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:	Suhaana Kapali
2	Student Number:	2538421
3	Email address:	Suhaana.0008@gmail.com
4	Programme of Study:	MSc Data and Artificial Intelligence
5	Supervisor:	Dr. Aliyu Sambo

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		☐
4		☐

SECTION C: Details of Research Activity

1	Indicative title:	MSc Research Proposal for Automated Compliance Monitoring and Circular Intelligence within SUEZ Operations		
2	Proposed start date:	1/07/2026	Proposed end date:	14/07/2026

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:

- *Purpose of Research Activity*
- *Proposed Research Question*
- *Aims of Research Activity*

	• *Objectives of Research Activity* Demonstrate, briefly, how **Existing Research** has informed the proposed activity and explain • *What the research activity will add to the body of knowledge* • *How it addresses an area of importance.*
3	**Purpose of Research Activity** The purpose of this research is to develop and evaluate an Artificial Intelligence AI based framework for improving Environmental, Social, and Governance ESG data management and sustainability reporting within SUEZ operations. The proposed system aims to automate the collection, verification, and organization of ESG data using AI techniques, including natural language processing NLP and machine learning. The research seeks to improve the accuracy, efficiency, and transparency of sustainability reporting while reducing manual effort and supporting compliance with the EU Taxonomy. It also aims to demonstrate how AI can help organizations make better decisions through more reliable ESG data management. (this box should expand as you type)
4	**Research Question** How can an AI based framework improve ESG data management and automate sustainability reporting within SUEZ operations? **Sub-Questions** What are the current challenges in ESG data management at SUEZ? How can AI techniques improve ESG data collection and verification? How can the proposed framework support accurate and efficient sustainability reporting? What are the potential benefits and limitations of implementing the proposed AI framework? (this box should expand as you type)
5	**Aims of Research Activity** Number your aims and link them to your objectives The aim of this research is to design and evaluate an Artificial Intelligence AI based framework for improving Environmental, Social, and Governance ESG data management within SUEZ operations. The study aims to investigate how AI techniques, including Natural Language Processing NLP and Machine Learning ML, can automate the collection, verification, and organization of ESG data to support accurate and efficient sustainability reporting. The research also aims to develop a prototype dashboard that demonstrates how AI can reduce manual reporting, improve data accuracy, support compliance with the EU Taxonomy, and assist organizations in making better sustainability related decisions. (this box should expand as you type)
6	**Objectives of Research Activity** • To examine the current challenges in ESG data management within SUEZ operations. • To design an AI based framework for automating ESG data collection, verification, and organization. • To develop a prototype system using Natural Language Processing NLP and Machine Learning ML techniques. • To design an interactive dashboard for visualizing ESG metrics and sustainability performance. • To evaluate how the proposed framework can improve the accuracy and efficiency of sustainability reporting. • To assess how the framework can support compliance with the EU Taxonomy.

	To identify the potential benefits and limitations of implementing an AI driven ESG reporting system in a waste management organization. (this box should expand as you type)
	Proposed data collection methods (maximum 600 words) This research will adopt a qualitative case study approach using secondary data and a prototype evaluation to investigate how Artificial Intelligence AI can improve Environmental, Social, and Governance ESG data management and sustainability reporting within SUEZ operations. The primary data source will consist of publicly available documents, including SUEZ sustainability reports, annual reports, ESG disclosures, corporate publications, and publicly available datasets. In addition, academic journal articles, conference papers, books, and official publications from organizations such as the European Commission and the International Organization for Standardization ISO will be reviewed to establish the theoretical background and identify current challenges in ESG reporting. These sources will provide the information required to understand existing reporting practices and support the development of the proposed AI framework. Following the literature review, an AI based prototype will be developed using Python, Natural Language Processing NLP, and Machine Learning ML techniques. The prototype will be designed to automate the collection, verification, and organization of ESG related information and present the processed data through an interactive dashboard. To evaluate the practicality of the proposed framework, a small purposive sample of approximately 5 to 10 participants will be recruited. Participants will include sustainability professionals, ESG analysts, environmental managers, or data analysts with experience or knowledge of ESG reporting and sustainability management. These participants will be selected because they possess relevant expertise and can provide informed feedback on the proposed system. Data will be collected through a structured questionnaire containing Likert scale and open ended questions, together with semi structured interviews. The questionnaire will assess participants' perceptions of the prototype's usability, accuracy, usefulness, and practicality, while the interviews will provide more detailed insights into the strengths, limitations, and potential improvements of the proposed AI framework. Participation will be voluntary, informed consent will be obtained before data collection, and all responses will be anonymized to protect participant confidentiality. The collected feedback will be analysed using thematic analysis for qualitative responses and descriptive statistics for questionnaire results. The findings will then be compared with the objectives of the study to determine whether the proposed AI framework has the potential to improve ESG data management, enhance reporting accuracy, reduce manual effort, and support compliance with the EU Taxonomy. Overall, this mixed approach of document analysis, prototype development, and expert evaluation will provide a comprehensive assessment of the feasibility and effectiveness of using AI to automate ESG data management within SUEZ operations.
7	This should describe how you intend to collect data. It should not include a discussion of the theoretical basis for your data collection methods. Please note, that if you intend to collect any audio/video recordings of interviews with participants then these will be classified as Personal Data under GDPR/DPA2018. If you intend to use these then note this in section H. (this box should expand as you type)

SECTION D: 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 E and continue to section F.

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION E: Intended Participants

	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: Complete this only if your participants cannot give consent. This includes animals (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?	Ballpark figures are fine but make sure that you explain how you will identify and contact your participants. Approximately 5–10 participants are expected to take part in this study. Participants will be recruited using purposive sampling because they have relevant knowledge of ESG reporting, sustainability management, Artificial Intelligence, or data analytics. Potential participants will be contacted through professional networks, LinkedIn, email, and university contacts and invited to participate voluntarily. *(this box should expand as you type)*
11	Who will the participants be?	The participants will be adults 18 years or older who have knowledge or experience in Environmental, Social, and Governance (ESG) reporting, sustainability management, Artificial Intelligence, or data analytics. Participants may include sustainability professionals, ESG analysts, environmental managers, data analysts, and postgraduate students or academic staff with relevant expertise. *(this box should expand as you type)*
12	How will you identify the participants?	Participants will be identified through purposive sampling. Individuals with relevant knowledge or professional experience in ESG reporting, sustainability, Artificial Intelligence, or data analytics will be identified through university networks, professional contacts, and LinkedIn. Eligible participants will be invited via email or professional networking platforms, and participation will be entirely voluntary. *(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?	☒	☐	☐
22	If NO to any of above questions, please give an explanation			
	You should be able to tick YES for all of these questions. If not, then explain why not in this box. *(this box should expand as you type)*			

	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			
	You should be able to tick NO for most of these questions. For any cases that you have ticked YES then provide details in this box. If you are using cameras/voice recorders to record interviews, then please state that in this box. *(this box should expand as you type)*			

SECTION F: 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: There are always risks. Do not write N/A unless you have no participants. Participants may experience a small time commitment when completing the questionnaire or participating in the interview. They may also feel slightly uncomfortable when providing professional opinions or constructive criticism about the proposed AI framework. There is also a minor risk that professional views could be linked to individual participants if confidentiality is not maintained. *(this box should expand as you type)*	*How you will mitigate the risk to participants:* Participation will be entirely voluntary. Participants will receive a Participant Information Sheet explaining the purpose of the study before providing written informed consent. They may withdraw from the study at any time without giving a reason. All responses will be anonymised, stored securely, and reported only in aggregated form to protect participant confidentiality. *(this box should expand as you type)*
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	
	The research does not involve sensitive, offensive, or illegal topics. Questions will focus solely on participants' professional opinions regarding the proposed AI framework for ESG data management and sustainability reporting. Participants will not be asked to disclose confidential organisational information or personal data. If a participant feels uncomfortable, they may decline to answer any question or withdraw from the study without penalty. *(this box should expand as you type)*	
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: There are always risks. Do not write NA. The researcher may experience time management challenges while recruiting participants, conducting interviews, analysing data, and completing the project within the required timeframe. There is also a possibility of receiving limited participant responses, which may affect the evaluation stage *(this box should expand as you type)*	*How you will mitigate the risk to the investigator:* A structured research schedule will be followed throughout the project. Participants will be contacted well in advance, and regular meetings with the research supervisor will be held to monitor progress and resolve any issues. All interviews will be conducted professionally, either online or in a safe public location. *(this box should expand as you type)*
4	**University/institutional risks** For example: adverse publicity, financial loss, data protection	
	Risk to the University: There are always risks. Do not write NA. There is a small reputational risk if research data is not handled appropriately or if participant confidentiality is compromised. There is also a risk of non-compliance with the University's Research Ethics and Data Protection policies. *(this box should expand as you type)*	*How you will mitigate the risk to the University:* The research will comply with the UWTSD Research Ethics Policy, GDPR, and the Data Protection Act 2018. Participant information will be anonymised, securely stored on password-protected devices, and accessed only by the researcher and supervisor. Findings will be reported honestly without misrepresenting organisations or participants. *(this box should expand as you type)*
5	**Environmental risks** For example: accidental spillage of pollutants, damage to local ecosystems	
	Risk to the environment: The proposed research is computer-based and does not involve laboratory work, fieldwork, or activities that could directly harm the environment. Minor environmental impacts may arise from electricity consumption associated with computer use. *(this box should expand as you type)*	*How you will mitigate the risk to environment:* The research will be conducted digitally using electronic documents and online resources wherever possible to minimise paper usage. Computing resources will be used efficiently, and no hazardous materials or pollutants will be generated during the study. *(this box should expand as you type)*

SECTION G: Feedback, Consent and Confidentiality

If you have identified in section D that there are no participants, then enter skip this section and continue to section H.

1	**Feedback** What de-briefing and feedback will be provided to participants, how will this be done and when?

	You don't need to email your participants with your final report. A good alternative is to set up an email address that they will be able to contact for further details or results. At the end of their participation, participants will receive a short verbal or written debrief explaining the purpose of the research and how their feedback will contribute to the study. Participants will also be provided with the researcher's university email address if they wish to ask further questions or request a summary of the research findings after the project has been completed. Individual responses will not be shared with other participants. *(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.
	If you are using a paper questionnaire then you should have the participants sign an appropriate consent form. These forms will count as personal data and should be noted as such in section J. If you are using an online questionnaire, then you should have a screen before the questions start that acts as a consent form, informing participants that by clicking on the NEXT button they are providing consent. Before taking part, participants will receive a Participant Information Sheet explaining the purpose of the research, the study procedures, the expected duration, the voluntary nature of participation, potential risks and benefits, and how their data will be used. Participants will be given the opportunity to ask questions before deciding whether to participate. Written informed consent will be obtained before any questionnaire or interview begins. For online questionnaires, participants will provide consent by selecting an electronic consent option before accessing the questionnaire. Participation will begin only after informed consent has been obtained. *(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.
	Do not collect names unless you really need them. Do not name participants or organisations in any research publications (including the thesis) without their explicit permission. Participant confidentiality and anonymity will be maintained throughout the research. No names or directly identifiable personal information will be included in the questionnaire responses, interview transcripts, or the final dissertation. Each participant will be assigned a unique identification code, and all research data will be stored securely on password-protected devices and university-approved cloud storage. Only the researcher and the research supervisor will have access to the data. Findings will be presented in aggregated or anonymised form to ensure that individual participants and their organisations cannot be identified without their explicit written permission. *(this box should expand as you type)*

SECTION H: 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	***"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.*	☒	☐
	If YES, provide a description of the data and explain why this data needs to be collected:		

2	This includes audio/video data of participants but can also include IP addresses and usernames. Names, addresses and emails also count, as do consent forms. Yes. The research will involve the collection of limited personal data, including participant names, email addresses, and signed consent forms for recruitment and communication purposes. Questionnaire responses and interview feedback will also be collected; however, these will be anonymised during analysis by assigning each participant a unique identification code. Personal data will only be collected where necessary, stored securely on password protected university approved storage, and accessed only by the researcher and the research supervisor in accordance with the GDPR and the Data Protection Act 2018. *(this box should expand as you type)*		
	Does it involve special category data (as defined by the GDPR)?	**YES**	**NO**
3	***"Special category data"*** *means sensitive personal data consisting of information as to the data subjects' –* *(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:		
4	What counts as 'sensitive' will differ between cultures. Any information on behaviour that is not in accordance with cultural norms would count as sensitive personal data. Not applicable. The study will not collect any special category personal data, such as information relating to participants' health, ethnicity, religion, political opinions, biometric data, or other sensitive personal information. The research will focus solely on participants' professional opinions regarding the proposed AI-based ESG framework. *(this box should expand as you type)*		

	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:		
	If possible, save your data on computers that are secure and regularly backed up. Many cloud services only provide GDPR-compliant storage for business customers. An example of suitable text is given below. *All data will be kept in password protected cloud storage on the University Office 365 system which will not be shared. Audio/visual data will be transcribed and would be shown to participants to check accuracy of reporting. Any USB sticks used to store or transfer data will be password protected. All participants will be given a unique identifier to ensure confidentiality and this list will be kept securely in the password protected folder.*		

	All research data will be stored securely on password-protected University computers, the researcher's password-protected laptop, and the University Office 365/OneDrive cloud storage, which complies with the University's data management policies. Personal data, including consent forms and participant contact details, will be stored separately from questionnaire and interview responses. Each participant will be assigned a unique identification code to ensure anonymity during data analysis and reporting. All electronic files will be password protected, and any portable storage devices used will be encrypted and password protected. Only the researcher and the research supervisor will have access to the data. Regular backups will be maintained using the University's secure cloud storage. The data will be retained only for the period required by the University and will then be securely deleted in accordance with the General Data Protection Regulation (GDPR) and the Data Protection Act 2018 *(this box should expand as you type)*

	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):		
	This includes data such as drafts of your thesis as well as experimental or survey data. An example of suitable text is given below. *All data will be encrypted and kept in password protected cloud storage on the University Office 365 system which will not be shared. Any USB sticks used to store or transfer data will be password protected. All data transfers will be encrypted and password protected. All participants will be given a unique identifier to ensure confidentiality and this list will be kept securely in the password protected folder. The data will be stored until the completion of the project and then deleted. In accordance with the DPA2018, participants will have the right to ask to see what data is held relating to them, and this data will be deleted immediately if the participant requests this, in which case the data will not be used in the project.* Electronic data, including questionnaire responses, interview notes, consent forms, and dissertation drafts, will be stored securely using password-protected University Office 365/OneDrive storage and password-protected computers. Any electronic transfer of research data will be encrypted. Participant contact details, such as email addresses used for recruitment, will be stored separately from research data and used only for communication relating to the study. Each participant will be assigned a unique identification code to maintain anonymity. Only the researcher and the research supervisor will have access to identifiable information. Data will be processed in accordance with the General Data Protection Regulation (GDPR) and the Data Protection Act 2018. Participants may request access to or deletion of their personal data before the completion of the study, where appropriate. *(this box should expand as you type)*		
20	List all who will have access to the data generated by the research activity:		
	Normally the principal researcher, possibly also the supervisor and, if the project has an industrial partner, a representative of that partner. Possibly also external examiner or second marker?		

	The principal researcher is Suhaana Kapali and the research supervisor isDr Mohammed Ben Farah. Where required for academic assessment, authorised examiners or second markers may access anonymised research data. *(this box should expand as you type)*
21	List who will have control of, and act as custodian(s) for, data generated by the research activity:
	Usually the principal researcher. The principal researcher, Suhaana Kapali, will act as the custodian of all research data and will be responsible for its secure storage, management, and disposal in accordance with University policies and the GDPR. *(this box should expand as you type)*
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.
	All data will be encrypted and kept in password protected cloud storage on the University Office 365 system which will not be shared. Any USB sticks used to store or transfer data will be password protected, and will be reformatted at the end of the project in order to destroy the data. The data will be stored until the completion of the project and then deleted. All research data will be stored electronically on password-protected University Office 365/OneDrive storage and on the researcher's password-protected laptop. Personal data, including consent forms and participant contact details, will be stored separately from questionnaire and interview responses. All participants will be assigned a unique identification code to ensure anonymity. Regular backups will be maintained using the University's secure cloud storage. Research data will be retained until the completion of the dissertation and for the period required by the University's data retention policy, after which all identifiable personal data will be securely deleted. *(this box should expand as you type)*
22	Confirm that you have read the UWTSD guidance on data management (see https://www.uwtsd.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 I: Use of AI tools

Use of generative AI and other AI-based tools There are a number of ethical issues relating to the use of generative AI and other AI-based tools, including data security, output bias, and output errors. In general you should assume that any generative AI or other AI-based tool that you pay to use is more secure and accurate than one which is free to use. Will the research use AI tools to do any of the following:		**YES**	**NO**	**N/A**
1	Capture data?	☐	☒	☐
2	Generate and/or edit text?	☐	☒	☐
3	Generate graphics?	☐	☒	☐
4	Generate video?	☐	☒	☐
5	Generate sound/music?	☐	☒	☐
6	Generate code?	☒	☐	☐
7	Generate synthetic data?	☐	☒	☐
8	Analyse data?	☒	☐	☐
9	Analyse personal or sensitive data?	☐	☒	☐
10	Classify data?	☒	☐	☐

11	Do you intend to use the free version of any AI tools?	☒	☐	☐
If you have answered **YES** to any of questions O1-O11, please provide justification detailing why this is necessary for the research.				
12	State which AI tool or tools you will be using, and where they are based (or store their data – you may need to check their webpages or user agreement for this). If you are planning to use Copilot then say if you're using the UWTSD version of it or the public version. You should also show how you are complying with current UWTSD guidance/policy of the use of AI. Artificial Intelligence tools are essential to this research because the proposed system is an AI-based framework for automating Environmental, Social, and Governance (ESG) data management and sustainability reporting within SUEZ operations. Python, Jupyter Notebook, Google Colab, Scikit-learn, Pandas, NumPy, SQL, and Natural Language Processing (NLP) libraries will be used to develop, test, and evaluate the prototype system. These tools will support data preprocessing, feature engineering, classification, anomaly detection, and automated analysis of ESG-related information collected from publicly available reports and anonymised datasets. The research will not use AI to process personal or special category data. All AI-generated outputs, classifications, and analytical results will be critically reviewed, validated, and interpreted by the researcher before being included in the final research. The study will comply with the University of Wales Trinity Saint David's guidance on the responsible use of Artificial Intelligence, the General Data Protection Regulation (GDPR), and the Data Protection Act 2018. *(this box should expand as you type)*			

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.uwtsd.ac.uk/research/research-ethics/		
1	**Signature of applicant:**	Suhaana Kapali	**Date: 7/14/2026**
2	Supervisor:		**Date:**
3	Signature:		