"APPLICATION OF GREEN BUILDINGS IN SUSTAINABILITY AND ENVIRONMENT PROTECTION"

A PROJECT REPORT

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In partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

In

CIVIL ENGINEERING

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAVI – 590018

Under the Guidance of

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ALVA'S
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DEPARTMENT OF CIVIL ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

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CERTIFICATE

Certified that the project work entitled "**APPLICATION OF GREEN BUILDINGS IN SUSTAINABILITY AND ENVIRONMENT PROTECTION**" is a bonafide work carried out by

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Are bonafide students of Department of Civil Engineering of Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF ENGINEERING in **CIVIL ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2020-2021. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The 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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ABSTRACT

Materials are the essential components of buildings construction. Chemical, physical and mechanical Properties of materials as well as an appropriate design are accountable of the building mechanical strength. The design of green buildings should thus begin with the selection and use of eco-friendly materials with related or better features than traditional building materials. Building materials are usually selected through functional, technical and financial requirements. However, with sustainability as a crucial issue in the last decades, the building sector, directly or indirectly causing a considerable portion of the annual environmental deterioration, can take up the obligation to contribute to sustainable development by finding more environmental friendly methods of construction and building. Among the directions for solutions is to be found in new material applications, recycling and reuse, sustainable production of products or use of green resources, Careful selection of eco-friendly sustainable building materials may be the fastest way for builders to start integrating sustainable design concepts in buildings. Ordinarily, price has been the primary consideration when comparing related materials or materials selected for similar purpose. Nevertheless, the price of a building element signifies just the manufacturing and transportation costs, not social or environmental costs. Substantial initiatives have been carried out by the research community globally, in order to discover alternative sustainable building materials and low technology techniques, which result in a more sustainable and affordable construction complying with the comfort standards required today. Embracing green building materials is a good alternative to meet to this objective. Therefore, Selection of construction materials that have minimum environmental burdens is useful in the sustainable development of a nation. The purpose of this study is to highlight how sustainable building material can contribute to lessen the impact of environmental degradation, and generate healthy buildings which can be sustainable to the occupant as well as our environment.