2017 CALL FOR MENTOR PROPOSALS FOR THE HIGH PERFORMANCE COMPUTING INTERNSHIP PROGRAM (HIP)

Submissions due: 30 November 2016

INTRODUCTION:

The use of high performance computing (HPC) resources requires unique knowledge, skills and abilities. These qualifications are rarely introduced or obtained in school. The HPC Modernization Program's (HPCMP) Workforce Development (WD) initiatives provide future workforce candidates with the computational skills and experience necessary to close the gap between the technological capability and skills necessary to support the DoD's future Warfighter needs, making progress towards achieving one of the HPCMP's goals.

The HPC Internship Program's (HIP) focus: high-caliber mentors with challenging and rewarding HPC projects that will leverage existing government-wide and local programs to attract the best intern candidates and prospective DoD employees. The HIP provides funds for these interns working with HPC systems or on HPC projects utilizing HPC tools, resources, and methods.

> *"This was my first technical experience outside of University and it's been a great experience, I've learned a lot, and it has pointed me towards a career."*
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> *"We have had really talented students that have been highly productive. Much of the work that the students have done during HIP projects, coupled with experimental work, resulted in peer-reviewed journal papers. Peer-reviewed papers are valuable product of fundamental research, because it shows that viable, credible research is coming out of the Air Force and it boosts the Air Force's image."*
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> *Comments from a 2016 HIP intern and mentor*

THE CALL:

In continuing support of this goal, the **HPCMP is issuing the 2017 Call for Mentor Proposals for the HPC Internship Program**. Contingent upon funding availability, the HPCMP plans to sponsor projects to provide selected interns the opportunity to work on scientific or engineering projects using HPC tools, resources, and methods. Qualifying HIP mentor projects will be funded up to $24K per internship to offset some, or all, of the costs of the internship.

ELIGIBILITY:

- A DoD government scientist/engineer in a DoD laboratory or test center supporting a Service/Agency key mission priority or program of record (hereinafter referred to as mentor) that will apply, or plans to apply HPC tools, resources and methods to their project; ***or***
  An HPCMP component (i.e., DSRCs, Networks, Security, Software Applications) or initiative (CREATE, Frontier projects, HASI projects, etc.) government scientist/engineer (hereinafter referred to as mentor) that will apply HPC tools, resources, and methods to their project.
- Mentors who will utilize their DoD laboratory's or test center's existing processes and hiring vehicles to identify and select interns from any of the following categories: undergraduate and graduate school students; post-doctoral fellows; wounded warrior and veteran programs; under-represented minorities; and engineering and science development programs.
- In addition to any government-wide/local program requirements specific to the selected program/vehicle, the HPCMP HIP requires ALL interns to be US citizens with a GPA of 3.0 or higher.
- Mentor organizations that participated in the HPC HIP during FY2016 must have completed that effort and closed out FY2016 funding, or have been approved for an extension of that effort by the HPCMP.
- Mentor organizations must be able to accept funds for the internship effort. Funds cannot be redirected by the HPCMP to a "third-party" organization on behalf of the mentor organization.

RESPONSIBILITIES:

- Mentor and mentor organizations are responsible for the financial reporting and obtaining the security clearance, workspace, and local computer assets required for the internship, as is usual and customary at the mentor organization, and in accordance with the internship program/vehicle being leveraged.
- The HPCMP, via the WD Office, will provide an HPCMP account for the intern to access HPCMP resources. At a minimum, a NACI clearance will be required to give access to HPCMP resources. The HPCMP will assist the mentor, if necessary, in obtaining a NACI for the intern.

PROCESS:

- **Proposal Submission:**
  - DoD government scientists/engineers interested in submitting a proposal must use the attached proposal form – substitutions **will not** be accepted.
  - Submitters will ensure that their proposal submissions have their performing organization's confirmation of intent to accept funds. This confirmation is provided by the proposed performing organization's Approving Official and the Financial Point-of-Contact digital signatures in Section 2 of the proposal.
  - Services/Agencies may require additional requirements, and submitters should allow sufficient time to accommodate these additional requirements to meet the **30 November 2016** deadline.
  - When submitting the proposal, the following file naming convention will be used for the document: <mentor's last name>_org>_<date> (for example: Cooke_NRL_07Nov2017.pdf). HIP Mentor Proposals must be submitted by e-mail to the HPCMP WD Office using: **2017-HIP@HPC.mil** by **30 November 2016.**
- **Evaluation:** The proposals will be reviewed by an evaluation panel against the following criteria:

  1 – ***Mission Impact to the Service/Agency:*** Does the proposal clearly state the value of the project to the mentor's Service/Agency organization? Are specific Service/Agency RDT&E activities (such as Key Mission Priorities or Programs of Record) supported and impacted by this project? (20 points)

  2 – ***Proposal Quality:*** Does the proposal identify appropriate HPC tools and resources to be used for the project? What is the technical quality of the work proposed in the project? Does the proposal have a project plan and clearly defined outcomes? Is there a realistic project schedule and is the proposed work achievable in the time period specified? (20 points)

  3 – ***Importance to the Intern:*** Is the proposed work challenging to the intern? Does the project have relevance to a STEM student's professional goals? Are plans for professional networking activities, training and touring the local laboratory/test center specified? Will this project enhance an intern's skills, knowledge and abilities to improve career opportunities? (30 points)

  4 – ***Potential for Mentor Success:*** Is there a reasonable expectation that the mentor identified in the proposal has a clear understanding of the roles and responsibilities required to successfully mentor a HIP Intern? What experience does the mentor have as a mentor in such intern programs as HIP? Is this project well-coordinated with the technical work performed by the mentor and his research group? How well does the proposal place this project in the appropriate context of Workforce Development? (30 points)

- **Selection:** All evaluations will be used to formulate a proposed set of HIP awards for consideration by the Director, HPCMP. Award announcements are planned for January 2017.

QUESTIONS:

There is a Frequently Asked Questions (FAQ) sheet available on the HPC website: HIP Project Management.

All additional questions regarding the Call for Mentor Proposals for the High Performance Computing Internship Program (HIP) should be directed to **2017-HIP@HPC.mil**.