

CALL FOR PROPOSALS

Closing date: 17th July, 2017, 9:00 AM

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 seeking to develop fundamental theories and industrial-strength tools that target real-world applications.

This initial call is for approximately £0.5M to be spent between **1st August 2017 and 31st March 2018**, funded by the National Cyber Security Centre (NCSC). There is no flexibility regarding the end date for this funding.

In future, the intention is for annual calls to be announced in October for projects starting in April or later. Proposals for this initial call can be written with this in mind.

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. VeTSS succeeds the previous three-year Research Institute in Automated Program Analysis and Verification (RIAPAV, <http://verificationinstitute.org>).

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 unified by a common interest in program analysis, testing, and verification. VeTSS stands at the forefront of research developments in fundamental theories and industrial-strength tools, targeting real-world applications.

The expectation is that VeTSS will receive funding of £0.5M per year 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. The plan is to have annual calls in October for projects starting in April of the following year.

THIS INITIAL CALL

This initial call for £0.5M is to fund small projects between 1st August 2017 and 31st March 2018. There is, unfortunately, no flexibility regarding the end date for this funding. However, proposals can be written to dovetail with the October call in 2017, which will provide funding that can start on 1st April 2018.

Examples of possible projects include: projects transferring technology from academia to industry; small projects on ambitious blue-sky research as a step towards more standard funding; continuity funding for projects previously funded by RIAPAV; and projects to bring talented international PhD students, RAs and academics to spend time with UK research groups.

Proposals should 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 initial 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 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 **9.00 am on Monday 17th July**.

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

19th June 2017

PROPOSALS SUBMITTED

17th July 2017 by 9.00 am

RESULT ANNOUNCEMENT

By 31st July 2017

RESEARCH PERIOD

1st August 2017 (or as soon as possible) - 31st March 2018