

## Undergraduate and PGT Application

### START HERE - Basic Information

This form must be completed for all student projects.

#### Before you proceed

Some activities inherently involve increased risks or approval by external regulatory bodies, so a proportional ethics review is not recommended and a full ethical review may be required.

These may include:

- i. Approval from an external regulatory body (including, but not limited to: NHS (HRA), HMPPS etc.);
- ii. Misleading participants;
- iii. Research without the participants' consent;
- iv. Clinical procedures with participants;
- v. The ingestion or administration of any substance to participants by any means of delivery;
- vi. The use of novel techniques, even where apparently non-invasive, whose safety may be open to question;
- vii. The use of ionising radiation or exposure to radioactive materials;
- viii. Engaging in, witnessing, or monitoring criminal activity;
- ix. Engaging with, or accessing terrorism related materials;
- x. A requirement for security clearance to access participants, data or materials;
- xi. Physical or psychological risk to the participants or researcher;
- xii. The project activity takes place in a country outside of the UK for which there is currently an active travel warning issued by the authorities (see info button);
- xiii. Animals, animal tissue, new or existing human tissue, or biological toxins and agents.

**If any of these activities are fundamental to your project, please contact your supervisor to determine if a full application is required.**

This form must be completed for each research project which you undertake at the University. It must be approved by your supervisor (where relevant) PRIOR to the start of any data collection.

In completing this form, please consult the University's [ACADEMIC ETHICAL FRAMEWORK](#) for ethical research.

A1 Please confirm that you will abide by the University's Academic Ethical Framework in relation to this project.

- ☒ Yes  
☐ No

A2 Are you submitting this application as a learning experience, for a unit which already has ethical approval? (please confirm with your supervisor)

- ☒ Yes  
☐ No

A2.1 Approval reference (supplied by your supervisor)

A3 Student details

Title

First Name

Surname

Thomas Lee

Scott

Email

thomas.l.scott@stu.mmu.ac.uk

A4 Supervisor

Title

First Name

Surname

Dr

Amna

Eleyan

Faculty

Science and Engineering

Telephone

0161 247 1457

Email

A.Eleyan@mmu.ac.uk

A5 Which Faculty is responsible for the project?

Science and Engineering

A6 Course title

6G6Z1101 Project

A7 Project title

CoAP based IoT data transfer from a Raspberry Pi to Cloud

A8 What is the proposed start date of your project?

19/10/2018

A9 When do you expect to complete your project?

23/08/2019

A10 Please describe the overall aims of your project (3-4 sentences). Research questions should also be included here.

The aim of this project is to investigate the implementation of Constrained Application Protocol (CoAP) technology and how to use CoAP to send data to the cloud. How can CoAP be used to send data from a device to the cloud.

A11 Please describe the research activity

A sensor will be connected to a Raspberry Pi device. This device will then be used to collect sensor data. This data will then be sent from the Raspberry Pi to a cloud service using the Constrained Application Protocol (CoAP). Research will be conducted on how to implement the use of CoAP on a Raspberry Pi. Investigation involves how the protocol sends the data and how the cloud can receive data using the protocol. Further investigation into the use of CoAP will be done through literature review.

A12 Please provide details of the participants you intend to involve (please include information relating to the number involved and their demographics; the inclusion and exclusion criteria)

No participants, all data will be obtained from the sensor.

## Project Activity

B1 Are there any Health and Safety risks to the researcher and/or participants?

- ☐ Yes  
☒ No

B2 Please select any of the following which apply to your project

- ☐ Aspects involving human participants (including, but not limited to interviews, questionnaires, images, artefacts and social media data)  
☐ Aspects that the researcher or participants could find embarrassing or emotionally upsetting  
☐ Aspects that include culturally sensitive issues (e.g. age, gender, ethnicity etc.)  
☐ Aspects involving vulnerable groups (e.g. prisoners, pregnant women, children, elderly or disabled people, people experiencing mental health problems, victims of crime etc.), but does not require special approval from external bodies (NHS, security clearance, etc.)  
☐ Project activity which will take place in a country outside of the UK  
☒ None of the above

B2.4 Is this project being undertaken as part of a larger research study for which a Manchester Metropolitan application for ethical approval has already been granted or submitted?

- ☐ Yes  
☒ No

## Data

F1 How and where will data and documentation be stored?

Data will be stored on the Raspberry Pi device and on the cloud platform.

F2 Will you be collecting personal data or sensitive personal data as part of this project?

- ☐ Yes  
☒ No

## Additional Information

G1 Do you have any additional information or comments which have not been covered in this form?

- ☐ Yes  
☒ No

G2 Do you have any additional documentation which you want to upload?

- ☒ Yes  
☐ No

G2.1 Please attach a copy of any other materials relevant to this application

Type	Name	File Name	Date	Version	Size
Additional Documentation	RA_Project_SoftwareDevelopment_270918	RA_Project_SoftwareDevelopment_270918.pdf	18/10/2018 12:00:00 AM	1	369.0 KB

## Signatures

H1 I confirm that all information in this application is accurate and true. I will not start this project until I have received Ethical Approval.

- ☒ I confirm  
☐ I do not confirm

H2 Please notify your supervisor that this application is complete and ready to be submitted by clicking "Request" below. Do not begin your project until you have received confirmation from your supervisor - it is your responsibility to ensure that they do this.

**Signed:** This form was signed by Amna Eleyan (A.Eleyan@mmu.ac.uk) on 19/10/2018 13:33

H3 By signing this application you are confirming that all details included in the form have been completed accurately and truthfully.

**Signed:** This form was signed by Thomas Lee Scott (thomas.l.scott@stu.mmu.ac.uk) on 19/10/2018 14:14