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Research

Appel à Projets Microsoft Research

Ouverture le 15/11/2009

Date limite de remise des réponses le 1^{er} février 2010

Notification des résultats le 1^{er} mai 2010

**Microsoft Research Software Engineering
Innovation Foundation (SEIF) Awards**

MOTS CLÉS

INFORMATIQUE

COMPUTER SCIENCE

SOFTWARE ENGINEERING

GENIE LOGICIEL

PROGRAMMING LANGUAGES

COMPUTER SUPPORTED COOPERATIVE WORK

REQUIREMENT

TESTING

ANALYSIS

SOFTWARE VERIFICATION

BUG-FINDING

STATIC ANALYSIS

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PRÉSENTATION DU PROJET

CHAMP SCIENTIFIQUE

Software engineering research is one of the foundational pillars of computer science research. Microsoft Corporation and Microsoft Research actively work with the software engineering community to advance the state of the art in software engineering research. We are therefore pleased to invite software engineering researchers to apply for research awards in all areas of software engineering.

Mots clés : software engineering, computer science, informatique, genie logiciel

RÉSUMÉ DE LA RECHERCHE

The Software Engineering Innovation Foundation (SEIF) awards will support projects for one year. An interim status report is expected after six months. On completion of the projects, the Principal Investigator (PI) for each project will be invited to attend a capstone event/workshop collocated with a prominent software engineering research conference (such as ICSE or FSE) to present his or her work.

We encourage (but do not require) proposals that utilize Microsoft Visual Studio 2010 as well as other Microsoft technologies (such as .NET, C#, and F#) and Microsoft Research tools and technologies (some of which are detailed at <http://research.microsoft.com/en-us/collaboration/focus/cs/seif.aspx>). A practical application/evaluation component is strongly encouraged.

Approximately twelve awards, ranging from US\$15,000 to US\$25,000, will be made, inclusive of travel costs towards attending the workshop at the capstone event.

OBJECTIF DE LA RECHERCHE

Multiple challenges face the software engineering community in the realm of software engineering education, research, and tools. With this request for proposals, Microsoft Research will support academic research in software engineering technologies, tools, practices, and teaching methods. Projects can be related to any of the core areas of interest in software engineering research and education. Proposals are invited from but not limited to the following areas of interest:

- Computer supported cooperative work
- Empirical software engineering
- Engineering secure software
- Mining software repositories
- Programming languages and design
- Software dependability, safety, and reliability
- Software engineering education
- Software processes
- Software requirements engineering
- Software testing and analysis
- Software verification
- Static analysis and bug-finding

Other areas of interest include verification of native code and anti-pattern detection in legacy applications. Resulting tools/processes and materials are expected to be publically shared with the research community under the Microsoft Public License.

NIVEAU DE CONFIDENTIALITÉ

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Non confidential (public)

VOLUME FINANCIER PRÉVU

Approximately twelve awards, ranging from US\$15,000 (10 000€) to US\$25,000 (17 000€), will be made, inclusive of travel costs towards attending the workshop at the capstone event.

% DE FINANCEMENT COUVERT PAR L'ENTREPRISE

Awards are made for the purpose of seed-funding larger initiatives, proofs of concept, or demonstrations of feasibility. It is important to understand that funding is not expected to continue after the first year and that Principal Investigator who are granted SEIF awards should therefore make every effort to leverage the award as one component of a diverse funding base in a larger or longer-running project. Proposals with a clear plan to secure co-funding are encouraged.

DURÉE DU PROJET

The Software Engineering Innovation Foundation (SEIF) awards will support projects for one year. An interim status report is expected after six months. On completion of the projects, the Principal Investigator (PI) for each project will be invited to attend a capstone event/workshop collocated with a prominent software engineering research conference (such as ICSE or FSE) to present his or her work.

DATE DE DÉPART DE LA RECHERCHE

1^{er} mai 2010

DATE DE FIN DU PROJET

30 avril 2011

LIEU D'EXÉCUTION DE LA R&D

free

ÉLÉMENTS DE PI

After an initial contact, the IP elements will be defined between the relevant departments of the company and the relevant department of the research organism.

PÉRIMÈTRE DE L'APPEL À PROJET

International

RENSEIGNEMENTS PRATIQUES

MODALITÉS DE SÉLECTION

Proposals will only be accepted from the following institutions: (i) accredited universities awarding degrees at the baccalaureate level or above or (ii) a research institution with non-profit status. The competition is open to all eligible institutions worldwide.

The following types of proposals are encouraged:

- Collaborative proposals embracing multiple groups across the institution.
- Cross-platform development and interoperability with other operating systems and applications.

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Proposals that are incomplete, inaccurate, or are otherwise not responsive to the stated aims, terms and conditions of this RFP may, at the sole discretion of Microsoft Research, be excluded from consideration.

Proposals must be written in English and submitted through an online tool that will be accessible from this page.

Microsoft shall have no obligation to maintain the confidentiality of any submitted proposals. Therefore, proposals should not contain information that is confidential, restricted, or sensitive. Microsoft Research reserves the right to make the winning proposals publicly available, except those portions containing budgetary or personally identifiable information.

The submission process includes two parts.

- 1. Brief summary and contact information** – Applicants must provide full contact information for Principal Investigators, amount requested, a brief abstract, and suggestion of two expert reviewers (one preferably working at Microsoft Research). This information should be entered into the Web form during the online proposal submission process.
- 2. Complete project proposal** – The proposal must contain full detail on the proposed project in a maximum of five letter-sized (8.5-inch × 11-inch) pages, 10-point font, in either Microsoft Office Word or PDF format. The project proposal will be made available for peer review by Microsoft researchers and senior engineers from the Visual Studio team.

The research project proposal should address the following points:

- **Problem Statement** – What is the problem addressed by the proposal, and why is it important? What is the potential contribution to the field of the project if successful? Cite relevant work in the field as appropriate.
- **Expected Outcomes** – What tangible assets will be created or produced as a result of the proposed project? How will the results of this project be disseminated to others?
- **Related Research** – Briefly summarize the current state of the art in this field, including references where appropriate.
- **Benefits to the software engineering community** – Include a statement of the profile of the community served by the proposal and how the project addresses issues and challenges in that community.
- **Schedule** – What milestones will be used to measure progress of the project during the year and when will they be completed? If the project described is part of a larger ongoing research program, estimate the time for completion of this project only.
- **Qualifications of Principal Investigator** – For the PI, include a brief description of any relevant prior research, publications, or other professional experience. A detailed C.V. or list of publications is not required. A Web page address is helpful.
- **Evaluation** – How will the results of this project be evaluated?
- **Use of Microsoft technologies** – Describe the Microsoft tools and technologies to be used in this project. If software is to be developed, give details of the tools to be used, the number of software developers, and the proposed timescale. Does the software to be developed require the incorporation of code from commercial or public-domain libraries? If so, please provide details. [Note that successful proposals are not required to use any Microsoft tools and/or technologies.]
- **Use of funds** – Provide a budget (in U.S. dollars) describing how the award will be used. Any Microsoft software or licenses requested should be listed in the budget, but the cost for such software or licenses should be listed as zero dollars. The budget does not have to be detailed, and should be presented as a table with the total budget request clearly indicated.

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- **Other support** – Include other contributions to this project (cash, goods, or services), if any, but do not include such things as use of university facilities otherwise provided on an ongoing basis. **Please note:** Authors of winning proposals will be required to submit an original letter on department letterhead certifying the commitment of any additional or matching support described in the proposal.

Proposals will be peer-reviewed by a panel of experts chosen by Microsoft Research and Microsoft Visual Studio. Based on evaluations by the review panel, Microsoft Research will select the most worthy proposals for funding.

All proposals will be evaluated based upon the following criteria:

- **Well-defined goals and objectives** that, if achieved, have the potential to have a significant impact on the software engineering community. These goals must be achievable within the timescale of the funded project, and, where appropriate, placed into the context of milestones in a larger or longer-running project.
- **Potential for wide dissemination and use** of intellectual property created, including specific plans for publications, conference presentations, distance learning, and so on, as well as plans to distribute content in multiple formats or languages. Microsoft encourages proposals to openly disseminate tools, technologies, processes, and educational materials.
- **Ability to complete the project**, including the adequacy of resources available, reasonableness of timelines, and number and qualifications of identified contributors.
- **Qualifications of Principal Investigator**, including previous history of work in the area, successful completion of previous funded projects, teaching awards, books published, and so on.

CONTACTS

NOM DU CONTACT ET COORDONNÉES DE L'ENTREPRISE

If you have questions related to this RFP, please send an e-mail message to seif@microsoft.com

Ou bien contacter:
Pierre-Louis Xech plxech@microsoft.com
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92130 Issy-les-Moulineaux

MODE DE RETRAIT DU DOSSIER (SI APPLICABLE)

Online at <http://research.microsoft.com/en-us/collaboration/focus/cs/seif.aspx>

PRÉSENTATION DE LA POLITIQUE DE RECHERCHE PARTENARIALE DU GROUPE

<http://research.microsoft.com/en-us/collaboration/about/default.aspx>