

ISBN	978-93-88122-14-6
Website	www.veltech.edu.in
Received	07-May-2020
Article ID	NISDCE158

VOL	01
eMail	nisdce@veltech.edu.in
Accepted	22-May-2020
eAID	2020.nisdce.158

## HAND GESTURE CONTROLLED CONSTRUCTION EQUIPMENT- A TRAINING SIMULATION MODULE

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**ABSTRACT:** Construction equipment is the major resource for completing the project. In order to perform the given work task, a well-trained or skilled laborers are required. The laborers are trained by traditional techniques to enhance their skill, to carry out the given tasks without any damages. While training the new recruits, there are many factors that are involved such as training risks, cost, impact on productivity, etc. Now a day's new technologies are developed and implemented in the field. The equipment is also operated with the help of advanced sensors, this smart technology helps in the operation and control of the various types of equipment for the effective completion of project work. Which makes sure it is safe, and efficient while using it in the industry. In this research, it is proposed that the equipment is operated with the help of hand gestures. The equipment which is to be used in this thesis work is the excavator. That will be modeled using 3D model software and the same is simulated with the help for 3D development software and then the hand gesture to be used is correlated or integrated with the equipment, which leads to a better understanding of the work system for the labors to operate. This work module is then given to the organizations for its feedbacks and suggestions to know how far this can be implemented in real-time projects. It is then analyzed and compared with the traditional techniques, in order to know its pros and cons.

**Keywords:** Simulation Module, Hand gesture, Construction equipment, and Labor training

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