SAS: Risk assessment and additional ethics information

Please complete this form as part of the ethics application process IF your project involves humans or other animals as participants (i.e. data is collected from them). This form is NOT required for other research projects.

Please consult the following link (or your Chair of Health and Safety) if you have questions about assessing risk for your project (e.g. completing additional forms such as COSHH): https://intranet.abertay.ac.uk/documents/forms/health-and-safety/. If you are a student, your supervisor and/or project module leader will advise you on these issues.

PLEASE SUBMIT THIS FORM AS AN ATTACHMENT AFTER COMPLETING THE ONLINE UNIVERSITY ETHICS FORM.

THIS FORM CONTAINS THREE SECTIONS (RISK, ADDITIONAL PROJECT INFORMATION, APPENDICES WITH UNIVERSITY TEMPLATES). PLEASE COMPLETE ALL SECTIONS AS REQUIRED. IF YOU HAVE ANY QUESTIONS ABOUT THIS FORM, PLEASE CONTACT THE COMMITTEE AT researchethics@abertay.ac.uk

This form must be adapted to suit your specific project (i.e. include all risks that are applicable to your project and delete risks that are not applicable).

For students: Please ensure that your project supervisor has checked and signed this form before submission. Please consult your supervisor if you have questions about this form.

Section A – Research Project Risk Assessment (Humans and nonhuman animals as subjects)

OVERVIEW

There is a legal requirement under Management of Health and Safety at Work Regulations (MHSWR) 1999 that a Risk Assessment is necessary to ensure that preventative and protective steps are being taken to control hazards in the workplace. The appropriate Control of Substances Harmful to Health (COSHH) and Bio-COSHH assessments should also be written to accompany this Risk Assessment, and where required, Abertay Human Tissue and Product Code (HTPC) Annex and Genetically Modified Organisms (GMO) approval obtained.

This Risk Assessment should be used for all research and teaching activities ('work') undertaken by the School of Applied Sciences, including traditional or 'wet' laboratories and food, psychology and sport-related activities which may occur in specialist laboratories, rooms, and indoor or outdoor facilities. It can be completed by Honors project students, Post-Graduate Research Students, Research Assistants and Postdoctoral Researchers, but it must be counter-signed by the appropriate Module Leader, Principal Investigator or Supervisor.

Please take care to read each section and complete by over-typing or deleting as required.

Task or operation being assessed	Using AI and commodity sensors to support self-management of VR exposure therapy.
Purpose of work	Please describe the purpose of the proposed work in a short paragraph. Sufficient detail should be provided to put your assessment of risks in context in terms of place and activity.
Location of work	Off-campus at Flat 26 Camsey House, St. Matthews Road, Brixton, London, SW2 1SX
Who else might be affected	The only persons affected will be myself and any voluntary test subjects, which will most likely be limited to the three adults I live with.
Lone and after-hours working	Lone working will not be a hazard since all electronics used will be low current and low voltage. The biometric hardware used will all be non-invasive and easily removable by the user. The Oculus Rift has a 'guardian zone' function so that the user will know where the edge of the experimental area is based on the free space in a given area.
Other issues for consideration	(i) Indicate whether the work proposed here has an associated Human Tissue and Product Code Annex (HTPC) or Genetically Modified Organisms (GMO) approval. Please provide Project Title, Author, Submission and Revision Dates as appropriate in the box below. (ii) For research where data is collected from humans or non-human animals, please indicate that you will follow agreed experimental protocols and that you have read and understood our policy for GDPR in Research and will abide by the policy in the box below. (iii) It is possible that risks to co-workers may be increased if donors with an infectious disease provide blood, hair roots, saliva or buccal samples, or semen for analysis. You might consider asking potential donors to de-select themselves based on this consideration. (iv) Indicate whether allergies or other health matters, pregnant and nursing mothers, manual handling, and working at height issues need to be considered individually for those signing this form.

	(v) If your personal circumstances change, you must review this Risk Assessment accordingly. (vi) If the activities not connected with this Risk Assessment change in the place of work, perhaps because a new person is using the place, you may need review this Risk Assessment accordingly.
	Biometric data will be taken and experimental protocols will be followed, especially in the context of GDPR ECG sensors will be used which have conductive gel applied which will make contact with the users skin.
Emergency contact details	Feras Hathaf +44 75355 10729
Author	Feras Hathaf
Date	28/10/2020
Assessment review period	One
Submission	*It is important that digital copies of completed and revised Risk Assessments are maintained by the University for Health and Safety auditing purposes, as well as to ensure the School's Health and Safety Policy and Responsibilities are properly undertaken. A new system is being developed to do this, but until it is available, please send a copy of this Risk Assessment to HSAssessments@abertay.ac.uk or place a copy on the School's V-drive.* *If this Risk Assessment is for teaching then it should be made available to students on BrightSpace and a printed copy provided in the laboratory.*

ASSESSMENT

(i) For the Level of Risk see the note at the end of this Risk Assessment.

(ii) Mandatory personal protective equipment (PPE) in the School's science laboratories includes laboratory coat and in our teaching kitchen areas it includes kitchen whites. Please indicate in the sections below if different or additional PPE (such as safety glasses, dust masks, hearing protectors, hard hats, high visibility jackets, etc.) is required.

(iii) Procedures that are not suitable for Lone Working or After Hours Working should be indicated by 'Not Appropriate for Lone Working or After-Hours Working'.

Hazard	*Control Measures to Reduce Hazard*	*Level of Risk*
Use of VR Head mounted display Motion sickness, confusion about how to interact	The user needs to be aware of how to properly wear and adjust the headset to their own requirements and how the controls function, they will be shown before the headset is worn. It is possible that the user may feel motion sickness if they had not previously experienced VR, they should be shown an introductory experience such as "First Contact" before assessing if they can deal with a VR environment.	Low
Exposure to a virtual form of a specific phobia An extreme phobic reaction	The user will complete a questionnaire to assess whether their phobia is extreme in which case they will be prevented from participating. It will be disclosed to participants - before the experience starts - what potential experiences/effects they may encounter so they know what to expect in terms of the user experience.	Medium
Global pandemic A significant interruption and hurdle in research and testing, personal illness	Hardware is required for this project and a lack of lab access will inhibit the prototyping stage of hardware development, equipment will need to be sourced as an alternative to university lab access. In the case of personal illness it would be necessary to self-isolate which may also hamper progress.	Medium
Biometric reading The sensor may not work as well/easily as expected, for example the output data is too noisy to extract useful data	Backup hardware will be acquired as well as fault finding equipment such as a digital multimeter and an oscilloscope. Ideally more reliable hardware would be acquired but this might not be possible due to financial constraints.	Medium
Design of exposure therapy The design of the proposed therapy might not be effective due to a lack of consulting from a psychological professional	Deeper research into exposure therapy techniques will be completed to ensure existing proven techniques are followed.	Medium
Management of Data Data loss	Version control system such as GitHub will be used to keep a backup of the developed software.	Medium
*Use the 'Insert row above' tool **in the row above** to add more sections as required.*		

SIGNATURES	*By signing, I confirm that I have written or read this document carefully and believe it to be a suitable and sufficient Risk Assessment of the work I will be undertaking or supervising, and that I agree to abide by it when working. I will review this Risk Assessment within the review period, or if circumstances change, and I will undertake to communicate this Risk Assessment with others who might be put at risk by the work described here.*	
Author	*Date*	*Signature*
Feras Hathaf	28/10/2020	
Module Leader, Principal Investigator or Supervisor if required	*Date*	*Signature*
Insert name.	Insert.	Insert a scanned signature rather than simply typing in your name.

ADDITIONAL SIGNATURES	*People other than the author of this Risk Assessment may make use of it if it is relevant to the work they are undertaking. By signing below, you are indicating that you have read this document carefully and believe it to be a suitable and sufficient Risk Assessment of the work you will be supervising or undertaking, and that you agree to abide by it when working. You are advised to obtain a digital copy of this document from the author and review it when appropriate.* *This section could be filled-in using a print copy if this is more appropriate (e.g. for a large class) rather than for a single researcher undertaking the same work.*	
Name	*Date*	*Signature*
*Use the 'Insert row above' tool **in the row above** to add more sections as required.*		

RECORD OF TRAINING

The proposed work may involve a degree of risk which could be substantially reduced by appropriate training, and the purpose of this section is to record all such training when required. A three-step training process is suggested, beginning with a demonstration by the Supervisor and finishing with the student or researcher undertaking the procedure with the Supervisor observing.

By signing below, you are indicating that you have provided or undertaken the training appropriately, and that you will abide by the procedures or protocols established in this Risk Assessment and other related documentation when working. A digital or printed copy of the training record should be kept by the Supervisor.

Please make alterations below as appropriate by following the format and over-typing text provided.

If this section is not required, simply delete this table.

Procedure or protocol	*Date Completed*	*Student's Name and Signature*	*Student's Name and Signature*
Insert name of procedure.			
Stage 1 – Completed with the Supervisor demonstrating all stages.	Insert date.	Insert a scanned signature rather than simply typing in your name.	Insert a scanned signature rather than simply typing in your name.
Stage 2 – Completed under the direction of the Supervisor.	Insert date.	Insert a scanned signature rather than simply typing in your name.	Insert a scanned signature rather than simply typing in your name.
Stage 3 – Completed with the Supervisor observing.	Insert date.	Insert a scanned signature rather than simply typing in your name.	Insert a scanned signature rather than simply typing in your name.
*Use the 'Insert row above' tool **in the row above** to add more sections for each procedure which requires a record of training (insert four new rows per procedure, and reduce the columns across the top row into one using the 'Merge cells' tool).*			

DETERMINING THE LEVEL OF RISK

In order to calculate the level of risk for each hazard, you must first consider the likelihood of the risk (low, medium and high) and then the severity of the hazard itself (low, medium and high), using the table below:

		Likelihood		
		Low	*Medium*	*High*
Severity	*Low*	LOW	LOW	MEDIUM
	Medium	LOW	MEDIUM	HIGH
	High	MEDIUM	HIGH	HIGH