



# COMPUTATIONAL SCIENCE GRADUATE FELLOWSHIP U.S. DEPARTMENT OF ENERGY ADMINISTERED BY KRELL INSTITUTE

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## 2019– 2020 TERMS OF APPOINTMENT

The United States Department of Energy funds the Computational Science Graduate Fellowship through the Krell Institute (KRELL) for U.S. citizens and permanent residents to pursue graduate study at a U.S. university leading to a Ph.D. in computational science or engineering.

### **PERIOD OF APPOINTMENT**

The appointment period of this fellowship year shall be from September 1, 2019 to August 31, 2020 when DOE releases funding to KRELL. Depending on the availability of appropriated funding, the appointment may be renewed by KRELL, in its own discretion, for additional periods. Total fellowship tenure, including the initial twelve-month appointment, is limited to 48 months.

### **PROGRAM OF STUDY**

A central element in the DOE Computational Science Graduate Fellowship (DOE CSGF) Program is a requirement of breadth in the coursework leading to the doctoral degree. The fellow is required to fulfill a Program of Study (POS) that includes graduate coursework in three areas: a scientific or engineering discipline, computer science, and applied mathematics. All courses must be graduate level courses or accepted for graduate credit by the fellow's major department. **The POS is a formal agreement between the student and the DOE CSGF program that is ratified by the fellow's advisor.**

*Acceptance of this fellowship constitutes an explicit commitment by the fellow and his/her advisor to follow an approved Program of Study leading to a doctoral degree that meets these minimum requirements:*

#### **For a Science/Engineering Major**

In addition to graduate courses in the major field;  
1 year of computer science courses  
1 year of applied mathematics courses

#### **Computer Science Major**

In addition to graduate courses in computer science;  
1 year of science/engineering courses  
1 year of applied mathematics courses

## **Mathematics Major**

In addition to graduate courses in mathematics;

1 year of science/engineering courses

1 year of computer science courses

(1 year = 2 courses if the university is on a semester system; 3 courses if the university is on a quarter system)

*POS courses **MUST** be taken for a grade when permitted by the university; auditing or taking a course Pass/Fail is not acceptable. A grade of B– or better must be achieved in courses designated to fulfill the Program of Study requirement.*

Appropriate courses from the computer science department include data structure, compilers, visualization/graphics, architectures, parallel computing, software engineering, networking, databases, and theory of algorithms. The computer science requirement is not satisfied by courses in numerical analysis, numerical linear algebra, etc., even if they are offered in the Computer Science Department. Such courses may satisfy the applied mathematics requirement if they have appropriate content and are **approved in advance**.

Appropriate courses from the mathematics department include: numerical analysis, modeling, applied analysis, differential equations, asymptotics, linear algebra, Monte Carlo methods, statistics and/or probability, and stochastics. Mathematics-related courses offered in departments other than Mathematics (for example, in the Computer Science or an applications area) will satisfy this requirement only if **approved in advance** by the fellowship committee.

**Fellows should complete the approved Program of Study by the end of the second year of the fellowship. Fellows who begin their doctoral study at the same time as the fellowship have an additional year to complete this obligation.**

**All changes in the Program of Study must be approved in advance by the DOE CSGF committee. Unapproved changes to the Program of Study may jeopardize renewal of the fellowship.**

**Fellows must continue to make satisfactory progress toward a doctoral degree to remain in the program.**

## **PRACTICUM**

Fellows are required to complete a practicum at a DOE laboratory. The practicum is intended to broaden their experience **outside of their main thesis path** and to allow them to apply their skills to new problems in computational science. Generally, the practicum is planned for the summer following the first year of support and should be completed prior to the beginning of the third year of the fellowship. The length of the practicum is negotiable, but, generally, it is for a continuous period of not less than twelve weeks during which the fellow is in residence at the practicum site. It is not required that the practicum be during a summer.

Additional research experience at a participating facility beyond the first practicum may be arranged by agreement among the fellow, the faculty adviser, the university and practicum coordinators involved and KRELL.

As part of the renewal process, all proposed practicum assignments will be reviewed to insure that they fall within the spirit of the program. Guidelines for submitting the practicum request are found on your secure site.

Arrangements for security clearances, if necessary, shall be worked out between the fellow and the host site.

## **OBLIGATIONS**

By acceptance of an appointment, fellow agrees to:

1. Not vacate the appointment during the fellowship period;
2. Continue to make satisfactory progress toward a doctoral degree while registered as a full-time student;
3. Have changes to the Program of Study approved in advance by the DOE CSGF committee;
4. Pursue and complete the approved Program of Study within the specified period of time (by the end of the 2<sup>nd</sup> or 3<sup>rd</sup> year of the fellowship, depending upon when the fellowship is awarded (see earlier discussion on Pg. 2);
5. Complete a Practicum before the beginning of the third year of the fellowship;
6. Attend the DOE CSGF Annual Program Review and vest KRELL with rights to publish their presentation materials and remarks on the Annual Meeting website;
7. Represent the DOE CSGF program in a professional manner in public venues, including, without limitation, professional society meetings, conferences, and fellowship events, and participate fully in scheduled fellowship conference events and activities,

showing respect for other fellows, invited guests and other attendees.

8. Accept and comply with KRELL's Statement of Privacy Practices regarding confidential information;
9. Notify KRELL of any and all changes affecting his/her status in the program; and
10. Keep KRELL informed of his/her current address for a period of five years after the fellowship ends and promptly respond to questionnaires sent by KRELL.

Acceptance of this appointment involves no specific commitments with regard to future employment on the part of the fellow, KRELL, the Department of Energy or its contractors. KRELL encourages each fellow, upon receiving his/her academic degree, to give serious consideration to employment with DOE, its contractors or to teaching.

## **FULL-TIME STUDY**

The fellow must be enrolled as a full-time student in an academic program in computational science approved by this fellowship that leads to the award of a doctoral degree. Normally this will involve on-campus study and research for approximately nine months of the year along with additional research or a practicum assignment for the remaining three months of the year. The fellow will be devoted to study and research except for vacation periods that will be in accordance with the practice of the university in which the fellow is enrolled. Under normal circumstances a fellow may not engage in work for remuneration during the school term. If the university requires the fellow to assume certain responsibilities ordinarily required of all students working for the degree, such as teaching for a limited period, KRELL must be informed in advance by the fellow and the university coordinator. **The fellow must request prior approval for any work, remunerated or voluntary.** The amount of work shall be such as not to interfere with the enrollment of the fellow in a full-time academic program and is subject to recommendation from the university coordinator and approval of KRELL. **By prior agreement with their departments, fellows entering the program after September 1, 2010 will not be required to perform department services beyond one term (e.g., teaching, grading, etc.) during their fellowship tenure. Any teaching or other departmental duties performed during the fellowship period must be approved in advance and the stipend and tuition payments will be decremented accordingly.**

**OFF-CAMPUS  
THESIS/DISSERTATION  
RESEARCH**

In the event a fellow elects, with the approval of the university, to perform thesis or dissertation research at a DOE participating facility, the following provisions will apply:

1. KRELL will pay only required tuition and fees to the university.
2. The thesis or dissertation research will normally be on an unclassified topic and will be conducted under joint supervision by a university faculty adviser and a staff member of the participating facility. The participating facility staff member shall be appointed by the university to the fellow's graduate research committee.
3. When approved in advance by KRELL, the fellow may be reimbursed for one round trip per year from the center to the university to consult with his/her graduate research committee and to present a seminar on results of the thesis/dissertation research.

**As administrator of the DOE CSGF Program, KRELL shall make payments, as discussed below, to and for the benefit of fellows participating in the program. All payments shall be made in accordance with the policies and procedures established by KRELL to comply with legal requirements established by DOE and other governmental entities. No payments will be made until a signed copy of the Terms of Appointment Acceptance Form has been received by KRELL. All payments and benefits described in this document are dependent on the availability of appropriated funding from DOE. If changes in available funding occur, fellows will be notified as soon as possible regarding the impact on fellowship payments and benefits.**

**STIPENDS**

KRELL will pay a stipend of \$3,083 per month for the September 1, 2019 to August 31, 2020 appointment period or through the final month of the term in which all graduation requirements are completed. Acceptance of employment ends the fellowship appointment and all applicable benefits. A supplemental allowance and certain travel support may be provided during the practicum period.

**TUITION & FEES**

KRELL will pay, directly to the university, the tuition and fees, including **basic** health insurance, that are required for any full-time graduate student enrolled in the same or equivalent programs. Summer tuition and fees will also be paid if the fellow is enrolled as a full-time student and if required by the university. For students performing required teaching assignments, the program will eliminate

or decrement tuition and fees payments to the university during the teaching assignment.

#### **ACADEMIC ALLOWANCE**

KRELL will pay, directly to the university, an academic allowance. The academic allowance for first year fellows will be \$5,000 and for renewed fellows \$1,000. These funds can be used for expenses to support the fellow's research and professional development such as publication/printing, books/supplies, travel to meetings/conferences, software, and the purchase of workstations and/or laptops. All workstation purchases must be approved in advance, not exceed \$4,950, and be in compliance with the workstation purchase policy. If purchases are made without prior authorization, future funds will be in jeopardy and the Krell Institute reserves the right to recoup any funds inappropriately distributed.

#### **TRAVEL**

KRELL will reimburse fellows for required program travel, including travel for both the annual program review meeting and practicum activities, in accordance with its established travel policy and procedures. For the practicum, one round trip will be allowed for travel between the home university and the practicum site. Krell will also pay for one trip to visit prospective practicum laboratories prior to the actual practicum dates. This normally means a pre-practicum visit to one laboratory but visits to multiple laboratories might be allowed, depending on cost. This reimbursement will only be made if approved in advance by KRELL.

#### **DUPLICATION OF BENEFITS**

KRELL will not duplicate financial aid a fellow may receive from a federal fellowship, scholarship, or another similar federal grant during the period of this appointment. Veterans Administration benefits to the fellow are excluded from this restriction. Acceptance of any other fellowship or award may be allowed provided it is approved in advance.

#### **TAXABILITY OF STIPENDS AND OTHER PAYMENTS**

Stipend payments may be taxable to the fellow in full or in part. KRELL does not withhold taxes from these payments.

**The statement above regarding the taxable status of stipends is provided as information only. It is not intended as legal or tax advice, or as a definitive interpretation of the law. Each fellow is personally responsible for his/her individual tax preparation and payment. Specific questions regarding the tax**

**treatment of this award should be directed to a tax advisor or the Internal Revenue Service.**

## **REPORTS AND PUBLICATIONS**

DOE and KRELL encourage fellows to publish reports and articles in professional journals. All publications will acknowledge DOE CSGF support, and, if appropriate, will show a joint affiliation of the fellow with the DOE Laboratory in which the research was conducted. The fellows will be provided the grant number that corresponds to their support that they must reference in acknowledgements. This signed document is an agreement that the fellow will acknowledge this support in appropriate reports and publications. A paper or electronic copy of the fellows' thesis or dissertation must be sent to KRELL.

## **RESERVATIONS**

This Terms of Appointment ("TERMS") agreement is not a contract of employment and nothing contained herein shall be construed as to infer a contract of employment.

Appointments are accepted subject to the OBLIGATIONS stated above, as well as other conditions set forth in the TERMS. KRELL reserves the right to cancel or terminate an appointment at any point in time if KRELL, in its sole discretion, determines that a fellow has failed to comply with the OBLIGATIONS or other conditions of the TERMS. If, at any time, a fellow becomes unable to adequately carry out the TERMS, KRELL, in its sole discretion, may withdraw or terminate the appointment upon such basis as it deems proper.

KRELL reserves the right to make appropriate changes in the statement of the TERMS as the result of new legislation or experience in administering the program, and to cancel or terminate an appointment that was made as a result of misinformation given by the fellow, or any reference, or as a result of withholding information that would have prevented the appointment.

## **RESTRICTED DATA AND OTHER CLASSIFIED INFORMATION**

During this fellowship the fellow may participate in or observe work that involves information that must be safeguarded against disclosure to inappropriate parties. The fellow agrees to protect such information against disclosure to persons not entitled to receive it. Disclosure of such information to any person not entitled to receive it, or failure to safeguard any restricted data or any Top Secret, Secret or Confidential Information, may subject the fellow to criminal liability under the laws of the United States.

## **DISCLAIMER OF LIABILITY**

Neither DOE, KRELL, the host facility, nor persons acting on their behalf will be responsible for:

1. Any alleged or actual liability, cost or expense incurred as a result of personal injury to or death of persons including the fellow, or damage to or destruction of property, or for any other loss or damage, or injury of any kind whatsoever, except where such death, injury, loss, or damage is the result of willful negligence or intentional misconduct of an officer, agent, or employee of DOE, KRELL, or the host facility.
2. Any claims, losses, expenses (except as otherwise provided in these TERMS) or damages, including but not limited to bodily injury, death, or property damage, caused by the negligence or misconduct of the fellow.
3. Any claims, losses, expenses, or damages, including, but not limited to, bodily injury, death, or property damage, arising out of, or resulting in any way from, the use or misuse of information acquired by the fellow during the appointment under these TERMS.

Neither DOE, KRELL, the host facility, nor persons acting on their behalf, make any warranty, express or implied, (i) with respect to the accuracy, completeness, or usefulness of any information acquired by the fellow under these Terms of Appointment, (ii) that the use of any such information may not infringe upon privately owned rights, (iii) that the information acquired by the fellow under these Terms of Appointment will not result in injury or damage when used for any purpose, or (iv) that information acquired by the fellow under these Terms of Appointment will accomplish any particular results or are safe for any purpose, including the intended purpose.

## **INVENTIONS AND DISCOVERIES**

In recognition of the statutory intent set forth in Title 35 United States Code Section 212, the fellow acknowledges that this appointment is considered to be in the nature of a scholarship, fellowship, training grant, or other funding agreement made on behalf of a Federal agency primarily to an awardee for educational purposes, and therefore, no provision shall be contained herein, nor shall any section be construed as permitting or authorizing, the Federal agency to assert any rights to inventions made by the awardee. This fellowship policy does not preclude a university or participating center from asserting rights to a fellow's inventions.



## TERMS OF APPOINTMENT ACCEPTANCE FORM

I have carefully read the above Terms of Appointment for the period September 1, 2019 to August 31, 2020 with full knowledge that this appointment is granted subject to said Terms. By accepting the appointment, I am bound by said Terms of Appointment, and I do hereby accept the appointment. If legally a minor, a parent or legal guardian, by the signature below, accepts the terms of this appointment in my behalf.

Your signature should be witnessed and signed by someone with whom you are well acquainted, but to whom you are not related.

_____ Signature of Fellow	_____ Typed or Printed Name of Fellow/Date
_____ Signature of Witness	_____ Typed or Printed Name of Witness/Date
_____ Signature of Parent/Guardian (If a minor)	_____ Typed or Printed Name of Parent/Guardian/Date

Please sign and return this form to:

DOE Computational Science Graduate Fellowship Program  
KRELL Institute  
1609 Golden Aspen Drive, Suite 101  
Ames, IA 50010  
Fax: 515-956-3699