

INFORMED VOLUNTEER CONSENT FORM

We kindly request that you participate in the study titled *Leveraging Neuromarkers for Next-Generation Immersive Systems*, conducted by Professor Tevfik Metin Sezgin, a faculty member of the Computer Engineering at Koç University, and permitted with the approval of the Ethics Committees of Koç University numbered 2026.014.IRB2.002.

It is essential that you participate in this study voluntarily, without any pressure or obligation. Please read the details below and feel free to contact us if you have difficulty understanding them or have any questions before you decide to participate.

PURPOSE OF THE STUDY (Why is this study necessary?)

The purpose of this study is to understand and predict 'cybersickness' (motion sickness caused by Virtual Reality) before severe symptoms occur. By monitoring your brain activity while you experience Virtual Reality (VR) environments, we aim to develop an intelligent system that can detect early signs of discomfort. This research hopes to make future VR technologies more comfortable and usable for everyone.

EXCLUSION CRITERIA

For your safety and the integrity of the study, please inform the researchers and do not participate if you meet any of the following conditions:

1. A history of epilepsy or seizures.
2. Diagnosed vestibular or balance disorders.
3. A history of chronic migraines or severe susceptibility to motion sickness.
4. Skin allergies or sensitivity to cosmetics/lotions (due to the EEG conductive gel).
5. Current use of psychoactive medications.
6. Open wounds, sores, or recent injuries on the scalp.

PROCEDURES

In the event that you wish to participate in this study voluntarily, the following activities will be carried out:

1. *Preparation:* You will answer a short questionnaire about your susceptibility to motion sickness. We will then place an EEG cap (a fabric cap with sensors) on your head. A water-soluble gel will be applied to your scalp to record brain signals.
2. *VR Session:* You will wear a VR headset and watch 4 short video scenes (5 minutes each).
3. *Feedback:* While watching, you will use a handheld controller to indicate if you are feeling any discomfort.
4. *Breaks:* After each scene, you will remove the headset, answer a quick check-in survey, and rest for 5 minutes.
5. *Completion:* Once finished, we will remove the cap. You will be provided with facilities to wash your hair to remove the gel.

POTENTIAL RISKS AND DISCOMFORT

Participating in this study involves the following risks:

Cybersickness: You may experience symptoms similar to motion sickness, such as nausea, dizziness, headache, or eye strain due to the VR environment.

Skin Irritation: The gel used for brain recording is safe and water-soluble, but in rare cases, it may cause temporary mild redness or itching on the scalp.

Measures: You have the right to stop the experiment immediately at any time if you feel too uncomfortable. We will provide water and a quiet place for you to rest after the session until you feel fully recovered.

POTENTIAL BENEFITS TO THE SOCIETY AND/OR VOLUNTEERS

Your participation will contribute valuable scientific data that helps researchers develop safer and more comfortable Virtual Reality systems for the future.

CONFIDENTIALITY

Any information that specifically identifies you and is collected in connection with this study shall be kept confidential and shall not be disclosed to third parties without your consent.

All data collected from you (brainwave recordings and survey answers) will be stored anonymously using a code number (e.g., Participant 01), not your name.

Your personal identity will be kept strictly confidential and will never be shared in any scientific report, presentation, or publication.

PARTICIPATION AND WITHDRAWAL

It is essential that you decide whether you want to participate in this study or not, of your own free will, without any influence.

Once you decide to participate, you can withdraw from the study at any time without losing any of your rights or being subject to any sanctions.

IDENTITY OF THE RESEARCHERS

If you have any question or concern about this research, please contact:

Principal Investigator: Ömer Sabri Emeksiz, Email: oemeksiz24@ku.edu.tr

Faculty Supervisor: Tevfik Metin Sezgin, Email: mtsezgin@ku.edu.tr

I have understood the explanations above. My questions have been answered satisfactorily. I agree to participate in this study, without prejudice to my right to withdraw at any time. I have received a copy of this form.

Participant's Name-Surname

Participant's Signature

Date

Researcher's Signature

Date
