2ND CALL FOR PROPOSALS

Closing date: 11th January 2018, 16:00h   Funded by the National Cyber Security Centre (NCSC)

SUMMARY

The Research Institute in Verified Trustworthy Software Systems is inviting proposals for research on program analysis, testing and verification, in particular on work seeking to develop fundamental theories and industrial-strength tools that target real-world applications.

This call is for approximately £0.5M to be spent between **1st April 2018 - 31st March 2019**, funded by the National Cyber Security Centre (NCSC). This call also includes proposals for PhD studentships that extend for 3.5 years. Other projects extending for longer periods of time will also be considered.

BACKGROUND

The Research Institute in Verified Trustworthy Software Systems (VeTSS, http://vetss.org.uk), hosted at Imperial College London, is a UK Academic Research Institute in Cyber Security, funded by the Engineering and Physical Sciences Research Council (EPSRC) from March 2017 until February 2022.

Modern software systems comprise components constructed by many parties, from individual open-source developers to companies and government organisations spanning the globe. They are written in multiple complex languages, depend on the correctness of sophisticated third-party libraries, exploit concurrency and distribution to handle vast data sets, and require frequent source code updates. Traditional methods for ensuring software reliability are no longer adequate in this modern context. Novel techniques that can provide trust, in the deep technical sense of analysis and verification, are vital not only to making software safe, but also to giving stability to this international software infrastructure. The purpose of VeTSS is to address this challenge by bringing together and supporting world-class UK academics and industrialists with the common interest in embedding analysis and verification into the heart of the software design process.

THIS CALL

The expectation is that VeTSS will receive £0.5M per year, for five years, from NCSC to fund research projects. VeTSS will use this funding to support excellent projects that are perhaps more difficult to fund through, for example, EPSRC and industry. Our constraint is that each year of funding has to be spent within that year. We are able to allocate funding for future years now. However, we have to balance this with having funds for other years. This call for £0.5M is primarily to fund projects between 1st April 2018 and 31st March 2019. However, PhD studentships for 3.5 years are encouraged, and other proposals extending for longer periods of time will be considered.

Examples of possible projects include:

- PhD studentships for UK, EU and overseas students for 3.5 years, up to the normal cost of an EPSRC PhD studentship - for overseas students, you or your institution must find the additional funding;

- projects transferring technology from academia to industry;

- projects on ambitious blue-sky research as a step towards more standard funding;

- projects bringing talented international PhD students, RAs and academics to spend time with UK research groups;

- continuity funding for projects previously funded by VeTSS and the former three-year Research Institute on Automated Program Analysis, although the expectation is that these projects will be further funded through EPSRC and industry.

The first call was highly competitive. Successful proposals must describe excellent work. They should also provide evidence of engagement with the international academic or industrial community specialising in analysis, testing and verification, or the UK industrial community interested in applying such techniques to industrial practice.

APPLICATION GUIDELINES.

The application process for this call is deliberately lightweight. The submission should contain:

- A 2-page project proposal with an additional page for references, following EPSRC formatting guidelines: the font should be 11 point Arial or Helvetica, with 2 cm margins.

- 2-page CVs of the investigators and named researchers.

- A 1-page detailed breakdown of costs with justification including, for example, investigator time, equipment, travel and expenses. Prices should be quoted without VAT. The research will be funded at 100% Full Economic Cost.

ELIGIBILITY AND CONDITIONS

Applicants must be based in institutions eligible to apply for EPSRC funding. Only one proposal will be accepted per PI. Grants will not be made retrospectively.

The investigators of projects funded in this call are expected to become core members and play an active role in VeTSS. They are required to complete a final report.

The funders are committed to full and open publication of the research outputs of VeTSS in line with normal academic practice. The funding and contract will be under the NCSC's standard terms and conditions; a draft copy of the contract can be made available on request.

APPLICATION AND SELECTION

Applications should be sent to Teresa Carbajo Garcia by *16h on Thursday, 11th January 2018.*

Proposals will be assessed by a panel of analysis, testing, and verification experts from academia, industry and government, who will judge the proposals on quality, viability and significance.

Enquiries regarding the academic scope and objectives of this call should be directed to Dr Petar Maksimovic, Academic Program Manager of VeTSS. Enquiries regarding the application process should be addressed to Teresa Carbajo Garcia, Administrative Program Manager of VeTSS.

KEY DATES:

CALL PUBLISHED	*31st October 2017*
PROPOSALS SUBMITTED	*11th January 2018 by 16:00h*
RESULT ANNOUNCEMENT	*By 5th February 2018*
RESEARCH PERIOD	*1st April 2018 – flexible end-date*