

STUDENT PROJECT ETHICAL REVIEW (SPER) FORM

The aim of the University's *Research Ethics Policy* is to establish and promote good ethical practice in the conduct of academic research. The questionnaire is intended to enable researchers to undertake an initial self-assessment of ethical issues in their research. Ethical conduct is not primarily a matter of following fixed rules; it depends on researchers developing a considered, flexible and thoughtful practice.

The questionnaire aims to engage researchers discursively with the ethical dimensions of their work and potential ethical issues, and the main focus of any subsequent review is not to 'approve' or 'disapprove' of a project but to make sure that this process has taken place.

The *Research Ethics Policy* is available at
www.intranet.rgu.ac.uk/credo/staff/page.cfm?pge=7060

Student Name	Antoinette Bonifacia Duweeja de Lima
Supervisor	Mr. Nipuna Senanayake
Project Title	Enhancing Autopilot Vision in Foggy Conditions with Model-Level Fusion of Wind Data
Course of Study	BSc Hons Artificial Intelligence & Data Science
School/Department	School of Computing


Part 1 : Descriptive Questions			
1	Does the research involve, or does information in the research relate to:	Yes	No
	(a) individual human subjects		√
	(b) groups (e.g. families, communities, crowds)		√
	(c) organisations		√
	(d) animals?		√
	Please provide further details:		
	The research involves satellite image datasets and meteorological data. No living subjects (human or animal) or private/confidential information are part of the project. (The project does not involve any individual human subjects. The project focuses solely on autonomous systems and weather data, not human groups. No specific organizations are involved as subjects in the research. The research does not involve any animals.)		
2	Will the research deal with information which is private or confidential?	Yes	No
			√
	Please provide further details:		
	The research does not involve any private or confidential information. All data used is publicly available through sources like Google Earth Engine and ECMWF datasets.		

Part 2: The Impact of the Research			
3	In the process of doing the research, is there any potential for harm to be done to, or costs to be imposed on	Yes	No
	(a) research participants?		√
	(b) research subjects?		√
	(c) you, as the researcher?		√
	(d) third parties?		√
	Please state what you believe are the implications of the research:		
	<p>The research aims to enhance autopilot systems under foggy conditions, focusing on data and models. Ethical implications are minimal since it avoids sensitive, private, or live subjects.</p> <p>(Not applicable as no participants are involved. The research deals with environmental and meteorological data only. No direct physical or psychological risks identified for the researcher. The project does not impose risks or costs on third parties.)</p>		
4	When the research is complete, could negative consequences follow:	Yes	No
	(a) for research subjects		√
	(b) or elsewhere?		√
	Please state what you believe are the consequences of the research:		
	No negative consequences are expected as no human or animal subjects are involved. No foreseeable negative consequences beyond the research scope.		

Part 3: Ethical Procedures			
5	Does the research require informed consent or approval from:	Yes	No
	(a) research participants?		√
	(b) research subjects		√
	(c) external bodies		√
If you answered yes to any of the above, please explain your answer: No informed consent is necessary as the research relies on open-source data. (No participants are involved in the research. Data is sourced from publicly available datasets (e.g., GEE, ECMWF). Data acquisition does not require approval from external bodies.)			
6	Are there reasons why research subjects may need safeguards or protection?	Yes	No
			√
	If you answered yes to the above, please state the reasons and indicate the measures to be		√
7	Has PVG membership status been considered?		√
	(a) PVG membership is not required.		√
	(b) PVG membership is required for working with children.		√
	(c) PVG membership is required for working with protected adults.		√
	(d) PVG membership is required for working with both children and protected		√
	If you answered yes to (b), (c) or (d) above, please give details:		
8	Are specified procedures or safeguards required for recording, management, or storage of data?	Yes	No
		√	
If you answered yes to the above, please outline the likely undertakings: Data is securely managed with restricted access. Files are anonymized, processed, and stored in secure cloud storage during and after the research.			

Part 4: The Research Relationship			
9	Does the research require you to give or make undertakings to research participants or subjects about the use of data?	Yes	No
			√
If you answered yes to the above, please outline the likely undertakings:			
10	Is the research likely to be affected by the relationship with a sponsor, funder or employer?	Yes	No
			√
If you answered yes to the above, please identify how the research may be affected:			

Part 5: Other Issues			
11	Are there any other ethical issues not covered by this form which you believe you should raise?	Yes	No
			√

Statement by Student			
I believe that the information I have given in this form is correct, and that I have addressed the ethical issues as fully as possible at this stage.			
Signature		Date	19.11.2024

If any ethical issues arise during the course of the research, students should complete a further Student Project Ethical Review (SPER) form.

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Part 6: To be completed by the supervisor			
12	Does the research have potentially negative implications for the University?	Yes	No
			X
	If you answered yes to the above, please explain your answer:		
13	Are any potential conflicts of interest likely to arise in the course of the research?	Yes	No
			X
	If you answered yes to the above, please identify the potential conflicts:		
14	Are you satisfied that the student has engaged adequately with the ethical implications of the work? [In signifying agreement, supervisors are accepting part of the ethical responsibility for the project]	Yes	No
		X	
	If you answered no to the above, please identify the potential issues:		
15	Appraisal: Please select one of the following		
	The research project should proceed in its present form – no further action is required	X	
	The research project requires ethical approval by the School Ethics Review Panel		
	The research project needs to be returned to the student for modification prior to further action		
	The research project requires ethical review by an external body. If this applies please give details		
	Title of External Body providing ethical review		
	Address of External Body		
	Anticipated date when External Body may consider project		

Affirmation by Supervisor			
I have read the student's responses and have discussed ethical issues arising with the student. I can confirm that, to the best of my understanding, the information presented by the student is correct and appropriate to allow an informed judgement on whether further ethical approval is required.			
Signature	Nipuna Senanayake	Date	22/11/2024