VIRTUAL ZOO

A PROJECT REPORT

Submitted by,

Pratyaksh Yadav - 20211CIT0078
Pramoda Kumara K M - 20211CIT0103
Burhan Pasha - 20211CIT0085

Under the guidance of,

Dr.Mohana S.D
Assistant Professor

in partial fulfillment for the award of the degree

of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING (INTERNET OF THINGS)

At

PRESIDENCY UNIVERSITY BENGALURU

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PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the Project report **"VIRTUAL ZOO"** being submitted by **"BURHAN PASHA"** bearing roll number **"20211CIT0085"**, **"PRATYAKSH YADAV"** bearing roll number **"20211CIT0078"**, **"PRAMODA KUMARA K M"** bearing roll number **"20211CIT0103"** in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.

Dr. Mohana S D
Assistant Professor
School of CSE&IS
Presidency University

Dr. S P Anandaraj
Professor & HoD
School of CSE
Presidency University

Dr. MYDHILI K NAIR
Associate Dean
School of CSE
Presidency University

Dr. Md SAMEERUDDIN KHAN
Pro-Vc School of Engineering
Dean -School of CSE&IS
Presidency University

PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE ENGINEERING

DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **"VIRTUAL ZOO"** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering(IoT)** , is a record of our own investigations carried under the guidance of **Dr. Mohana S D, Assistant Professor, School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

NAME	ROLL.NO	SIGN
BURHAN PASHA	**20211CIT0085**	
PRATYAKSH YADAV	**20211CIT0078**	
PRAMODA KUMARA K M	**20211CIT0103**	

ABSTRACT

Traditional zoos, while providing educational value and entertainment, often raise ethical concerns regarding animal captivity, habitat disruption, and maintenance costs. A Virtual Zoo Using Hologram presents an innovative and sustainable alternative that leverages holographic and augmented reality technologies to create a realistic, interactive, and immersive wildlife experience. This system utilizes advanced 3D holographic projections to display life-sized, high-definition virtual animals in a controlled environment. Visitors can observe animals in their natural behaviors, listen to their sounds, and even interact with them. Unlike conventional zoos, this approach eliminates the need for physical animal confinement, ensuring ethical treatment while offering an engaging educational experience.

The virtual zoo can simulate diverse ecosystems, allowing users to explore multiple habitats, from rainforests to deep-sea environments, without geographical limitations. Integration with IoT technologies further enhances the realism by responding to user interactions in real-time. This project promotes wildlife conservation by reducing human-animal conflicts, minimizing ecological impact, and raising awareness about endangered species through immersive storytelling.