

# ACHARYA'S NRV SCHOOL OF ARCHITECTURE

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# ASTRONAUT TRAINING CENTRE, CHALLAKERE ARCHITECTURE DESIGN PROJECT (THESIS) – 2023-24

# Submitted in partial fulfillment of the Requirements for the "Bachelor of Architecture" Degree Course

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A project report submitted to

## VISVESHWARAYA TECHNOLOGICAL UNIVERSITY

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**CERTIFICATE** 

This is to certify that this thesis report titled "ASTRONAUT TRAINING

CENTRE, CHALLAKERE" by SRUJANA P of IX SEMESTER B. Arch, USN

No.1AA19AT059, has been submitted in partial fulfillment of the requirements for

the award of under graduate degree Bachelor of Architecture (B.Arch) by

Visveshwaraya Technological University VTU, Belgaum during the year 2023-24.

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#### **DECLARATION**

This thesis title "ASTRONAUT TRAINING CENTRE, CHALLAKERE", submitted in partial fulfillment of the requirement for the award of the under graduate of Bachelor of architecture is my original work to the best of my knowledge.

The sources for the various information and the data used have been duly acknowledged.

The work has not been submitted or provided to any other institution/ organization for any diploma/degree or any other purpose.

I take full responsibility for the content in this report and in the event of any conflict or dispute if any, hereby indemnify Acharya's NRV School of Architecture and Visveshwaraya Technological University, Belagavi, and its official representatives against any damages that any raise thereof.

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#### **ABSTRACT**

An astronaut training centre is a complex that houses training courses dedicated to familiarize astronauts with the conditions they will encounter during their space exploration missions.

India has greatest potential to grow dramatically and exponentially in the space exploration. And it is only possible if adequate professional training is provided. It suffers lack of equipment and infrastructure to train upcoming astronauts and cosmonauts. The crew of four people are being trained in Russia under the Gaganyaan mission which is India's first human-space mission.

Although a basis or an ad hoc training facility is being functional in Bangalore, ISRO has a proposal of a fully-fledged astronaut training centre which is more sophisticated for the upcoming missions in Challakere, Karnataka.

The thesis investigates the rigorous demands of preparing astronauts for space exploration. The facility integrates advanced simulation environments to replicate the complexities of space missions.

In summary, the thesis prioritizes realism and versatility, aiming to provide astronauts with a holistic preparation experience. In addition to technical aspects, the proposed design also emphasizes the psychological and physical well – being of astronauts, ensuring they are thoroughly equipped for the upcoming challenges.

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