

Award Administration Information

- **Award Conditions:** Standard NSF award conditions apply.
- **Reporting Requirements:** Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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I. INTRODUCTION

The objective of this program is to stimulate innovative activities in the Computer and Information Science and Engineering (CISE) disciplines by encouraging the transfer of state-of-the-art research results into undergraduate and introductory graduate curricula, by disseminating best practices in Information Technology (IT) education, investigating emerging areas, and implementing new IT programs. The program supports the design, development, testing and dissemination of innovative

approaches for increasing the effectiveness of educational experiences. CRCD/EI projects may involve: integrating research results into courses and curricula (the research may be ongoing or completed and may be drawn from any research project in the computer and information sciences and engineering fields); the planning and implementation of formal activities designed to publicize innovative IT programs, tools and activities through workshops, publications, and other dissemination mechanisms; and the creation of educational programs and tools that teach cutting edge IT. The CISE CRCD/EI Program encourages projects that focus on the recruitment and retention of women, under-represented minorities and the disabled in IT educational programs.

II. PROGRAM DESCRIPTION

The CRCD/EI program will support the design, development, testing and dissemination of innovative approaches for increasing the effectiveness of the learning experience in IT. This may include innovative pedagogy or integrating IT research results into courses and curricula. The research, whether ongoing or completed, may be drawn from any research activity in the computer and information sciences and engineering fields. (See http://www.cise.nsf.gov for programs supported by CISE). At a minimum, the set of individuals involved in a project should be chosen to ensure an appropriate level of expertise in teaching, curriculum development, and in the relevant research areas. Addition of individuals with expertise in learning sciences, education, information technologies, cognitive sciences and/or related areas, if appropriate to the project, is encouraged. It is not required that the principal investigator or other active participants in the project be the originators of the research results which are to be transferred. However, the proposal should describe the participants' expertise in the research area(s). The CRCD/EI Program supports projects that, for example:

- Integrate state-of-the-art research advances in emerging information technology areas into undergraduate and introductory graduate courses and curricula;
- Address a need for innovative curricula, courses, textbooks, tools, instructional modules and instructional laboratories;
- Engage faculty researchers in curriculum innovation in the context that education and research are of equal value and complementary parts of an integrative IT education enterprise;
- Focus on the recruitment and retention of women, underrepresented minorities and the disabled in IT educational programs;
- Provide for the adoption, adaption, and/or dissemination of effective, innovative curricula and pedagogy;
- Provide national leadership for developing new models of learning and innovative teaching environments;
- Incorporate learning theory and cognitive sciences research that promotes student-based learning styles and integrate their education and research roles;
- Promote broad dissemination, distribution and adoption of exemplary practices;
- Prepare IT students to perform in rapidly changing, globally competitive environments;
- Develop students' capability and motivation to engage in lifelong learning.

Projects supported by the CRCD/EI program are expected to act as national models of excellence by being prototypes of educational experiences for use by other institutions. Proposals should contain a detailed set of activities for communicating the results of projects. Collaboration with other institutions, particularly as part of the dissemination activities, is highly encouraged. The formality, level, and nature of this collaboration will be the decision of the institutions concerned; however the effectiveness of the dissemination activities will be part of the evaluation criteria.

Participants

Projects must involve a diverse set of participants including: persons with research domain expertise; undergraduate/graduate students; and those with expertise in educational methodologies and pedagogy. Describe participants' prior work and the expertise they bring to the project.

Multi-institution participation is strongly encouraged in all projects and is required for projects involving dissemination and adoption of exemplary practices. Industrial participation, where appropriate, should also be incorporated into the project.

Project Management Plan

The Project Management Plan, presented as a description, table or diagram, should outline specific project tasks, dates when the tasks will be completed, and the identity of the project participant who will be responsible for implementing the task. The dates should be fine-grained (for example, monthly) to insure that the plan is well thought out.

Project Evaluation, Implementation, Dissemination

Evaluation

Projects supported under the CRCD/EI program are inherently innovative and experimental in character. Thus, it is essential that the methodologies and results of each project be subjected to careful evaluation to ensure that:

- The objectives of the project are being advanced by the projects' activities;
- Effective measures for evaluation are considered in cooperation with persons experienced in assessment and evaluation;
- Evaluation includes: measurable objectives (for example, objectives for student learning); procedures to measure achievement; a system for monitoring the progress of the project in relation to these measures;
- Reliable evaluation usually requires multiple measures.

Provide a description of the evaluation plan that addresses the points listed above.

Implementation and Dissemination

To achieve the desired national impact, the project must:

- Provide for wide dissemination within the IT education community;
- Demonstrate the accomplishment of the projects' objectives;
- Impact the quality and utility of what is learned or produced.

A dissemination plan should include: designation of the audience to be reached; a description of the information or material to be disseminated; the means of dissemination (such as delivery by electronic means, through workshops, conference presentations, textbooks, laboratory manuals, software, audiovisual materials, journal articles, etc.); a description of how these products will be made available to the IT community and others. It should provide a detailed plan for transferring project results to other institutions and the CISE community.

Facilities

For *projects that rely on physical facilities*, provide a description of the equipment, software, and other facilities and materials currently available to support the project.

In addition, for equipment, software and other items for which funding is requested, provide descriptions with itemized and total cost, and a brief rationale for their selection. For equipment, include a representative manufacturer and model number, if possible. Describe maintenance costs per year and method of computation.

Note: The CRCD/EI Program will only fund equipment or software that is necessary to support the research and/or development foundations of the project. Funding will not be provided to equip student laboratories.

Other

Provide annual budgets showing costs for each of the years requested. FastLane automatically creates the cumulative

budget.

If a proposal includes funding for any subawardees, the lead institution's summary and annual budgets should include the total amount for any subawardees in Line G.5 and the subaward must be justified in the budget justification section. Proposals should also discuss the proposed subaward in the Project Description. See *Grant Proposal Guide (GPG)* section II.C.2.g.vi.e for instructions concerning subawards.

III. ELIGIBILITY INFORMATION

The categories of proposers identified in the Grant Proposal Guide are eligible to submit proposals under this program announcement/solicitation.

IV. AWARD INFORMATION

$3 million is available in FY2004 pending the availability of funds. Estimated numbers of awards and average award size/duration are subject to the quality of the proposals submitted and the availability of funds. CRCD/EI awards will have a maximum duration of three years and are expected to range from $300,000 to $600,000 over the three-year period. However, workshops and similar activities are expected to involve more modest requests and shorter durations. At the current level of funding for this program, it is expected that 6-9 proposals will be selected for support as standard grants.

A proposal involving collaborative or joint arrangements with more than one institution must be submitted by one lead institution only, with the other institution(s) as a sub-awardee(s). If an award is made under the CRCD/EI program, it will be made to the lead submitting institution only.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Instructions:

Proposals submitted in response to this program announcement/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: http://www.nsf.gov/cgi-bin/getpub?gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827or by e-mail from pubs@nsf.gov.

Project Components

Following are descriptions of project components within a CRCD/EI proposal that must be placed in the Project Description section of a FastLane proposal.

1. Project Context

Describe the background and framework for the project and its innovative aspects.

For *IT curriculum projects involving research transfer*, describe the key research component underlying the proposed educational project including:

- IT research currently underway or recently completed. The research need not have been supported by NSF but the Principal Investigator(s) must have demonstrated research expertise in the proposed topic area;
- Justification that there is sufficient body of research to be integrated into the project; and
- An analysis of the state-of-the-art of the research area and a rationale describing the need for the project.

For *projects involving other activities*, describe:

- Focus of the project;
- Why the issue addressed is important;
- Rationale for pursuing the approach being tested;
- Evidence that supports the effectiveness of the approach(es) to be taken in the project;
- Local, regional, and national impacts of the project.

2. Project Activities

For a project *involving an educational component* include:

- Analysis of the need for the proposed education-related activity;
- Description of the educational activities to be undertaken;
- Explanation of the expected impact the proposed activity will have on the PI's home institution, other partner institutions, and/or the educational community and the nation;
- Plans to institutionalize and sustain the proposed innovation;
- Clear articulation of the new knowledge, competencies and skills students will have as a result of the innovation (if applicable);
- Goals and objectives of the proposed activity, with appropriate metrics identified for project evaluation;
- Description of activities designed to increase participation of underrepresented groups, where appropriate.

For projects *involving other activities*, include:

- Description of activities that will be pursued as part of the project;
- Description of the area that will be investigated, advanced, disseminated, implemented, tested or adopted;
- Goals and objectives of the proposed activity, with appropriate metrics identified for project evaluation.

No videotapes, diskettes, textbooks, or CD-ROMs will be accepted. A proposal that does not adhere to the guidelines set forth above will be returned to the Principal Investigator without review.

Note: Please see Section VI. A. for important information about the contents of the Project Summary and Project Description.

Supplemental Documents

Include the following in the Supplementary Documents section of FastLane (these items are not part of the proposal page limit):

- A list of academic participants and a list of industrial or other organizations participating in or providing support for this project (if appropriate);
- Letter(s) from industry regarding the importance of the technology area and its impact on U.S. industrial competitiveness are encouraged as well as the anticipated involvement of the industry in the project (if appropriate);
- Letter(s) of institutional and academic department(s) commitment to implementation and institutionalization of the

proposed curriculum (if applicable) signed by the appropriate Dean(s) of the participating institutions. (Not part of the proposal page limit.) These signed letters of commitment must be included in the Supplementary Documents section of the proposal. If the letters are not included, the proposal will be returned to the Principal Investigator without review.

Proposers are reminded to identify the program announcement/solicitation number (04-001) in the program announcement/solicitation block on the proposal Cover Sheet. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost Sharing:

Cost sharing is not required in proposals submitted under this Program Solicitation.

C. Due Dates

Proposals must be submitted by the following date(s):

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

January 13, 2004

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this announcement/solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: http://www.fastlane.nsf.gov/a1/newstan.htm. 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 announcement/solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this announcement/solicitation.

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. Proposers are no longer required to provide a paper copy of the signed Proposal Cover Sheet to NSF. Further instructions regarding this process are available on the FastLane Website at: http://www.fastlane.nsf.gov

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority-serving institutions, or adjacent disciplines to that principally addressed in the proposal.

The National Science Board approved revised criteria for evaluating proposals at its meeting on March 28, 1997 (NSB 97-72). All NSF proposals are evaluated through use of the two merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

On July 8, 2002, the NSF Director issued Important Notice 127, Implementation of new Grant Proposal Guide Requirements Related to the Broader Impacts Criterion. This Important Notice reinforces the importance of addressing both criteria in the preparation and review of all proposals submitted to NSF. NSF continues to strengthen its internal processes to ensure that both of the merit review criteria are addressed when making funding decisions.

In an effort to increase compliance with these requirements, the January 2002 issuance of the GPG incorporated revised proposal preparation guidelines relating to the development of the Project Summary and Project Description. Chapter II of the GPG specifies that Principal Investigators (PIs) must address both merit review criteria in separate statements within the one-page Project Summary. This chapter also reiterates that broader impacts resulting from the proposed project must be addressed in the Project Description and described as an integral part of the narrative.

Effective October 1, 2002, NSF will return without review proposals that do not separately address both merit review criteria within the Project Summary. It is believed that these changes to NSF proposal preparation and processing guidelines will more clearly articulate the importance of broader impacts to NSF-funded projects.

The two National Science Board approved merit review criteria are listed below (see the Grant Proposal Guide Chapter III.A for further information). 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 he/she 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 and original 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?

NSF staff 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.

Additional Review Criteria:

In addition, specific criteria to be used to evaluate the proposals in this program will include the following items:

Potential of the project to act as a national model of excellence for the CISE community.

Overall merit of the proposed education-related activities.

Overall merit of the research results to be transferred to the instructional domain and its potential impact on US industrial competitiveness and education (if appropriate).

Plan for dissemination of project results.

Level, nature, and appropriateness of participation by underrepresented groups.

Plan for management and operation of the project.

Plan for evaluation of the project and its impact.

Qualifications and demonstrated capabilities of the project team, their understanding of the issues involved in education reform and their commitment to the accomplishment of the effort.

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 identities of reviewers, are available to the Principal Investigator/Project Director NSF's FastLane. In addition, the proposer will receive an explanation of the decision to award or decline funding.

B. Review Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by Ad Hoc Review followed by Panel Review.

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.

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 Director. In addition, the proposer will receive an explanation of the decision to award or decline funding.

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 date of receipt. The interval ends when the Division Director accepts the Program Officer's 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 Division 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.A. 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 (NSF-GC-1); * or Federal Demonstration Partnership (FDP) Terms and Conditions * and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/home/grants/grants_gac.htm. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/cgi-bin/getpub?gpm. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Website at http://www.gpo.gov.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Standard NSF reporting requirements apply to most CRCD/EI projects. However, in addition to the required Annual and Final reports, grantees may also be asked to provide project information that can be used in preparing various NSF external reports. For implementation projects, NSF requires annual reports that are more extensive in scope than those required of single investigator research awards. NSF may also require, in the future, that projects collect and submit to NSF data on indicators of progress and impact.

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for the PI and all Co-PIs. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project reporting system, available through FastLane, for preparation and submission of annual and final project reports. This system permits electronic submission and updating of project reports, including information on project participants (individual and organizational), activities and findings, publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding this program should be made to:

- Anita J. La Salle, Program Manager, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-5006, fax: (703) 292-9030, email: alasalle@nsf.gov

- Harry Hedges, Program Manager, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-8980, fax: (703) 292-9030, email: hhedges@nsf.gov

- Harriet G. Taylor, Program Manager, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-8980, fax: (703) 292-9030, email: htaylor@nsf.gov

For questions related to the use of FastLane, contact:

- Cornell Davis, Program and Technology Specialist, Directorate for Computer & Information Science & Engineering, Division of Experimental and Integrative Activities, 1160 N, telephone: (703) 292-4777, fax: (703) 292-9030, email: cdavis@nsf.gov

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at http://www.nsf.gov/cgi-bin/getpub?gp. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

Many NSF programs offer announcements or solicitations concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices. Any changes in NSF's fiscal year programs occurring after press time for the *Guide to Programs* will be announced in the NSF E-Bulletin, which is updated daily on the NSF Website at http://www.nsf.gov/home/ebulletin, and in individual program announcements/solicitations. Subscribers can also sign up for NSF's Custom News Service (http://www.nsf.gov/home/cns/start.htm) to be notified of new funding opportunities that become available.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Awardees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities and persons with disabilities to compete fully in its programs. In accordance with Federal statutes, regulations and NSF policies, no person on grounds of race, color, age, sex, national origin or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF, although some programs may have special requirements that limit eligibility.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the GPG Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

> 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 or (800) 281-8749
>
> - **To Order Publications or Forms:**
>
>   Send an e-mail to: pubs@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; 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 applicant 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 needing information as part of the review process or in order to coordinate programs; 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," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to an information collection unless it displays a valid OMB control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne Plimpton, Reports Clearance Officer, Division of Administrative Services, National Science Foundation, Arlington, VA 22230.

OMB control number: 3145-0058.