# Ethical Approval Application Form

## 1. ADMINISTRATION DETAILS

**Researcher:**

Tun Jing Ang, Illya Chaban, Lee Voon Dic, Ze Yan Liow, Wenyu Shi

**School/Research Centre/Programme (as applicable**)

Department of Visual and Human-Centred Computing

**Title of Project:** Aquality 2.0

**Supervisor/Research Centre Director/Head of Department:**

John Loane

**Date:** 29th January 2021

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| **Type of research** | | | |
| **Undergraduate** | **Postgraduate** | **Staff member** | **External to DKIT** |
| **/** |  |  |  |

There is an obligation on the lead researcher to bring to the attention of the School Ethics Committee any issues with ethical implications not clearly covered by this application form.

## 2. APPLICATION FORM CHECKLIST

**Please complete the ethics application form below and provide additional information as attachments.**

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| --- | --- | --- |
| **My application includes the following documentation:** | **INCLUDED (mark as YES)** | **NOT APPLICABLE (mark as N/A)** |
| Recruitment advertisement |  | **N/A** |
| Participant Information Leaflet | **YES** |  |
| Participant Informed Consent form | **YES** |  |
| Questionnaire/Survey |  | **N/A** |
| Interview/Focus Group Questions | **YES** |  |
| Debriefing material |  | **N/A** |
| Evidence of approval to gain access to off-site location |  | **N/A** |
| Ethical Approval from external organizations.  If ethical approval from external organizations is pending give details below |  | **N/A** |
| Details | | |

## 3. PROJECT DETAILS

1. **Lay description (Maximum 200 words)**

Please outline, in terms that any non-expert would understand, what your research project is about, including what participants will be required to do. Please explain any technical terms or discipline-specific phrases.

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| Aquality 2.0 is a mobile application, it helps citizen scientists who get involved in the activities of Centre for Freshwater and Environmental Studies (CFES), record water sampling and determine water quality using Artificial Intelligent (AI) model to heighten the accuracy of data, the AI model helps to recognize the aquatic insects by uploading photos. Besides, Aquality 2.0 provides 2 extra information (water PH Value and temperature) to give citizen scientists more details on water quality, PH and temperature are collected by external sensors and send to citizen scientists.  Test participants will be required to carry out a test by using Application, such as creating a new water sampling by clicking ‘take new sample’ button and locating the river through searching river by location. Once the test run has been completed participants will be asked to join a Zoom meeting or Teams meeting and have a short conversation. |

1. **Research objectives (Maximum 150 words)**

Please summarise briefly the objectives of the research,

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| 1. To obtain user feedback to improve application and make sure the application achieves requirements.  2. To obtain user feedback on its easy to use on collecting water samples data and user friendly.  3. To make sure user have access to retrieve information of water sample data that has been collected.  4. To ensure users can navigate the application. |

1. **Research location and duration**

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| --- | --- |
| **Location(s)/Population\*** | DKIT, All |
| **Research start date** | February 2021 |
| **Research end date** | 30th September 2021 |
| **Approximate duration** | Sample Test Run Approx. 10 minutes.  Interview will take approx. 10 minutes. |

\* If location/Population other than DKIT campus/population, provide details of the approval to gain access to that location/population as an appendix.

## 4. PARTICIPANTS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **YES** | **NO** | **N/A** |
| **Do participants fall into any of the following special groups?** | **Minors (under 18 years of age)** |  | **/** |  |
| **People with learning or communication difficulties** |  | **/** |  |
| **Patients** |  | **/** |  |
| **People in custody** |  | **/** |  |
| **People engaged in illegal activities (e.g. drug-taking)** |  | **/** |  |
| **Have you given due consideration to the need for satisfactory Garda clearance?** | |  | **/** |  |

## 5. SAMPLE DETAILS

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| --- | --- |
| **Approximate number** | 10 individuals |
| **Where will participants be recruited from?** | Centre for Freshwater and Environmental Studies (CFES), DKIT, Public |
| **Inclusion Criteria** | CFES and any participating with CFES |
| **Exclusion Criteria** | People who are underage of the 18 at the time of the survey. |
| **Will participants be remunerated, and if so in what form?**  No. | |

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| **Justification for proposed sample size and for selecting a specific gender, age, or any other group if this is done in your research.**  10 individuals will be separated into 2 group, and each group have 5 participations. The one group is someone with relevant knowledge and another one is not.  Participations with professional knowledge but without computing background will help us to improve the flow of use and functionalities.  Participations without taking sampling knowledge will help us focused on useability and UI improvements. |

## 6. RISKS TO PARTICIPANTS

a) Please describe any risks to participants that may arise due to the research. Such risks could include physical stress, emotional distress, perceived coercion e.g. lecturer interviewing own students. Detail the measures and considerations you have put in place to minimize these risks.

No risk at the time of lock down in Level 5. But after the lock down, participants might be required run test besides the river, the personal security may be affected, such as fall in the water accidently. We set the wire of the sensors to be 1 meter long to ensure that participants will not fall into the water.

b) What will you communicate to participants about any identified risks? Will any information be withheld from them about the research purpose or procedure? If so, please justify this decision.

NO NEED at the time of lock down in Level 5. After the lock down, we will inform participants and prepare appropriate protective measures if they would like to help us to test the Application, we will accompany the participants until the end of the test to ensure their personal security. Besides if the weather will be unsuitable, we will have advance notice to participants and rearrange the test.

## 7. INFORMED CONSENT

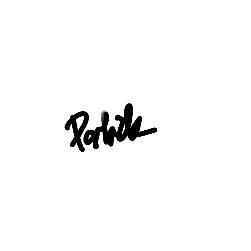
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| --- | --- | --- | --- |
|  | **YES** | **NO** | **N/A** |
| **Will you obtain active consent for participation?** | / |  |  |
| **Will you describe the main experimental procedures to participants in advance?** | / |  |  |
| **Will you inform the participants that their participation is voluntary and may be withdrawn at any point?** | / |  |  |
| **If the research is observational, will you ask for their consent to being observed?** |  |  | / |
| **With questionnaires, will you give participants the option of omitting questions they do not want to answer?** | / |  |  |
| **Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?** | / |  |  |
| **Will the data be anonymous?** | / |  |  |
| **Will you debrief participants at the end of their participation?** | / |  |  |
| **Will your project involve deliberately misleading participants in any way, or will information be withheld?**  **If you answer yes, give details and justification for doing this below.** |  | / |  |
|  | | | |

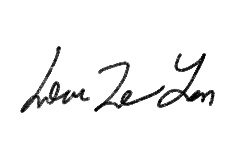
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| 1. **Please outline your approach to ensuring the confidentiality of data (that is, that the data will only be accessible to agreed upon parties and the safeguarding mechanisms you will put in place to achieve this.) You should include details on how and where the data will be stored, and who will have access to it.**   Rivers Data and sensors Data (gathered by users) , Personal information such as username, password Email address will be store in database which is set up on a AWS RDS (Amazon Relational Database System) and corresponding AWS security controls that can be applied to data stores on AWS. Users can access own basic information and samples, and authorized admin will have access to user information and hashed password.  All Data will be destroyed in the end of 30th September 2021, the AWS server will be shut down as well. |

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| 1. **Please outline how long the data will be retained for, if it will be destroyed and how it will be destroyed.**   The data will be stored during the research, a half academic year ending in 30th September 2021, in this time all data will be store in AWS RDS server. User has right to request own data, authorized admin has the access to data as well. Once the duration of the semester has finished the data will be destroyed using appropriate programs, the server will be shut down and AWS RDS server account will be canceled as well. |

## 8. DECLARATION

**I have read and understand the DkIT guidelines for ethical practices in research and have read and understand the data protection guidelines.**



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**Signed:**

**Name:** Lee Voon Dic, Illya Chaban, Ze Yan Liow, Tun Jing Ang, Wenyu Shi

**Date:** 29/01/2020

**(Researcher)**

**Signed:**  **Name:**

**Date:**

**(Supervisor/Research Centre Director/Head of Department)**

## 9. STATEMENT OF ETHICAL APPROVAL

**Supervisor/Research Centre Director/Head of Department**

This project has been considered using agreed procedures and is now approved/ referred to the Ethics Committee

**Signed:**  **Name:**

**Date:**

**Chair of Ethics Committee**

This project has been considered by the Ethics Committee and ethical approval is granted.

**Signed:**  **Name:**

**Date:**