

**IJERT**

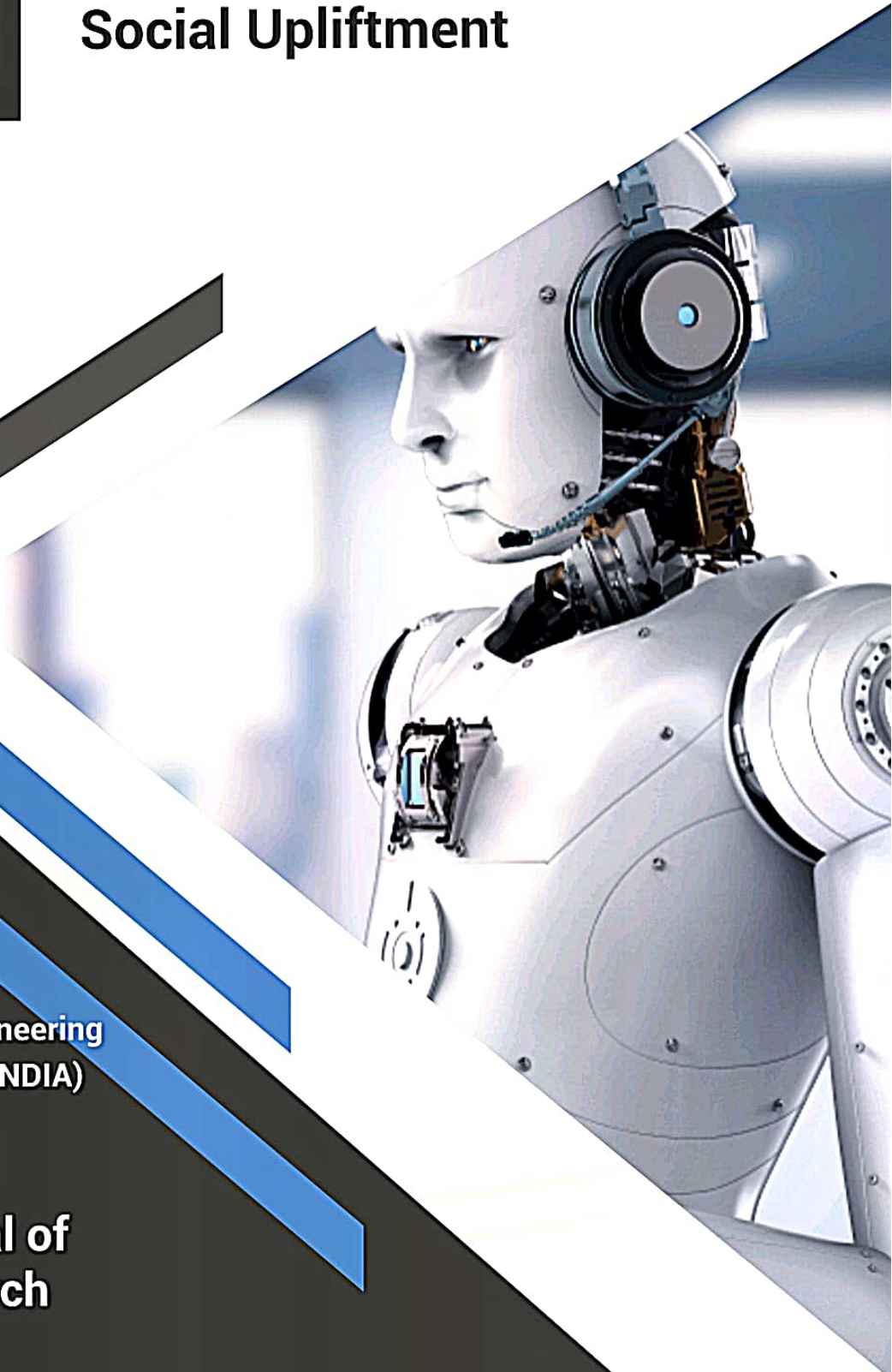
**National Conference on  
Technical Advancements for  
Social Upliftment**

**Organized by**

Vidyavardhini's College of Engineering  
& Technology (VCET), Vasai (INDIA)

**Published By**

**International Journal of  
Engineering Research  
and Technology**  
([www.ijert.org](http://www.ijert.org))





IJERTCONV9IS03022	<b>E-Learning for Job Aspirants</b>	Diksha Gosavi, Mehjabeen Inamdar, Anil Hingmire
IJERTCONV9IS03023	<b>Malaria Outbreak Prediction using Machine Learning</b>	Agranee Jha, Sanchit Vartak, Kavya Nair, Anil Hingmire
IJERTCONV9IS03024	<b>Metier - A Service Provider Android Application</b>	Swapneel Vaidya, Shraddha Khadye, Sonika Khanduri
IJERTCONV9IS03025	<b>Study of Effect of Orientation of Column and Position of Shear Wall on G+13 Storeyed Earthquake Resistant Structure</b>	Vishal .V. Gupta, Ashwin Soosan Pillai, Akash Bharmal, Jaydeep. B. Chougale
IJERTCONV9IS03026	<b>Experimental Investigation of Plastic Coated Aggregate</b>	Yogita Bhiva Alave, Sanika Shekhar Mahimkar, Ketki Sanjay Patil, Jayprakash Jiyalal Gupta, Arbaz Kazi
IJERTCONV9IS03027	<b>Experimental Study on Strengthening of Load Bearing Structures by Ferrocement Lamination</b>	Dr. Sunil G. Kirloskar, Mihika Malankar, Niraj Bhilare, Santosh Danai, Rahul Biradar
IJERTCONV9IS03028	<b>Construction Labour Productivity - A Review</b>	Ninad Kadu, Sushant Ganiga, Jignesh Mistry, Govind Chaurasiya, Pankaj Yadav
IJERTCONV9IS03029	<b>Application of Analytical Hierarchy Process (AHP) in Construction Works</b>	Shruti Belekar, Siraj Jamadar, Jyoti Manjarekar, Raunak Singh, Arbaaz Kazi
IJERTCONV9IS03030	<b>Use of Construction and Demolition Waste for Ground Improvement</b>	Pratik Patil, Prakash Panda, Mehul Neman, Sangram Mhetre, Bhavik Sankhe
IJERTCONV9IS03031	<b>Experimental Study on Stone Column using Concrete Waste in Black Cotton Soil</b>	Viresh Tadolge, Mahendra Daima, Sunny Bhavsar, Sagar Mahala, Rajesh Gaikwad
IJERTCONV9IS03032	<b>Scheduling and Estimation of Residential Structures using Primavera</b>	Hansashree Govindrao Pawar, Mithil Prasad Shirke, Jatin Sanjay Sawant, Professor Vikrant Kothari
IJERTCONV9IS03033	<b>Study on Structural Behaviour of Earth Slab Panel Confined by G. I. Wire Mesh</b>	Shreya Ghosalkar, Kushal Patel, Abhishek Parmar, Sandesh Uttekar, Jaydeep Chogale
	<b>Experimental Studies on Pervious</b>	Vaibhavi Bari, Himani



**Vidyavardhini's College of Engineering and Technology**  
(Approved by AICTE and Affiliated to the University of Mumbai)  
(NAAC Accredited)

**VNC - 2020 TASU**  
**27<sup>th</sup> June, 2020**

**IEEE** BOMBAY  
SECTION



MUMBAI CENTRE

**ISHRAE**



VCET ISA SC

## *Certificate of Participation*

This certificate is presented to  
**Mr. Viren Chandanshive**

of  
**Vidyavardhini's College of Engineering and Technology**

for presenting paper titled

**NTASU6015 Development of Work Breakdown Structure for Residential Building Construction Project- A Case Study**

in the Vidyavardhini's National conference 2020 **"Technical Advancements for  
Social upliftments"** organised by Vidyavardhini's College of Engineering and

Technology, Vasai held on 27<sup>th</sup> June, 2020.

  
**Dr. Vikas Gupta**  
Dean Academics  
Conference chair

  
**Dr. Harish Vankudre**  
Principal  
Honorary Conference Chair

CERTIFICATE ID NZSALC-CE003157



# Development of Work Breakdown Structure for Residential Building Construction Project- A Case Study

Paras Vairagade

U.G. Student,  
Dept. of civil engineering  
Vidyavardhini's college of engineering  
and technology  
Vasai (W), Maharashtra, India

Lovelesh Khatarkar

U.G. Student,  
Dept. of civil engineering  
Vidyavardhini's college of engineering  
and technology  
Vasai (W), Maharashtra, India

Pakshal Shah

U.G. Student,  
Dept. of civil engineering  
Vidyavardhini's college of engineering  
and technology  
Vasai (W), Maharashtra, India

Shashank Shetye

U.G. Student,  
Dept. of civil engineering  
Vidyavardhini's college of engineering  
and technology  
Vasai (W), Maharashtra, India

Viren Chandanshive

Asst. Professor  
Dept. of civil engineering  
Vidyavardhini's college of engineering  
and technology  
Vasai (W), Maharashtra, India

**Abstract**—In project management proper arrangement in setting the progress is the essential element. Planning is an initial step for each and every work in management field. Planning serves as the base work executing, monitoring, controlling and closing of the project. Hierarchical decomposition of the goal objectives, activities, sub activities and work package is done by work breakdown structure which involves managing the project. This study deals with planning, scheduling, tracking of a residential building using work breakdown structure. The work breakdown structures provide the general idea about the interdependencies of the activities which will be helpful during the project monitoring.

**Keywords**—Planning, scheduling, Microsoft project, work breakdown structure.

## I. INTRODUCTION

A work breakdown is an essential component for any software project since it defines the details of the work that is necessary to accomplish a project's objectives. From the very early stage of submitting a project proposal, it is important to formulate the content of the project via a WBS. Such an early WBS formulation enables project needs to be better defined, and the resource and time estimations required to complete the project to be improved. Nevertheless, it is important to note that the WBS of a project changes over time, according to altering needs and constraints. In other words, although the WBS should be introduced at the very early stage of the project, it will be permanently exposed to changes, which should be properly presented in the WBS. The preparation of the WBS has an impact not only on the planning, but also on organizational level.

## II. LITERATURE

### A. A case study on highway project

This paper provides a proper method for planning, scheduling and Resource utilisation in construction projects and an application of activity-based computerised (MSP and MS Excel) planning, scheduling.

### B. Resource scheduling in construction project using MSP

A case study of a project in Pune, Maharashtra, India was considered for finding out various aspects required in efficient planning and execution of the project. Various journal papers were referred to find out different methodologies to be adopted.

### C. Application of MSP for time and cost management in real estate construction

Real Estate construction projects refer to the construction of habitable spaces like Residential, Commercial buildings. These projects have Sponsors who invest money while the rest other teams to manage the project & it's construction.

### D. A review on scheduling of construction project by MSP

The main aim of any construction project is not only to execute or complete it, but the main aim of any project is that, it should be that to complete it within given time limit, with greater efficiency and economy, which is very essential in successful completion of project.

### E. Planning and scheduling of project using MSP

For finding out various aspects that proves efficient planning & execution of the project, disparate methodologies adopted and to find out remedial measures, international journal papers were referred. The method adopted includes defining of problem statement, insinuating the objectives from the data collected in two part viz. Primary data and secondary, analyzing the data and finally coming to the conclusion.

### F. Planning and resource scheduling of residential project (G+7) using primavera

It concludes that by using the primavera, a time period of 4 months from the actual base schedule of the project was saved and also helps to prevent the cost overrun, thereby ensuring the successful completion of the project.

### G. Planning and scheduling residential building using primavera software

The main objective of this project is to prepare the proper planning and scheduling and timely completion of two storey residential building construction at Dindugal. This project can