



MGM's
POLYTECHNIC

CIVIL ENGINEERING
DEPARTMENT

SPECIAL POINTS OF INTEREST:

- Students Results
- Faculties Achievements
- Social Activity
- Solid Waste Management Program
- Industrial Visits
- Lecture Talks by Professionals
- Departmental Activities
- Cultural Events



अथापत्थ

A NEWS LETTER OF CIVIL DEPARTMENT

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MSBTE Academic Result Winter 2017

Maharashtra State Board of Technical Education (MSBTE) has conducted the Winter 2017 Examination in month of November-December 2017. For this Examination from our department three sixty students was appeared. The overall result of department was 80.00 % for the Winter 2017 examination.

Congratulations

Topper Students of Department

FIRST YEAR

- 1) Zinzurde Neha 81.71%
- 2) Muhammed Taha 79.86 %
- 3) Syeda Sara Fatima 79.29 %

SECOND YEAR

- 1) Shaikh Abrar 88.12 %
- 2) Wagh Aditya 83.77 %
- 3) Pathan Mujahid 81.41 %

THIRD YEAR

- 1) Bhojwani Kunal 78.47 %
- 2) Borkhede Tanuja 77.88 %
- 3) Quadri Maruf 77.18 %



**Prof. Salve U. L.
M. E. (Structures)
Head of Department**

Effect of Curtailed Shear Wall on Storey Drift of High Rise Buildings Subjected To Seismic Loads

Shear wall is a structural element used to resist horizontal forces parallel to the plane of the wall. Shear wall has highly in plane stiffness and strength which can be used to simultaneously resist large horizontal loads and support gravity loads. Shear Walls are specially designed structural walls include in the buildings to resist horizontal forces that are induces in the plane of the wall due to wind, earthquake and other forces. To bring the maximum drift down to allowable limits, cross sectional dimensions of beams and columns have to be increased in many cases. For the study, two Symmetrical Structures of 15-storey and 21-storey are analyzed by using standard software package STAAD.Pro V8i.

Evaluation of Angle of Excitation for Torsion by using irregularities in R.C.C. Frames

Torsional behaviors of asymmetric and irregular R.C.C structures are one of the most frequent sources of structural failure during strong ground motions. In this paper G+ 9 stories irregular shape building considered with mass, stiffness irregularity. For the evaluation of critical angle of seismic incidence for torsion by using dynamic analysis response spectrum method in STAAD PRO as per I.S 1893-2002. Set values from 0 to 90 degree with increment of 10 degree interval have been used for angle of excitation. Building column divided into three main categories including corner, side and middle column. The angle at which maximum torsional moment is obtain that is considered as a critical angle and results are compared in terms of axial force, bending moment and shear force for column.

Seismic Response of Vertically Irregular R.C. Frame With Stiffness Irregularity At Ground Floor

In past, several major earthquakes have exposed the shortcomings in buildings, which had caused them to damage or collapse. It has been found that regular shaped buildings perform better during earthquake. The presence of vertical irregular frame subject to devastating earthquake is matter of concern. The present paper attempts to investigate the proportional distribution of lateral forces evolved through seismic action in each storey level due to changes in stiffness of frame on vertically irregular frame. As per the Bureau of Indian Standard (BIS) 1893:2002 (part1) provisions, a G+10 vertically irregular building is modelled as a simplified lump mass model for the analysis with stiffness irregularity at ground floor. To response parameters like story drift, story deflection and story shear of structure under seismic force under the linear static & dynamic analysis is studied. This analysis shows focuses on the base shear carrying capacity of a structure and performance level of structure under sever zone of India. The result remarks the conclusion that, a building structure with stiffness irregularity provides instability and attracts huge storey shear. A proportionate amount of stiffness is advantageous to control over the storey and base shear. The soft computing tool and commercial software CSI-ETABS is used for analysis.



**Prof. Danish Ali
M. E. (Structures)
Lecturer**



**Prof. Shaikh S. J.
M. E. (Structures)
Lecturer**



**Prof. Bhutekar S. B.
M. E. (Structures)
Lecturer**

Improving Soil Stability By Using Polyethylene Geogrid

Soil performance plays vital role in road construction as the sub grade of road is the most important element for the designed life of road. In this paper we have made an attempt to enhance soil stability by using polyethylene geogrid which made from the waste material. The present study investigates the improvement in the CBR value of lateritic soil by using geogrids at different depths. We have conducted CBR test (unsoaked) on lateritic soil specimen. The result shows the significant improvement in CBR value as it predicts better performance of road pavement with economical approach.

Social Activity



**Departmental Staff and students done the Tree Plantation at
Bhagatsingh Junior College, Ranjangaon**

Solid Waste Management Program



Traffic Volume Study



Industrial Visits



Visit to Sewage treatment Plant with third year Students



Visit to Retaining wall construction with Second year Students

*“ Sincerity
is
the
sum
of
all
moral
qualities ”*



Visit to Steel Structures with third year Students

*“ Perfection
Is
not
attainable,
but
if
we
chase
perfection
we
can
catch
excellence ”*

Lecture Talks by Professionals



Lecture Talk arranged for third year students from PWD Officials

Departmental Association (CESA)



Annual Cultural Event & Farewell



*“ Change
your
thoughts
And
You
change
your
world ”*



“ A person who never made a mistake never tried anything new.... ”

News Letter Created by Prof. Salve U. L.