

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
JNANA SANGAMA, BELAGAVI-590018



COMPUTER GRAPHICS LABORATORY WITH MINI PROJECT REPORT

on

“ATOM SIMULATION”

Submitted in partial fulfillment of the requirement of VI semester for the award of the degree of

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING

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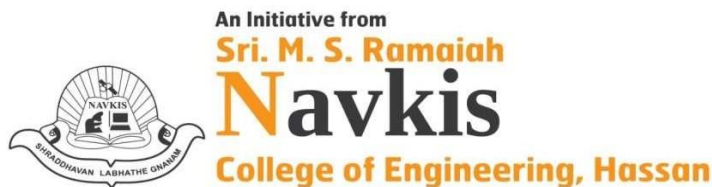
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NAVKIS COLLEGE OF ENGINEERING, HASSAN

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CERTIFICATE

This is to Certify that the mini project work entitled “**Atom Simulation**” is a Bonafide work carried out by **Vijay B K (4YG20CS045)** and **Sanju K S (4YG20CS046)** in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi, Karnataka** during the year **2022-2023**. It is certified that all corrections/suggestions indicated for the Internal Assessment have been incorporated in the report. The mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering degree.

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DECLARATION

We, the undersigned students of 6th semester Computer Science & Engineering, Navkis College of Engineering Hassan. Respectively here by, declare that our mini project work entitled “**Atom Simulation**” is a bonafide work carried out by us. We also declare that this mini project was not entitled for submission to any other university in the past and shall remain the only submission made and will not be submitted by us to any other university in the future.

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By

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ABSTRACT

The mini project "Atom Simulation in Computer Graphics" aims to create a visually engaging and interactive simulation of atomic structures using computer graphics techniques. The project will leverage concepts from physics, computer science, and computer graphics to provide users with an intuitive and immersive experience of exploring atomic models.

The primary objectives of the project are as follows:

1. Atomic Structure Generation: Develop algorithms to generate accurate representations of atoms, including their nucleus, electrons, and orbitals. Implement techniques to represent various elements and their atomic properties.
2. Realistic Rendering: Utilize computer graphics techniques to render atoms with realistic lighting, shading, and material properties. Incorporate visual effects to enhance the overall visual appeal, such as reflections, refractions, and particle systems.

Upon completion, the Atom Simulation in Computer Graphics project will serve as a visually engaging and educational tool for students, researchers, and enthusiasts to explore and understand atomic structures in an interactive and immersive manner.

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