

A
Major Project Report
On
“BIOETHICAL WAY OF UTILIZING BANANA PEEL
FOR BIOETHANOL PRODUCTION”



Submitted in partial fulfilment of the requirement of the degree

**BACHELOR OF TECHNOLOGY
IN
CHEMICAL ENGINEERING
SESSION 2023-24**

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CERTIFICATE OF APPROVAL

This is to certify that thesis entitled "Bioethical Way of Utilizing Banana Peel for Bioethanol Production" submitted by Mr. Vishwa Mohak Pandey (Roll No. – 20101062), in partial fulfilment of the requirements for degree of Bachelor of Technology in Department of Chemical Engineering is a record of bonafide and original research work carried out by them under our guidance and the thesis does not include any work which has previously been submitted for the award of other degree, diploma, associate-ship, fellowship, or other similar title to them. We further certify that the work reported in this thesis was carried out independently by the candidates.

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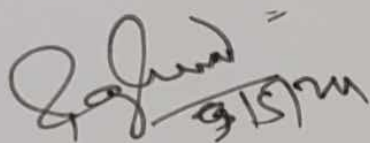
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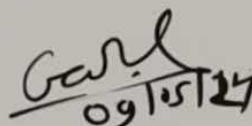
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ABSTRACT

This study looks at the viability of producing bioethanol from banana peels, an agricultural waste product. The abundant agricultural waste is washed, dried, ground into a powder, and then utilized to produce bioethanol. Baking yeast, or *Saccharomyces cerevisiae*, was utilized to ferment the hydrolysate. The sample has undergone the usual process for calculating and producing ethanol. Spectrophotometry was used in the conversion computation. The results of the study demonstrate how crucial hydrolysis is to the synthesis of ethanol. The findings demonstrate that these agricultural wastes can be important feedstocks for the manufacture of bioethanol, providing a sustainable and environmentally beneficial substitute for traditional ethanol sources. The results point to the possibility of a bioethanol manufacturing method that uses renewable resources, minimizes waste, and advances the cause of cleaner energy.