

Research Ethics Online

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Course: Computing (Bachelor of Science with Honours)

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Automatic Speech Recognition of Nepali Language to Devanagari Script

WILL YOUR RESEARCH STUDY.....?

Please answer the following:

- 1 Involve direct and/or indirect contact with human participants? No
- 2 Involve analysis of pre-existing data which contains personal or sensitive information not in the public domain? No
- 3 Require permission or consent to conduct? No
- 4 Require permission or consent to publish? No
- 5 Have a risk of compromising confidentiality? No
- 6 Have a risk of compromising anonymity? No
- 7 Collect / contain sensitive personal data? No
- 8 Contain elements which you OR your supervisor are NOT trained to conduct? No
- 9 Use any information OTHER than that which is freely available in the public domain? No
- 10 Involve respondents to the internet or other visual/vocal methods where participants may be identified? No
- 11 Include a financial incentive to participate in the research? No
- 12 Involve your own students, colleagues or employees? No
- 13 Take place outside of the country where you are enrolled as a student, or for staff, outside of the UK? No
- 14 Involve participants who are particularly vulnerable or at risk? No
- 15 Involve participants who are unable to give informed consent? No
- 16 Involve data collection taking place BEFORE informed consent is given? No
- 17 Involve any deliberate deception or covert data collection? No
- 18 Involve a risk to the researcher or participants beyond that experienced in everyday life? No
- 19 Cause (or could cause) physical or psychological harm or negative consequences? No
- 20 Use intrusive or invasive procedures? No
- 21 Involve a clinical trial? No
- 22 Involve the possibility of incidental findings related to health status? No
- 23 Fit into any of the following security-sensitive categories: concerns terrorist or extreme groups; commissioned by the military; commissioned under an EU security call; involve the acquisition of security clearances?
If you believe you may need to answer yes to this question, please check [here](#) for further guidance before finalising your decision.
No

RISK CATEGORY 1

Student Applicants

Your study has been provisionally classified as Risk Category 1. This means that your Research Supervisor (or Director of Studies for research students) can normally approve this project.

You must complete the remainder of this application, which will automatically be sent to your Research Supervisor upon submission, who will review your application and decide whether to grant ethical approval, request revisions or reject the application. For security-sensitive research, see the Research Ethics Procedures for details of the approval process.

You will be notified of the outcome by email. You can also view the outcome on the 'My Applications' page of this system.

PROJECT SUMMARY

Start date of project

15th May 2021

Expected completion date of project

7th July 2021

Externally Funding

Is this project externally funded? No

Project Summary

Please give a brief summary of your study (maximum 100 words).

This project presents the usage of Automatic Speech Recognition System (ASR) for Nepali language as a low-resource language. Traditional ASR algorithms like DeepSpeech required huge amount of data for training the ASR engine to a reasonable accuracy resulting in training low-resource language like Nepali to be difficult. This paper uses a new algorithm Unsupervised Cross-lingual Representation Learning for Speech Recognition, named Wav2Vec2.0. The algorithm allows for pretraining on unlabeled data. This allows the usage of unlabeled data from any language to improve the accuracy of the ASR engine which are present in abundance. This paper describes the usage of Wav2Vec2 in Nepali language for creating a base model using freely available data on the Internet.

Project Group Members

Is this a group project? No

RISK CATEGORY 1: DECLARATION

Comply with Policy and Procedures

Yes : I confirm that I have read the Research Ethics Policy and relevant sections of the Research Ethics Procedures and will adhere to these in the conduct of this project.

Confirmation

Yes : I confirm that I will undertake this project as detailed in the application. I understand that I must abide by the terms of this approval and that I may not make any substantial amendments to the project without further approval.

Benefits

Yes : The results of the research should benefit society directly or by generally improving knowledge and understanding. Please tick this box to confirm that your study has a potential benefit.

Note: If you cannot identify a benefit you must discuss your project with your Research Supervisor to help identify one or adapt your proposal so the study will have an identifiable benefit.

Learned Societies

I have read an appropriate professional or learned society code of ethical practice: No

SUBMISSION CHECKLIST

Please indicate the supporting documents submitted by ticking the appropriate boxes below:

For projects involving human participants, you must submit, where appropriate, the Participant Information Sheet/consent form. You must also submit every communication a participant will see or receive. Failure to do so will cause delays to the application.

No : Participant Information Sheet(s)

Yes : Consent Form(s)

No : Assent Form (usually for children participants)

No : Recruitment documents eg, posters, flyers, advertisements, email invitations, letters, web pages if online research

No : Measures to be used eg, questionnaires, surveys, interview schedules, psychological tests

No : Screening questionnaire

No : Letters/communications to and from gatekeepers/third parties

No : Evidence of any other approvals or permissions eg, NHS research ethics approval, in-country approval

Yes : Research proposal/protocol (no more than 2-3 A4 pages): It is not a requirement that this is included, however, if this would help the understanding of a complex project by the reviewer(s), please include

No : Risk assessment from: Some projects may require a risk assessment form: see the Procedures document for details (eg, projects involving a physical intervention, collecting data off-campus)

No : Approval documentation for projects involving ionising radiation

No : Confirmation of insurance and indemnity cover: Some projects need to be referred to the Insurance & Risk Officer: see the Procedures document for details

Yes : Other document/s

File uploads

Please upload your files here:

 Download All (zip)

Name	File Size	Date Uploaded
 data_citing.txt	0.54 KB	07-JUL-21
 Ethics - Consent_Form.doc	55.81 KB	07-JUL-21
 Initial Project Plan_77202796.docx	320.25 KB	07-JUL-21