

Idaho IGEM Program

Progress Report Form

Proposal No. IGEM13-003
Name: Dr. Jim Alves-Foss
Name of Institution: University of Idaho
Project Title: IGEM Proposal: Multidisciplinary Cyber-Security
Faculty Cluster Hire
Reporting Period: August 2012 - June 2013

Information to be reported in your progress report is as follows (attach additional information as needed):

1. Summary of project accomplishments for the period just completed and plans for the coming reporting period:

Summary

The focus of this project is on the hiring of several faculty in a multidisciplinary cyber-security cluster, with the intent of expanding current faculty with a cadre of new faculty. This group will then pursue new external funding opportunities for on-campus research and also pursue collaboration with Idaho and regional industry.

To date the primary focus of the project has been on the searches for the new faculty and staff hires. The progress of these searches is as follows:

- Research Scientist staff member: This was the first search we conducted, with the search closing in September 2012. Unfortunately this search was classified as a failed search due to insufficient qualified applicants. Part of the difficulty is matching the position description, job duties to reasonable salaries. This position was reclassified as a research faculty member position, which increases the search possibilities. That search closed January 8th, 2013. We made an offer which was not accepted. We are continuing this search.
- Computer Science Associate Professor. Search closed in October 2012, but with insufficient qualified applicants. Job description was revised to allow for assistant professor applicants. Our new hire is an assistant professor with a couple years of experience. He has started part-time summer work with us getting his research activities going and will be teaching and conducting research this Fall.
- New Faculty member in Sociology: This search closed successfully in October 2012. The new hire started working with us part time this spring and summer, and she will be here full time this fall. We have started working on joint grant proposal.
- Civil Engineering faculty positions. This search closed in March 2013. The new hire is coming to us with experience in state-level transportation and university affiliation. He will start full time this fall.
- Electrical and Computer Engineering joint faculty position. This search closed in February, unfortunately our top candidates all selected other universities for employment.

We are continuing this search.

- Computer Science joint hire position. We have reached agreement with INL on this joint position and are conducting the search now.
- Visiting scholar. We had a unique opportunity to bring aboard a visiting professor from China. Most of her pay will come from the Chinese government; we are providing \$9000 in 2013 toward her salary. Her expertise in secure operating systems will be a large benefit to this project. We anticipate working on establishing a long-term relationship with her home university. We have already submitted three joint research papers with her and are looking at more before the year is out. We have begun discussion of joint patent and funded research opportunities.

In addition to the searches, we have been preparing for collaborative external funding for projects involving the new cyber-security cluster. Dr. Alves-Foss has travelled to Idaho Falls, Boise, Post Falls and Coeur d'Alene to give presentations to government and industry representatives and to begin the discussions for collaboration. He has also visited with representatives from INL and PNNL on the Moscow campus.

In addition Dr. Alves-Foss has had meetings with NSF and DARPA with specific discussions related to multidisciplinary cyber-security research and for critical infrastructure research. These discussions are leading to several proposals being submitted this year to expand our research in these critical areas. The program managers at NSF and DARPA are very interested in the UI's approach to the faculty cluster hire and the research directions we are proposing.

Plans for Coming Period

During the coming period we plan the following:

- Complete the hiring processes.
- Submit multiple proposals for external funding to support research of the current group as well as the new faculty.
- Partner with the visiting professor to set ground work for long-term relationship.
- Travel across the state to present the concepts of this IGEM project and to dialogue with potential industry partners.
- Continue dialogs with potential partners for last joint-hire position as well as other joint opportunities.

2. Summary of budget expenditures for the period just completed (include project burn rate):

The following expenditures represent the current salary expenses for Dr. Alves-Foss and his travel related to IGEM and hiring expenses to date (through May 2013). Some additional expenditures have not yet posted. We will be expensing more on the remaining searches, moving, start-up and operating this coming summer and semester.

Category	Expenditure	Budgeted for FY 2013	Burn Rate (% annual budget)
Faculty Salaries	\$ 20,777	\$ 268,700	8%
Group Travel Expenses	\$ 9,192	\$ 25,000	37%
Search Expenses	\$ 31,049	\$ 40,000	78%
Moving Costs	\$ 1,044	\$ 36,500	3%
Operating Expenses	\$ 6,797	\$ 20,000	34%
Startup	\$ 5,488	\$ 200,000	3%
Equipment	\$ 4,393	\$ 50,000	9%
Total	\$ 78,740	\$ 640,200	12%

We project that expenditures in all categories will dramatically increase this next budget period as we complete the hiring process.

3. Numbers of faculty and student participation resulting from the funding, including internships:

- Current funded participation involves funding for Dr. Alves-Foss who is coordinating the searches and meeting with potential sponsors. Other faculty participation in the searches or with sponsor meetings have been funded directly through university funds.
- Two new faculty hires have started work this summer.
- Two graduate students are working part time starting this summer in support of the new faculty hires and this project.
- A visiting faculty member has been funded on this project.
- Two other UI faculty travelled to an Idaho Technology Council meeting in April to meet with potential industry partners.

4. List patents, copyrights, plant variety protection certificates received or pending:

None at this time.

5. List technology licenses signed and start-up businesses created:

None at this time.

6. Status of private/industry partnerships (include enough information to judge level of engagement):

Dr. Alves-Foss travelled to Idaho Fall to discuss potential collaboration with INL involving one of the joint hire positions. He has met with INL and PNNL visitors on the Moscow campus. He has also travelled to Coeur d'Alene and Post Falls to discuss the IGEM initiative and to meet with potential collaborators. We have also had email and phone conversations with other potential partners. We are currently in early discussions with most potential collaborators; most are waiting to see who we hire.

INL will be funding ½ of one of the faculty positions.

7. Any other pertinent information that will indicate to the council that the project is meeting satisfactory progress.

We were a bit optimistic in the hiring timetable by hoping that the funds would be made available by July 1 and that all searches would move smoothly. We are on track now for hiring a good cadre of faculty.

Potential funding agencies, especially the NSF Secure and Trustworthy CyberSpace program, are very interested in multidisciplinary cyber security research. In January they released an opportunity for funding joint research between computer scientists and social scientists to better improve security of the nations computing systems. This is very timely for this project.

We are planning on submitting a request to use some of the residual funds for Faculty hires to support a postdoc.