B.N.M Institute of Technology

An Autonomous Institute under VTU

Department of Artificial Intelligence and Machine Learning

Vidyayāmruthamashnuthe

VRAR Project Report

on

Checkers Game Simulation

Submitted in partial fulfillment for the award of degree of

Submitted by

Manamnath Tiwari (1BG22AI053)

Under the Guidance of

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Academic Year 2024-25

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CERTIFICATE

Certified that the VRAR Project entitled **"Checkers Game Simulation"** carried out by **Manamnath Tiwari** (USN **1BG22AI053**) ,the Bonafide students of V Semester, **B.N.M Institute of Technology** in partial fulfillment for the award of Bachelor of Engineering in **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING** of the **Visvesvaraya Technological University**, Belagavi during the year 2024-25. It is certified that all corrections / suggestions indicated for Internal Assessment have been incorporated in the project report. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

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Examiner 1:

Examiner 2:

ABSTRACT

The project, **"Blender Checkers Game Simulation,"** is an engaging virtual experience created using Blender, showcasing an innovative representation of a classic board game in a digital environment. This simulation blends the traditional charm of checkers with the immersive capabilities of AR/VR, offering users a captivating way to explore and interact with the game.The virtual checkers board features meticulously designed elements, including a detailed game arena with realistic textures and materials. Dynamic lighting and shadows enhance the ambiance, while interactive animations bring the game to life, simulating real-world gameplay movements. Camera transitions and guided perspectives provide users with an immersive view of the board and gameplay, ensuring a seamless and engaging experience.
The project highlights Blender's capabilities in creating high-quality AR/VR simulations through the integration of visual effects, physics-based animations, and user-focused interactivity. By reimagining the traditional checkers game in a virtual environment, the project provides a modern take on a timeless classic, making it accessible to a broader audience.

"Blender Checkers Game Simulation" demonstrates the intersection of creativity and technology, setting a benchmark for developing interactive and artistic virtual experiences. It serves as a testament to Blender's potential in pushing the boundaries of AR/VR applications while preserving the essence of traditional games in the digital age.
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