



## Ethical Approval Form: Library/Desk/Lab/Studio-based Research Projects

This form must be completed for each piece of research activity whether conducted by academic staff, research staff, graduate students or undergraduates. Applications by students must be endorsed by an academic member of staff acting as Principal Investigator/supervisor. The completed form must be sent to the designated Ethics Committee within the Faculty.

Please complete all sections. If a section is not applicable, write N/A.

1 Name of Applicant	Peter Hart
2 School or Department	School of Computer Science
3 Position in the University	Student
4 Role in relation to this research	Researcher
5 Name(s) of collaborators/co-workers and their relationship to the project (e.g. supervisor, assistant etc.)	<i>Name, and role in project:</i> 1. Wenting Duan, Supervisor. 2. N/A 3. N/A 4. N/A 5. N/A
6 Brief statement of main Research Question or Project Title	Developing a seed segmentation and feature extraction algorithm which incorporates a deep-learning architecture
7 Ethical checklist	<p>Does the research involve living human participants, or human tissue? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>  <i>If you answered "yes", submit form EA2 for Ethical Approval.</i></p> <p>Does the research involve living animals, or animal tissue? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>  <i>If you answered "yes", submit form EA3 for Ethical Approval.</i></p> <p>Does the research involve confidential data, or data not in the public domain? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Does the project potentially put you or your collaborators at physical or psychological risk? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Could the topic or results of this research be seen as illegal, or attract legal action against the University from an outside agency? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Could the topic or results of this research attract unwelcome media attention, or affect the reputation or standing of the University? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Could the topic, results or conduct of this research be regarded as offensive, immoral or destructive by some reasonable people? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Does this research need to be undertaken under a relevant professional code of conduct? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any potential conflicts of interest in conducting this research, including financial gain for the researchers, or for individuals or external organizations affiliated with the researchers? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any factors inhibiting the application of the University's ethical guidelines, including those on proper treatment of data, research design and publication of results? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Does the research require the approval of any external body? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><b><i>If the answer to all questions above is "No", you may complete section 8 to certify that there are no ethical issues, submit this form to the relevant Ethics Committee, and proceed with the research immediately. You accept professional responsibility for this decision, and if unsure should instead submit to the Committee.</i></b></p> <p><b><i>If the answer to any of the above questions is "Yes", complete the rest of the form, submit to the relevant Ethics Committee, and await approval before proceeding with the research. Answering "Yes" does not necessarily imply that the research is problematic, only the Ethics Committee needs to consider the research to ensure that it can proceed, and that the research design conforms to best practice.</i></b></p>

8 Self certification of Ethical Review	<p><i>Having reviewed the ethical implications of this research, I certify that there are no issues requiring Ethical Approval. I certify that the research will be carried out in compliance with the University's ethical guidelines for library/desk/laboratory/studio-based research, with Health and Safety regulations, and with all other relevant University policies and procedures. If there are any changes to the research requiring ethical clearance, I shall apply for such clearance before continuing with the research.</i></p> <p>Signed:</p>  <p>Principal Investigator</p> <p>Wenting Duan</p> <p><b>Note.</b> This section must be endorsed by the member of academic staff responsible for the project. In the case of research by students, the supervising member of academic staff must sign. The signed form should then be submitted to the relevant Ethics Committee within the Faculty, and the research may proceed.</p>
9 Does the research comply with the University's key ethical principles for library/desk/lab/studio-based research ?	<p>Yes      <input checked="" type="checkbox"/>                                  No      <input type="checkbox"/></p> <hr/> <p>If "No", provide an ethical justification for your project and explain why you wish to continue with the research in breach of normal ethical principles:-</p>
10 If applicable, please state the relevant professional code(s) under which the research is being conducted and confirm compliance	
11 Does this research require the approval of an external body ?	<p>Yes      <input type="checkbox"/>                                  No      <input checked="" type="checkbox"/></p> <hr/> <p>If "Yes", please state which body:-</p>
12 Has ethical approval already been obtained from that body ?	<p>Yes      <input type="checkbox"/> -Please append documentary evidence to this form.          No      <input type="checkbox"/></p> <p>If "No", please state why not:-</p> <p>N/A</p> <p>Please note that any such approvals must be obtained and documented before the project begins.</p>
13 If there are any other ethical issues, to which the attention of the approving committee should be drawn, please state them in this section, and explain how you have taken the issues into account, so that the research should be approved. Please consult the University's ethical guidelines for advice.	
	<p>Please also include here, or attach separately, a brief description of the research, to allow the approving committee to reach judgement.</p>

**APPLICANT SIGNATURE**

I hereby request ethical approval for the research as described above.

I certify that I have read the University's ethical guidelines for library/desk/laboratory/studio-based research.



24-10-2017

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Date

PETER HART

\_\_\_\_\_  
PRINT NAME

**FOR COMPLETION BY THE DESIGNATED FACULTY AUTHORITY**

Please select ONE of A, B, C or D below:

☐ A. The Faculty gives ethical approval to this research.

☐ B. The Faculty gives conditional ethical approval to this research.

10 Please state the condition (inc.  
date by which condition must be  
satisfied if applicable)

☐ C. The Faculty cannot give ethical approval to this research but refers the application to the University Research Ethics Committee for higher level consideration.

11 Please state the reason

☐ D. The Faculty cannot give ethical approval to this research and recommends that the research should not proceed.

12 Please state the reason, bearing in  
mind the University's ethical  
framework, including the primary  
concern for Academic Freedom.

**Signature of Designated Faculty Authority for Research Ethics**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## Key ethical guidelines for library/desk/laboratory/studio-based research

The University of Lincoln has drawn up the following key principles for researchers engaged in library/desk/laboratory/studio-based projects in order to promote high professional standards. They should be read alongside the University's Ethical Principles for Conducting Research with Humans and Other Animals, and operate as part of the University's Ethical Framework.

- Non-falsification of data: Researchers have an ethical obligation to refrain from tampering with data. Thus questionnaire responses, experimental observations and data analyses should not be fabricated, altered nor discarded. In addition, researchers have a responsibility to exercise reasonable care in processing data to ensure no errors affect the results.
- Ethics of reporting research: Researchers are obliged to give full and proper attribution of ideas: presenting the words, data or ideas of another person as your own without properly citing them amounts to plagiarism. This is not only misconduct but can also be an infringement of copyright, amounting to theft of intellectual property.
- Ethics and research design: Researchers should be open to a range of methods: failure to consider and evaluate alternative methods and tools for the collection of data may be regarded as too overtly biased. All appropriate steps should be taken to ensure that no samples are obtained from unethical sources e.g. illegal databases; unregistered suppliers of samples from humans or other animals.
- Authorship credit: Only those researchers who are significant contributors to a research project should be given authorship credit. A "significant contributor" might be described as a person playing a major role in conceptualising, analysing or writing the final document. Ideally, all those involved in the research project should decide upon the order of authorship. Usually, the first author is the one who has made the biggest contribution.
- Conflict of interest: Researchers should be aware of the potential influence of personal or commercial interests on their work and take all practical measures to ensure that information is presented without distortion.
- The principle of beneficence: Researchers are required to protect individuals by seeking to maximise anticipated benefits and minimise possible harms. It is therefore necessary to examine carefully the design of the study and its risks and benefits including, in some cases, identifying alternative ways of obtaining the benefits sought from the research. Research risks must always be justified by the expected benefits of research.
- Professional codes: Researchers should undertake research legally and in accordance with any relevant professional codes of conduct.
- Personal information: Researchers should anonymise information which relates to individuals when they have not obtained informed consent, unless there is a clear justification to the contrary. They should also be aware of the impact of wider public dissemination of their work and the impact this might have on any individual or group of individuals. If it is anticipated that it might cause distress, it is essential to demonstrate that the benefits outweigh this risk.