

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnana Sangama", Belagavi-560014, Karnataka



CGV MINI PROJECT ON

"ATOM SIMULATION"

*SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
MINI PROJECT*

**BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING**

Submitted By

BORISH KONGBRAILATPAM (1SV20CS006)

Under the guidance of

Mr. RENUKARADHYA P.C

Assistant Professor, Dept. of CSE.

Nandha Kumar
PRINCIPAL
SIET. TUMKUR.



Department of Computer Science and Engineering
SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Affiliated To Visvesvaraya Technological University)
Sira Road, Tumakuru - 572106, Karnataka.
2022-2023



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING CERTIFICATE

This is to certify that, Mini project report of entitled "Atom Simulation" has been successfully carried out by BORISH KONGBRAILATPAM [1SV20CS006], in partial fulfillment for the Mini project report of **Bachelor of Engineering in Computer Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2022-23**. It is certified that all the corrections/suggestions indicated for internal assessments have been incorporated in the report. The Mini - Project report has been approved as it certifies the academic requirements in respect of Mini-Project work prescribed for the Bachelor of Engineering Degree.

Signature of Guide

Mr. RENUKARADHYA P.C

Assistant Professor, Dept. of CSE,
SIET, Tumakuru.

PRINCIPAL
SIET, TUMKUR.

Signature of H.O.D

Dr. Basavesha D M.Tech., Phd.
Associate Professor & HOD Dept. Of CSE,
SIET, Tumakuru.

Name of the Examiners

1. Harish
2. G. M. H. L

Signature with date

13/7

23/07/23



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DECLARATION

I, **BORISH KONGBRAILATPAM [1SV20CS006]**, student of VI semester **B.E** in Computer Science & Engineering, at Shridevi Institute of Engineering & Technology, Tumakuru, hereby declare that, the Mini Project work entitled "**Atom Simulation**", embodies the report of our Mini-Project work carried out under the guidance of **Mr.Renukaradhya P.C, Assistant Professor, Department of CSE, SIET, Tumakuru** as partial fulfilment of requirements for the Internship Project report in **Bachelor of Engineering in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi**, during the academic year **2022-23**. The Internship-Project has been approved as it satisfies the academic requirements in respect to the Internship-Project work.

Place: Tumakuru

Student Name & Signature

Date: 04/07/23

Borish Kongbrailatpam [1SV20CS006]

.....*Borish K.*.....

Nenukaradhya P.C
PRINCIPAL
SIET. TUMKUR.

ABSTRACT

Everything you see around you is made up of atoms, and all atoms consist of subatomic particles. In the Atom simulation, you will learn the names of the basic subatomic particles and understand.

As a part of the project, you'll see how the electrons are revolving around the nucleus in their respective orbits. One can see and spot the nucleus, atoms and electrons and can understand how an electron revolves around the nucleus. The project has made insuch a way that one can easily understand the simulation of atoms.

This project has been developed in Ubuntu OS with interfacing keyboard and mouse with menu driven interface. And plans to include lighting, shading and other features in future enhancement.

This project is written in C and used OpenGL (Open Graphics Library). Open Graphics Library is a cross-language, cross-platform application programming interface for rendering 2D and 3D vector graphics. The API is typically used to interact with a graphics processing unit, to achieve hardware-accelerated rendering.

Niranda Kumar
PRINCIPAL
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