



# **FABRICATION OF SOLAR ENERGY BASED BUCKET ELEVATOR**

A project report submitted  
in the partial fulfilment of the requirements for the award of degree of

## **BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING**

**SUBMITTED BY**

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**DEPARTMENT OF MECHANICAL ENGINEERING**

**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**(PERMANENTLY AFFILIATED TO JNTU-KAKINADA, ACCREDITED BY NBA &  
NAAC, APPROVED BY AICTE, RECOGNISED BY UGC 12f & 2b)**

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**2016-2020**

# DEPARTMENT OF MECHANICAL ENGINEERING

## AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY



### CERTIFICATE

This is to certify that **G.DURGA PRASAD**(Regd No. 16811A0324), **M.LIKHIL NAGA KRISHNA BABU**(Regd No. 16811A0346), **A.VENKATA SUDHEER**(Regd No. 16811A0305), **P.BALAJI**(Regd No. 16811A0358) of final year engineering have done project work on "**FABRICATION OF SOLAR ENERGY BASED BUCKET ELEVATOR**" at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, Narsipatnam in partial fulfilment of the requirements for the award of degree of "**BACHELOR OF TECHNOLOGY**" in "**MECHANICAL ENGINEERING**" to JNTUK University, during the academic year 2016-2020.

**INTERNAL GUIDE**

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## ABSTRACT

Energy conservation is one of the growing concerns of today. Energy sources are depleting at higher rate so, their conservation is necessary. Renewable resources are used for making energy such as wind power, solar power, hydro power etc. these energy sources are infinite and can be used endlessly for producing energy. Solar energy based bucket elevator system is a project that utilizes solar power to develop a elevator system. The elevator system designed is able to provide gentle handling and least spillage. The other advantages of this solar bucket elevator system are that it requires low maintenance and also it operates quietly. Growing demands of systems employing renewable energy sources had increased demands for such projects.

In this project, the construction and working of a bucket conveyor system is demonstrated. Material handling equipment is mechanical equipment used for the movement, storage, control and protection of materials, goods and products throughout the process of manufacturing, distribution, consumption and disposal. The different types of material handling equipment can be classified into four major categories: transport equipment, positioning equipment, unit load formation equipment, and storage equipment. Conveyors are used when material is to be moved frequently between specific points over a fixed path and when there is a sufficient flow volume to justify the fixed conveyor investment.