

Final Project Ethics Form

by Oliver Bunyan

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APPLICATION FOR ETHICAL APPROVAL

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically.

The University follows the OECD Frascati manual definition of **research activity**: “creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications”. As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the “principal researcher”.

This form must be completed and approved prior to undertaking any research activity.

SECTION A: About You (Principal Researcher)

1	Full Name:	Oliver Bunyan
2	Student Number:	2116739
3	Email address:	Oliverbunyan@hotmail.co.uk
4	Programme of Study:	Electrical and Electronic Engineering
5	Director of Studies/Supervisor:	Stephen Mosey

SECTION B: Internal and External Ethical Guidance Materials

	Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.		
1	UWTSD Research Ethics & Integrity Code of Practice	☒	
2	UWTSD Research Data Management Policy	☒	
3		☐	

SECTION C: External Collaborative Research Activity

If there are no external collaborators then leave this section blank and continue to section D

1	Does the research activity involve collaborators outside of the University?	YES	☐	NO	☒
	If Yes, please provide the name of the external organisation and name and contact details for the main contact person and confirmation this person has consented to their personal data being shared as part of this collaboration.				
2	Institution				
3	Contact person name				
4	Contact person e-mail address				
5	Has this individual consented to sharing their details on this form?	YES	☐	NO	☐

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6	Has permission to undertake the research has been provided by the partner organisation?	(If YES attach copy) If NO the application cannot continue	YES	☐	NO	☐
7	Does this organisation have its own ethics approval system that applies to this research?		YES	☐	NO	☐
If Yes, please attach a copy of any final approval (or interim approval) from the organisation (this may be a copy of an email confirming any such approval).						

SECTION D: Details of Research Activity

1	Indicative title:	Installing a Safety Interlock System within the blast furnace in Tata Steel Port Talbot				
2	Proposed start date:	04/09/2022	Proposed end date:	02/04/2023		
Introduction to the Research (maximum 300 words in each section) Ensure that you write for a <u>Non-Specialist Audience</u> when outlining your response to the three points below: • <i>Purpose of Research Activity</i> • <i>Proposed Research Question</i> • <i>Aims of Research Activity</i> • <i>Objectives of Research Activity</i> Demonstrate, briefly, how Existing Research has informed the proposed activity and explain • <i>What the research activity will add to the body of knowledge</i> • <i>How it addresses an area of importance.</i>						
3	Purpose of Research Activity The purpose of the research activity is to create a safety interlock system within the blast furnace in Tata Steel Port Talbot. The system is designed to create a safer procedure of how the molten steel is moved and placed with the torpedo systems to move on to the next process of steel making. With the use of PLC's and equipment, a ladder logic can be created to ensure that the right checkpoints are met before the process can be progressed, (this box should expand as you type)					
4	Research Question The question that is to be asked is how the safety system is going to be designed and to what category of safety. Using relevant standards and Safety certified machinery that meets with Tata's requirements. Using the correct equipment and ensuring that the system is designed to meet the clients demands. (this box should expand as you type)					
Y	Aims of Research Activity Aim is to design a safety system that meets the SIL requirements of the clients requests and massively improves the safety of the process of moving the molten steel to the next step of the steel making process. (this box should expand as you type)					
6	Objectives of Research Activity Objectives to meet my aim is to research into different SIL category ratings and ensure that the correct equipment is chosen that's required. Research into different methods of creating safety interlock systems and implement them within my design for the client. (this box should expand as you type)					
Proposed data collection methods (maximum 600 words)						

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	Provide a brief summary of all the methods that may be used in the research activity to collect data, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. You do not need to justify the methods here, but should instead describe how you intend to collect the data necessary for you to complete your project.
7	I will be collecting data for research by using the internet and libraries to find the relevant information to help with the design of this project. With the aid of the internet as well as books and journals this will allow me to gather relevant information and use this to my advantage while designing a safety interlock system. (this box should expand as you type)

SECTION E: Scope of Research Activity

	Will the research activity include:	YES	NO
1	Use of a questionnaire or similar research instrument?	☐	☒
2	Use of interviews?	☐	☒
3	Use of focus groups?	☐	☒
4	Use of participant diaries?	☐	☒
5	Use of video or audio recording?	☐	☒
6	Use of computer-generated log files?	☐	☒
7	Participant observation with their knowledge?	☐	☒
8	Participant observation without their knowledge?	☐	☒
9	Access to personal or confidential information without the participants' specific consent?	☐	☒
10	Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☐	☒
11	Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
12	Investigation of participants involved in illegal activities?	☐	☒
13	Use of procedures that involve deception?	☐	☒
14	Administration of any substance, agent or placebo?	☐	☒
15	Working with live vertebrate animals?	☐	☒
16	Procedures that may have a negative impact on the environment?	☐	☒
17	Other primary data collection methods. Please indicate the type of data collection method(s) below.		
	Details of any other primary data collection method:	☐	☒
	(this box should expand as you type)		

If you have ticked NO to every question then the research activity is (ethically) low risk and you may skip section F and continue to section G.

If you have ticked YES to any question, then no research activity should be undertaken until full ethical approval has been obtained. You should continue to section F.

SECTION F: Intended Participants

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Who are the intended participants:		YES	NO
1	Students or staff at the University?	☐	☒
2	Adults (over the age of 18 and competent to give consent)?	☐	☒
3	Vulnerable adults?	☐	☒
4	Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)	☐	☒
5	Prisoners?	☐	☒
6	Young offenders?	☐	☒
7	Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?	☐	☒
8	People engaged in illegal activities?	☐	☒
9	Others. Please indicate the participants below, and specifically any group who may be unable to give consent.	☐	☒
Details of any other participant groups: (this box should expand as you type)			

Participant numbers and source	
Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?	
10	How many participants are expected? (this box should expand as you type)
11	Who will the participants be? (this box should expand as you type)
12	How will you identify the participants? (this box should expand as you type)

Information for participants:		YES	NO	N/A
13	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☐	☐	☒
14	Will you tell participants that their participation is voluntary?	☐	☐	☒
15	Will you obtain written consent for participation?	☐	☐	☒
16	Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☐	☐	☒
17	If the research is observational, will you ask participants for their consent to being observed?	☐	☐	☒
18	Will you tell participants that they may withdraw from the research at any time and for any reason?	☐	☐	☒
19	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☐	☐	☒
20	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☐	☐	☒
21	Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?	☐	☐	☒

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22	If NO to any of above questions, please give an explanation
	<i>(this box should expand as you type)</i>

Information for participants:		YES	NO	N/A
24	Will participants be paid?	☐	☐	☒
25	Is specialist electrical or other equipment to be used with participants?	☐	☐	☒
26	Are there any financial or other interests to the investigator or University arising from this study?	☐	☐	☒
27	Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	☐	☒
28	If YES to any question, please provide full details			
	<i>(this box should expand as you type)</i>			

SECTION G: Anticipated Risks

	Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them.	
1	Risks to participants For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information. If you have identified in section D that there are no participants then enter N/A and go skip to question 3.	
	Risk to participants: N/A <i>(this box should expand as you type)</i>	How you will mitigate the risk to participants: <i>(this box should expand as you type)</i>
2	If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities	
	N/A <i>(this box should expand as you type)</i>	
3	Risks to the investigator For example: personal health & safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest	
	Risk to the investigator: N/A <i>(this box should expand as you type)</i>	How you will mitigate the risk to the investigator: <i>(this box should expand as you type)</i>
4	University/institutional risks For example: adverse publicity, financial loss, data protection	
	Risk to the University: N/A <i>(this box should expand as you type)</i>	How you will mitigate the risk to the University: <i>(this box should expand as you type)</i>
5	Environmental risks For example: accidental spillage of pollutants, damage to local ecosystems	
	Risk to the environment:	How you will mitigate the risk to environment:

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(this box should expand as you type)	(this box should expand as you type)
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SECTION H: Feedback, Consent and Confidentiality

If you have identified in section E that there are no participants then skip this section and continue to section I.

1	Feedback	What de-briefing and feedback will be provided to participants, how will this be done and when? (this box should expand as you type)
2	Informed consent	Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation. (this box should expand as you type)
3	Confidentiality / Anonymity	Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case. (this box should expand as you type)

SECTION I: Data Protection and Storage

	Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 “GDPR” and the Data Protection Act 2018 “DPA”)?	YES	NO
1	<i>“Personal data” means any information relating to an identified or identifiable natural person (‘data subject’). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants is considered to be personal data.</i>	☐	☒
	If YES, provide a description of the data and explain why this data needs to be collected:		
2	(this box should expand as you type)		
	Does it involve special category data (as defined by the GDPR)?	YES	NO
3	<i>“Special category data” means sensitive personal data consisting of information as to the data subjects’ –</i> (a) racial or ethnic origin, (b) political opinions, (c) religious beliefs or other beliefs of a similar nature, (d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992), (e) physical or mental health or condition, (f) sexual life, (g) genetics, (h) biometric data (as used for ID purposes),	☐	☒
	If YES, provide a description of the special category data and explain why this data needs to be collected:		

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4	
	<i>(this box should expand as you type)</i>

	Will data from the research activity (collected data, drafts of the thesis, or materials for publication) be stored in any of the following ways?	YES	NO
5	Manual files (i.e. in paper form)?	☐	☒
6	University computers?	☐	☒
7	Private company computers?	☐	☒
8	Home or other personal computers?	☒	☐
9	Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☒	☐
10	"Cloud" storage or websites?	☐	☒
11	Other – specify:	☐	☒
12	For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of backup procedures, password protection, encryption, anonymisation and pseudonymisation:		
	Data will be stored on a personal laptop that is password-protected, a backup of the data will also be used and will also be password-protected, therefore all data will stored with maximum confidentiality.		
	<i>(this box should expand as you type)</i>		

Data Protection			
	Will the research activity involve any of the following activities:	YES	NO
13	Electronic transfer of data in any form?	☐	☒
14	Sharing of data with others at the University outside of the immediate research team?	☐	☒
15	Sharing of data with other organisations?	☐	☒
16	Export of data outside the UK or importing of data from outside the UK?	☐	☒
17	Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☐	☒
18	Publication of data that might allow identification of individuals?	☐	☒
19	If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and/or any international equivalent):		
	<i>(this box should expand as you type)</i>		
20	List all who will have access to the data generated by the research activity:		
	The people who will have access will be myself (Oliver Bunyan) and The Supervisor Stephen Mosey.		
	<i>(this box should expand as you type)</i>		
21	List who will have control of, and act as custodian(s) for, data generated by the research activity:		
	Stephen Mosey		
	<i>(this box should expand as you type)</i>		
22	Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form.		

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	All Data will be stored on a password protected computer and a password protected USB stick so that there are back up copies. The data will be stored until the project is completed before being deleted. <i>(this box should expand as you type)</i>	
22	Confirm that you have read the UWTSD guidance on data management (see https://www.uwt.ac.uk/library/research-data-management/)	☒
23	Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding	☒

SECTION J: Declaration

	The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants. In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: https://www.uwt.ac.uk/research/research-ethics/		
1	Signature of applicant:		Date: 20/10/23
2	Director of Studies/Supervisor:	Stephen Mosey	Date:
3	Signature:		

FOR INTERNAL USE ONLY:

	Ethical approval given	
1	Signature of assessor:	Date:
2	Name:	
3	Role:	

Final Project Ethics Form

GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

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