

Firmware Binary Code Analysis for Vulnerability Detection

<i>Type of award</i>	PhD Research Studentship
<i>Department</i>	Computer Science, Cyber Security Research Group
<i>Scholarship Details</i>	Minimum £18,000 p.a. subject to eligibility status.
<i>Duration</i>	4 years
<i>Eligibility</i>	Home/EU applicants only
<i>Deadline</i>	1 October 2020

PhD Topic Background/Description

A PhD study offers a unique opportunity to develop in-depth skills and knowledge that will provide a springboard for further career progression. You will be part of the Bristol Cyber Security Group (<https://www.bristol.ac.uk/engineering/research/cyber-security/>), located within the Department of Computer Science. The group focuses on a wide spectrum of security topics, including software/system security, usable security, cyber-physical interface security. As a part of its CDT in cyber security, a unique interdisciplinary PhD programme, you will have opportunity to be part of an immersive training experience, in a cohort of the cyber security leaders of the future. The group maintains a good collaboration with industry that allows us to work on cutting-edge practical problem that matter! This PhD studentship will be conducted in partnership with Toshiba Research Europe Limited.

The University of Bristol PhD Experience and Benefits

- Enhanced tax-free stipends
- Membership of the top intentional research networks in the field
- Work closely with academic experts; our policy is to limit our PhD intake to no more than two per academic staff ever year
- Access to best in class equipment and facilities
- Research expenses and international conference attendance paid for
- Living in the #1 UK City (Sunday Times 2017)
- Joining an internationally leading group in one of the world's top 50 and UK top 10 ranked Universities (QS 2020)
- Industry sponsorship and placements
- Training in the state-of-art technologies
- Professional development through our Bristol Doctoral College
- Work and learn in a top 2 UK university with leading employers (Highfliers 2019) and a top 5 UK university for research (THE analysis of REF 2014).

Further Particulars

Candidate Requirements

Applicants must meet the entry requirements for the PhD Research programme they wish to apply to. Requirements can be found at <http://www.bristol.ac.uk/study/postgraduate/2020/eng/phd-computer-science/> including English Language.

Basic skills and knowledge required:

- **Essential:** Excellent programming skills (C, python), understanding of low-level code vulnerability, computer architecture, good understanding of ABI, Intel/ARM/RISC-V ISA.
- **Desirable:** A background understanding in one or more of the following:
- Static/dynamic program analysis, machine learning, hardware assisted monitoring.

Scholarship Details

This is a fully funded 4-year studentships covering:

- Minimum £18,000 tax-free stipend per year for living expenses
- tuition fees at UK/EU student rates
- equipment and travel allowance to support research related activities.

For EPSRC funding, students must meet the [EPSRC residency requirements](#).

Informal enquiries

Please email Dr Sanjay Rawat (sanjay.rawat@bristol.ac.uk)

For general enquiries, please email sceem-pgr-admissions@bristol.ac.uk

Application Details

Prior to any application please contact Dr Sanjay Rawat to discuss your research proposal to see if it aligns with his current research. No indication of an offer can be made until a completed application has been received.

To apply for this studentship submit a PhD application using our [online application system](#) [www.bristol.ac.uk/pg-howtoapply]

Please ensure that in the Funding section you tick “I would like to be considered for a funding award from the Computer Science Department” and specify the title of the scholarship in the “other” box below along with “Bristol Cyber Security Group” and the name of the supervisor. Interested candidates should apply as soon as possible.

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