
	<b>Pimpri Chinchwad Education Trust's Pimpri Chinchwad College of Engineering</b>	
<b>Final Year B.Tech. Project- Abstract</b>		

**Department: Civil Engineering**

<b>Project Title</b>	Slope Stability Analysis of Biopolymer Stabilized Laterite Soil Using Plaxis LE												
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<b>Abstract</b>	<p>Landslide is the movement of rock, earth or debris down a sloped section of land, caused by rain, earthquakes, volcanoes or other factors that make the slope unstable. Parshuram Ghat in Ratnagiri district, Maharashtra is the site selected for the current study which experiences frequent landslides. The landslides at that location have caused many fatalities and traffic jams. This study attempts to find a sustainable solution to this problem.</p> <p>Xanthan gum biopolymer has been used to improve soil's engineering properties and further to analyse the slope stability, Plaxis LE 2D software is used. Soil properties such as cohesion, angle of internal friction, bulk unit weight of soil are basic parameters for slope stability analysis and to simulate worst-case scenarios, water table data is required. The Xanthan gum biopolymer is environment friendly, non-toxic and non-carcinogenic and can easily be obtained from the microorganism Xanthomonas campestris. Soil properties before and after the addition of xanthan gum (with varying % i.e. 1%, 2%, 3%) have been determined. These properties are used as inputs for Plaxis software to analyse the slope stability. Google Earth Pro is used to get topographical data.</p> <p>After giving all the inputs to Plaxis, we get FoS (Factor of Safety) as output. After comparing the FoS of stabilized laterite soil with conventional laterite soil, we can suggest a sustainable solution to the associated problem.</p>												
<b>Remarks on IPR or Publication</b>	Publication – Minimum Scopus indexed journal												
<b>Contact Details</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><b>Email-id -</b></td> <td style="width: 50%;"><b>Mobile No.-</b></td> </tr> <tr> <td><a href="mailto:manjitgirase1212@gmail.com">manjitgirase1212@gmail.com</a></td> <td>9359594575</td> </tr> <tr> <td><a href="mailto:mayuridake95@gmail.com">mayuridake95@gmail.com</a></td> <td>7972688145</td> </tr> <tr> <td><a href="mailto:khansimran4242@gmail.com">khansimran4242@gmail.com</a></td> <td>9822695169</td> </tr> <tr> <td><a href="mailto:Chinmay2kulkarni@gmail.com">Chinmay2kulkarni@gmail.com</a></td> <td>8308209326</td> </tr> <tr> <td><a href="mailto:Shailendra.banne@pccoepune.org">Shailendra.banne@pccoepune.org</a></td> <td>9766481942</td> </tr> </table>	<b>Email-id -</b>	<b>Mobile No.-</b>	<a href="mailto:manjitgirase1212@gmail.com">manjitgirase1212@gmail.com</a>	9359594575	<a href="mailto:mayuridake95@gmail.com">mayuridake95@gmail.com</a>	7972688145	<a href="mailto:khansimran4242@gmail.com">khansimran4242@gmail.com</a>	9822695169	<a href="mailto:Chinmay2kulkarni@gmail.com">Chinmay2kulkarni@gmail.com</a>	8308209326	<a href="mailto:Shailendra.banne@pccoepune.org">Shailendra.banne@pccoepune.org</a>	9766481942
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