Propose a vacation student project for Summer 2019

Deadline for making your proposal(s): 17:00 Friday 22 March 2019. This is a hard deadline.

This form is for one project proposal, so to propose multiple projects please submit a separate form for each project. Any queries, do ask - Toby.

Project supervisor email *

dirk.koch@manchester.ac.uk

Title of the project *

FPGA Virus Scanner

Source of funding *

- School funding requested
- You have your own funding (e.g. research grant)

Objective of the project *

FPGAs are now widely offered by cloud service providers and this project will build a virus scanner for FPGA configuration data that will detect short circuits and other malicious constructs.

Number of students requested (justify if > 1) *

2 because of different aspects the scanner shall look into.

Start date, end date, total duration (weeks) *

May 13 - July 31 (11 weeks)
The benefit to the School *
Research outcome, extra training for students

The benefit to the student *
learning about hardware security, learning about FPGA technology

Skills needed by the student. *
Good programming and software engineering skills

Details of the work that the student would do *
The project will implement a mixture of parsers and graph algorithms.

Infrastructure requirements and any required staff support other than the project supervisor *
Normal school machine in any lab will do the job.

Supervision arrangements throughout the duration of the project (named staff and dates covering the entire duration) *
Dirk Koch, Khoa Pham, Anuj Vaishnav

Location of the project work (building/room) NB projects must be on-campus *
any lab will do the job