INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY
HYDERABAD

Application to the
IIIT Hyderabad - Institute Review Board (IRB)
For Ethics Approval of a Research Project

Basic Information	
1. **Title of the Project**	**Jhootha Hi Sahi**
2. **Name of the Applicant(s)**	**Aaryan Sharma, Akshit Gureja**
3. **Principal Investigator**	**Aaryan Sharma**
3.1. Affiliation (Department, Institute)	Human Science Research Center (HSRC)
3.2. Address	6th Floor, Himalaya D Block
3.3. Contact No	8708488131
3.4. Email	aaryan.sharma@research.iiit.ac.in
4. **Co-Investigator 1**	**Akshit Gureja**
4.1. Affiliation (Department, Institute)	Signal Processing and Communication Research Center (SPCRC)
4.2. Address	2nd floor, Vindhya A3
4.3. Contact No	9041108830
4.4. Email	akshit.gureja@research.iiit.ac.in
5. **Application Date**	**October 8, 2023**
6. **Duration of the Project**	**40 days**

**Additional box may be added, if space is inadequate*

Outline of Proposed Research

1. **Background:**
   Deepfake content is the content produced by use of artificial intelligence, mostly generative AI and deep learning, to create convincing images, audio, or video hoaxes by manipulation of facial appearances in an attempt to fake events mostly for the purpose of spreading misinformation. In recent times, Generative AI and deep learning technologies have undergone a profound revolution where an average user can also generate content using tools like MidJourney and DALLE. And research shows that an average user often fails to distinguish between a good deepfake and an original image/video content. And with already skewed datasets, which induces biases in deepfake detection algorithms, the algorithms often fail to produce accurate results. Therefore, it becomes important on how an average user distinguish between the original and fake content and do factors like age and sex of content impact the user's ability to distinguish or not.

2. **Aims and Objectives:**
   Our study aims to determine if people's ability to detect deepfake content is influenced by the deepfake subjects' sex/age and the person's familiarity with the subject, so we can understand deepfake detection better.

3. **Hypothesis (as applicable):**
   People's ability to detect deepfake content isn't influenced by the deepfake subjects' sex/age and the person's familiarity with the subject.

4. **Research category (Quantitative, Qualitative, Mixed, Applied, Basic etc) and Research/Study Design:**
   Mixed

5. **Methodology:** In this experimental setup, participants are subjected to a series of Yes/No questions, the answers to which depend on their knowledge of the subject in the content, which is randomly selected and varies across 16 unknown subjects, comprising an equal mix of 8 males and 8 females. This diverse selection includes both authentic and deepfake content of identical lengths, creating a balanced evaluation scenario. To gauge participants' attentiveness and discernment, additional questions inquire about the specifics of their decision-making process. Participants are also asked to employ Likert or semantic scales to assess the authenticity of the presented content. This approach ensures a comprehensive analysis of their perception and judgement regarding the authenticity of the content, with a subsequent confidence check for each individual question and an overall assessment.

   Study Area: Deepfake Content Detection

   Institutions of collaboration: None

   Study/Performance Sites: Vindhya B6-101

   Target Respondents & Age group + Gender (clearly mention vulnerability): Our target respondents are college students of age 18-25, with equal number of male and female participants.

   Sampling process and sample size: We'll be going ahead with random sampling, where we'll release a form for volunteers to participate and then we will randomly select 50 participants, ensuring equal number of male and female participants.

Risks, Benefits, Safety & Other Controls
1. **What are the potential risks involved? State any potential or known hazards of the procedure listed in the methodology and how does the investigator intend to overcome this aspect.** The potential risks in this study include psychological discomfort for participants who may view deepfaked content. To mitigate this, participants will be debriefed after the study, offered counseling resources if needed, and ensured that the content will not be distressing. Their consent to participate voluntarily will be reaffirmed.
2. **Does this study involve ionizing radiation, hazardous substances, invasive procedures (including radiological imaging, venipuncture, or any other invasive procedures or intimate physical examination)? If yes, please justify.** No
3. **What are the compensations for Unexpected Risks?** In case of any unexpected risks, we would get the participant in contact with the concerning authorities such as Aarogya in the campus.
4. **If there are any novel interventions to be used in the study which is not the medically-accepted 'treatment of choice' within the local context, explain why a novel intervention is being tested, and what arrangements will be made to switch subjects over to the 'treatment of choice' if the experimental intervention is not effective.** No
5. **What are the potential benefits to the subjects?** The participants would get to experience of behavioral research study and would be provided with refreshments after the experiments.
6. **What are the potential severe adverse events (SAE) anticipated in this proposed study? What will be the likelihood of occurrence and strategies to reduce the occurrence?** There are no SAE anticipated in the proposed study.
7. **Please state whether subjects will have to bear any expenses related to medicines or investigations or travel or if they have to forego their work/pay in relation to participation or any other costs in relation to the study. State how the expenses would be met.** NO
8. **Will the subjects receive financial benefit / other material benefit as a result of participation in this study? Please specify.** The participants won't be receiving any financial benefits, but will be provided with refreshments post the completion of experiment.

Consent, Confidentiality
1. How will informed consent be obtained and by whom? ***(Mandatorily provide a copy of the participant information sheet and consent form)*** Informed consent will be obtained from all participants by the principal investigator and the co-investigator. Before participation, participants will receive a detailed explanation of the study's purpose, procedures, and potential risks. They will be provided with an informed consent form and encouraged to ask questions before voluntarily providing their consent to participate. And a copy of the given consent form is in the link below: https://docs.google.com/document/d/1OVX9MHJKJgfrxyUxOt1Sz812AsedrftCDdenAawo4sk/edit?usp=sharing
2. **Is allocation involved in selection of participants i.e. will participants know they are part of the research? Yes / No, If yes (allocation – random/nonrandom/selected etc), explain how and why?** Yes, allocation is involved. We will use random sampling to select 50 participants, ensuring equal representation of male and female subjects. Random sampling helps minimize selection bias and ensures a representative sample for a more generalizable study outcome. This transparency and fairness in participant selection enhance the study's credibility.
3. **What procedures will ensure the confidentiality of participants? Will the identifiable information be removed? How will data be stored and for how long?** Confidentiality will be ensured by anonymizing data, using unique participant codes, and securely storing data on password-protected systems. Identifiable information will be removed. Data will be retained per institutional policies, with a clear data retention and disposal protocol to safeguard privacy.
4. **How will results be disseminated? What information will be fed back to the subjects and/or participating organization?** Results will be disseminated through academic presentations. Participants will receive a summary of findings to ensure transparency and feedback to the participating organization, if applicable, will include a report on the study's outcomes and their implications for the organization's interests.

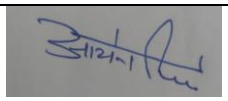
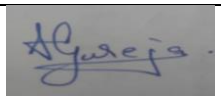
Conflict of Interest/Sponsored/Proprietary Interest
1. Please state any conflict of interest/sponsorship/proprietary interest is involved in the study and its team? (financial / non-financial) – Provide supportive documents as annexures. **None**

Declaration by the Principal Investigator

I certify that the information provided by me is complete and correct. I understand that as principal Investigator, I will take full responsibility for the protection of rights and welfare of all participants/study subjects including the conduct of study and ethical performance of the project. I agree to comply will all rules and regulations of IRB and IIIT Hyderabad for the conduct of the study / trial.

I hereby declare that:

- Qualified personnel according to IRB guidelines will conduct the study.
- No change will be made in the protocol or consent form until approved by the IRB.
- Legally effective informed consent will be taken from Human subjects as applicable.
- Adverse events will be reported to IRB as per ICH GCP/DCGI Adverse event reporting policy.
- I further certify that the proposed research is not currently being conducted and will not begin until IRB approval has been obtained.

S.No	Research Team	Signature	Date
1	**Principal Investigator**		**Oct 8, 2023**
2	**Co-Investigator 1**		**Oct 8, 2023**

NOTE: All proposals submitted will be subjected to technical review or specialty expert sub-committee whetting and those comments will have to be clarified appropriately before it is taken up for consideration of the IRB.

Details of Exemption/Expedited from Full Review
1. Are you requesting for: a) Exemption from full review – **YES** b) Expedited Review - **No**
2. Under which category are you claiming this? Please highlight in the list by encircling. A. **Exemption from Full Review of IRB** i. Research on data in the public domain/ systematic reviews or meta-analyses; ii. Observation of public behavior/ information recorded without linked identifiers and disclosure would not harm the interests of the observed person; iii. Quality control and quality assurance audits in the institution; iv. Comparison among instructional techniques, curricula, or classroom management methods; v. Consumer acceptance studies related to taste and food quality; vi. Public health programs by government agencies. B. **Expedited review from IRB** i. Involves non-identifiable specimen and human tissue from sources like blood banks, tissue banks and of left-over clinical samples. ii. Involves clinical documentation materials that are non-identifiable (data, documents, records). iii. Modification or amendment to approved protocol (administrative changes/correction of typographical errors and change in researcher(s)). iv. Revised proposal previously approved through expedited review, full review or continuing review of approved proposal. v. Minor deviation from originally approved research causing no risk or minimal risk. vi. Progress/annual report where there is no additional risk, for example activity limited to data analysis. Expedited review of SAEs/unexpected AEs will be conducted by SAE subcommittee. vii. For multi-centre research where a designated EC has approved the proposal, a participating EC may review participating centre specific information and modifications in the study proposal through full committee meeting/expedited review depending on the importance of local consent related issues involved specific to the centre. viii. Research during emergencies and disasters *(See Section 12 of ICMR Ethical Guidelines, 2017 - https://main.icmr.nic.in/sites/default/files/guidelines/ICMR_Ethical_Guidelines_2017.pdf)*
3. Justification for claim in Point 2 above: ii. Observation of public behavior/ information recorded without linked identifiers and disclosure would not harm the interests of the observed person.

Human Research during COVID-19 pandemic times
1. Will you be carrying out this Research during Covid-19 Pandemic times? Yes/No **NO**
2. If Yes - highlight the steps of how you will take to ensure health/safety/wellbeing/protection of stakeholders of this research. **NIL**