ACHARYA'S NRV SCHOOL OF ARCHITECTURE

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AASARA- Solution for waste upcycling

ARCHITECTURE DESIGN PROJECT (THESIS) – 2024-25

Submitted in partial fulfillment of the Requirements for the

"Bachelor of Architecture" Degree Course

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A project report submitted to

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CERTIFICATE

This is to certify that this thesis report titled “AASARA- Solution for waste upcycling” by S. Aishwarrya Shre of IX SEMESTER B. Arch, USN No. 1AA20AT046, 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 2024-25.

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Principal

Examined by:

1)Internal Examiner :

2)External examiner 1 :

3)External examiner 2 :

DECLARATION

This thesis title “AASARA- Solution for waste upcycling”, 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.

(Signature)

S. AISHWARRYA SHRE

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ABSTRACT

The thesis project titled "Aasara – A solution for waste upcycling" is about providing shelter to the rag pickers and upliftment of their economic character by providing an upcycling unit.

Urban waste management is a global issue causing health and environmental hazards. The World Bank supports solid waste management projects to address this issue. Upcycling waste can reduce waste production, CO2 emissions, and promote a circular economy by creating usable construction material.

In India, Maharashtra, Tamil Nadu, Delhi, and Uttar Pradesh produce the most waste, leading to health hazards for those living near dumping grounds. Slums near these areas face social and economic challenges. The relocation of inner-city residents to areas like Deonar in Mumbai led to the growth of slums near dumping yards.

Burning waste in Deonar releases toxic chemicals causing health risks. Developing the slums around Deonar and creating an upcycling unit in an energy-efficient manner is needed. A study explores, that the health risks for slum dwellers can be reduced by regenerating public spaces and reusing materials.

Improving slum conditions through upcycling waste supports the circular economy, reduces waste, and provides employment opportunities. Developing sustainable solutions like green building materials and renewable energy systems will benefit the community near the landfill by creating products from recycled waste. A communal-driven approach will help slum dwellers earn income through waste upcycling.

Keywords: *Circular economy, waste management, upcycling, Deonar, slum development.*