UNIVERSITY OF WESTMINSTER 冊

University of Westminster
University Research Ethics Committee

Application for Research Ethics

PART A

Section 1 – PROJECT AND APPLICANT DETAILS

1.1 Project Title: Lufyco: An AI-Driven Mobile Fashion Assistant for Image-Based Search and Context-Aware Outfit Recommendations

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1.2 Applicant Details

Name: Dunithi Nihinsa Saruwa Bandara	**University Email Address:** Nihinsa.20220921@iit.ac.lk
Contact Address: No: 1A, Miraj House, Soysapura, Moratuwa	**Telephone Number:** 0705322534
Faculty: Software Engineering	

Please check the relevant box:

Undergraduate ☒   Postgraduate ☐   MPhil/PhD Student ☐   Staff ☐

I confirm I have read the *University's Code of Practice Governing the Ethical Conduct of Research*	YES ☒ NO ☐

1.3 Supervisor/Dean of Faculty/Faculty Research Director details

Please note that all applicants with a supervisor(s) must ensure that the supervisor signs the declaration at the bottom of this page if completing Part A only or in **Section 10.3** if completing Part B

All **staff** must ensure that their Dean of Faculty, or Faculty Research Director (or nominee), as appropriate, signs the declaration at the bottom of this page if completing Part A only or in **Section 10.3** if completing Part B

Name: Ms. Akarshani Amarasinghe	**University Email Address:** akarshani.a@iit.ac.lk
Faculty: Department of Computer Engineering, Faculty of Engineering, University of Sri Jayewardenepura.	**Telephone Number:** 0716573164
Signature:	**Date:** 12-Nov-2025

Section 2 – Project Details

2.1 Please provide a description of the background with references to relevant literature (250 words maximum): Lufyco is a mobile app that helps people find clothes by using a photo and by suggesting full outfits for their mood, occasion, and local weather. Many fashion apps show long product lists and basic filters, which can be slow and confusing. Users often do not know the right terms to search, and they worry whether items will match or fit their style. Lufyco aims to make this easier and faster.

The app uses computer vision to turn a user's photo into a compact image feature. It then searches a small catalog to find similar items. For outfits, it mixes simple rules with lightweight machine learning to combine tops, bottoms, shoes, and accessories. It also shows a short reason, such as color harmony or rain-friendly shoes, to build trust.

The project studies both accuracy and user experience. We will measure search quality and speed on real phones, and we will collect short feedback from users after simple tasks. Data collection is minimal and opt-in. Images and logs are encrypted. Users can delete their data at any time. The goal is a practical prototype that feels quick, clear, and respectful of privacy.

2.2. Please provide a brief description and the aims of your study (250 words maximum):

This study has five aims. First, gather clear requirements for an image-based fashion assistant from target users. Second, build a small mobile prototype that supports "find similar," context-aware outfit suggestions, and short, honest explanations. Third, evaluate quality and speed with simple metrics such as Recall@K, NDCG, and p95 latency, and check usability with SUS and time-to-decision. Fourth, protect privacy by collecting only what is needed, encrypting data, and giving users easy delete and export options. Fifth, produce a short set of lessons and next steps, including fairness checks and robustness to blur or low light.

We will keep the scope focused. The catalog will be small. The models will be lightweight. Tasks will be short and clear. Results will highlight what works, what does not, and why. The outcome will guide an MVP that balances accuracy, speed, and trust.

2.3. Please outline the design and methodology of your study (include details of the selection and recruitment of participants (if any) and details of any invasive (e.g. blood samples, inhalation/ingestion of food and/or non-food products (in abnormally higher or lower levels than normal or a different form), or intrusive (e.g. questionnaires, focus groups, interviews, etc.) procedures [attach extra information as necessary] (400 words maximum in total):

Design. Mixed-methods evaluation of a working prototype. No invasive procedures.

Participants. Adults (18+) who can consent. Recruited by course channels and word-

of-mouth. No vulnerable groups targeted.

Procedure.

1. **Brief survey (5–7 min):** simple demographics, prior app use, and quick usability items after tasks.
2. **Tasks (10–15 min):** a) upload a photo to find similar; b) set mood/occasion to get an outfit; c) review or edit; d) optional save.
3. **Optional interview (10–15 min):** what felt clear, what felt slow, and views on privacy and explanations.

Data. Task times, success flags, limited clicks/saves/swaps, short ratings (e.g., SUS), and anonymised notes. If images are provided, users may use sample images instead of their own.

Data protection. Pseudonymised IDs. Encryption in transit and at rest. Access restricted to the researcher and supervisor. Retention up to 12 months for assessment, then secure deletion. Aggregated, anonymised results may be kept for reporting.

Risks and mitigation. Minimal risk. Possible mild fatigue or concern about photos. Mitigations: sample images available, skip options, breaks, and withdrawal at any time without penalty. No deception.

Consent and withdrawal. Participant Information Sheet and Consent Form provided in advance. Users can omit any question and withdraw; identifiable data will be deleted where feasible.

Analysis. Simple statistics for task times and ratings; basic retrieval metrics (Recall@K, NDCG); thematic notes from interviews to explain scores. Targets include fast first results and clear, helpful explanations.

Dissemination. Module assessment, thesis, and anonymised academic outputs.

2.4. Timescales

Start Date (DD/MM/YY): 25/08/2025

Estimated duration of work: 20 weeks

Section 3 - RISK OF HARM

NOTE 1: Where indicated below applicants should check if the research will require ethical approval from a National Research Ethics Committee via the Integrated Research Application System (IRAS) - nres.queries@nhs.net.- http://www.hra-decisiontools.org.uk/ethics/
NOTE 2: The University of Westminster holds a Human Tissue Authority Licence – This licence is specifically for tissue stored at 115 New Cavendish Street in accordance with the terms of the licence – Advice must be obtained from the University Human Tissue Designated Individual (N.Presneau@westminster.ac.uk)

	RISK OF HARM (to self, colleagues, participants, environment or animals)	Yes	No	N/A
1	Will any pain or more than mild discomfort result from the study?	☐	☒	☐
2	Could the study induce any psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?	☐	☒	☐
3	Will the study involve prolonged or repetitive physical or psychological testing of human participants that may put someone at risk, e.g. use of treadmill?	☐	☒	☐
4	Will the study involve raising sensitive topics (e.g. sexual activity, drug use, revelation of medical history, bereavement, illegal activities, etc.)?	☐	☒	☐
5	Does your work involve any "relevant material" containing human cells (e.g. blood, urine, saliva, body tissues but NOT established cell-lines) from living or deceased persons (Such work must take account of the Human Tissue Act)? – See Note 1 and 2 above.	☐	☐	☒
6	Will DNA samples be taken from human participants (Such work must take account of the Human Tissue Act)? – See Note 1 and 2 above.	☐	☐	☒
7	Does your study raise any issues of personal safety for you or other researchers or participants involved in the project (Especially relevant if taking place outside working hours or off University premises)?	☐	☒	☐
8	Does your study involve deliberately misleading the participants (e.g. deception, covert observation)?	☐	☒	☐
9	Does your work involve administration of a food or non-food substance of a different type from or in abnormally higher or lower amounts than normal or one that is known to cause allergic reaction(s) or potential psychological stress?	☐	☒	☐
10	Does your study involve issues relating to personal and/or sensitive data?	☒	☐	☐
	PARTICIPANTS (and/or their records/associated data) **Does your work involve any of the following:**	**Yes**	**No**	**N/A**
11	Human participants in a health and/or social care setting (e.g. patients, those attending day centres, community care, rehabilitation centres, etc., including in the NHS, other public, private and/or voluntary sectors)? – See Note 1 above.	☐	☒	☐
12	Human participants who may be deemed vulnerable (e.g. children, people in poverty and/or with physiological or psychological impairments, persons attending rehabilitation centres, persons in easily identifiable positions that could be subject to victimisation, etc.)?	☐	☒	☐
13	Expectant or new mothers?	☐	☒	☐
14	Refugees/Asylum seekers?	☐	☒	☐
15	Minors (under the age of 18 years old)?	☐	☒	☐
16	Participants in custody (e.g. prisoners or arrestees)? – See Note 1 above.	☐	☒	☐
17	Participants with impaired mental capacity (e.g. severe mental illness, brain damage, sectioned under Mental Health Act, lowered or reduced sense of consciousness)? – See Note 1 above.	☐	☒	☐
18	Animals (or animal tissue).	☐	☒	☐
	INFORMATION TO PARTICIPANTS	**Yes**	**No**	**N/A**
19	Will you provide participants with a Participant Information Sheet prior to obtaining informed consent which can be taken away by the participant?	☒	☐	☐
20	Will you describe the procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
21	Will you obtain informed consent for participation (normally written)? OR in the case of using personal data previously acquired was consent given for the reuse of the data for other research purposes?	☒	☐	☐
22	Will you tell participants that they may withdraw from the research at any time and for any reason without any impact on their care, service provision etc.?	☒	☐	☐
23	Will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
24	Will you tell participants that their data will be treated as confidential and that, if published, it will not be identifiable as theirs?	☒	☐	☐
25	Will you offer feedback to participants at the end of their participation, upon request (e.g. give them a brief explanation of the study and its outcomes)?	☒	☐	☐
26	Has external funding or collaboration been applied for/received, which requires	☐	☒	☐

	institutional ethical consideration or approval?			

Useful links:

- http://www.screc.org.uk/ - Social Care Research Ethics Committee
- http://www.hra-decisiontools.org.uk/ethics/ - Human Research Authority decision tool to identify if research needs National Research Ethics Committee approval
- http://www.nres.nhs.uk/applications/guidance/governance-and-directives/?entryid62=131341 – Governance Arrangements for Research Ethics Committees
- http://www.nres.nhs.uk/EasySiteWeb/GatewayLink.aspx?alId=134016 - NRES algorithm "Does my project require review by a Research Ethics Committee"?
- http://www.hta.gov.uk/policiesandcodesofpractice/codesofpractice.cfm - Human Tissue Authority Code of Practice
- http://www.hta.gov.uk – Human Tissue Authority website
- http://www.rsclearn.mrc.ac.uk/MRC_HumanTissueAct/player.html - Medical Research Council online training course for Human Tissue Act.

What to do next:

- **If you have answered NO to questions 1-18 (inclusive) and YES to questions 19-25 (inclusive)**, you do not need to complete the Full Research Ethics Approval Form (Part B). Please keep this form for your records, and do not submit to **Faculty Research Ethics Committee** (FREC) unless you require ethical consideration of your study, regardless of ethical implications, by an external body (question 26 has been answered YES). **A list of Faculty contacts is below.**

- **If you have answered YES to any of the questions 1-18 (inclusive) or NO to any of the questions 19-25** the Full Research Ethics Approval Form (Part B) MUST be submitted including Cover Sheet, Part A and Part B of the application form plus any required supplementary documents to the Secretary of the relevant Faculty Research Ethics Committee (FREC). **A list of Faculty contacts is below.**

- If you are applying for external Ethical Approval, please send a *copy* of the Conditions/Approvals letters to the **University Research Ethics Committee** (UREC) Secretary (this may include the original ethical application(s)). Where the external ethics committee/body has equal standing or primary jurisdiction, e.g. another University Research Ethics Committee or a National Research Ethics Committee, any approval will normally be received and noted by the University of Westminster Research Ethics Committee and further consideration may not be required. Where the external committee does not have equal or higher standing than the University Committee then the full ethical approval process at the university may still be required. Additional institutional compliance issues may need consideration by UREC.

- All Applications (dated, signed and authorised) and supplementary information or External Approvals should be sent to the University Research Ethics Committee (UREC) Secretary in *electronic format with a version number, document name and date and the Principal Investigator (or Undergraduate/Postgraduate Taught Student) name. On receipt your application will be issued a unique reference number*

- All new Applications should be submitted to a Research Ethics Committee (FREC or UREC) Secretary a minimum of 10 working days in advance of the Committee meeting date (earlier submission is recommended so that applications can be pre-vetted and obvious issues addressed before the application is considered by the Committee).

Contact details:

Faculty	Chair	Secretary
Architecture and the Built Environment	Professor Nick Bailey	Colette Davis
Media Arts and Design	Dr Anthony Mcnicholas	Fauzia Ahmad

Faculty	Chair	Secretary
Science and Technology	Dr John Colwell	Mandy Walton
Science and Technology Psychology Department Sub Committee	Dr Laura Boubert	TBC
Social Sciences and Humanity	Professor Marco Roscini	Victoria Grey-Edwards
Westminster Business School	Petar Sudar	Haydn Worley
University Research Ethics Committee	Professor Graham Megson	Huzma Kelly

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