

Proceeding of the  
**National Conference**  
on  
Recent Innovation in Engineering

22-23, February 2017



**NCRIE-2017**



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## DESIGN AND FABRICATION OF STIRRUP BENDING MACHINE

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**ABSTRACT:-**In civil construction most of work is completed with the help of labour. In beams or columns the concrete is supported with the help of horizontal or vertical rods to give enough strength. Stirrups are square or rectangular shaped reinforced element. In small construction the labours bend the steel rods manually. This method is time consuming. It is possible to decrease the time with increase of stirrup making rate with the help of automation.

Making of stirrups by fully automatic machine is not much economical because the cost of machine is high and it needs skilled labours to use it. So this project is aimed to develop the machine to perform bending operations on steel rods to make stirrups. This machine consist of 3 phase AC motor, Speed reduction arrangement, jigs, adjustment rod, Stoppers, Base. The main objective of our project is to design and develop the simple, cheap, efficient and less maintenance stirrup bending machine compared to existing machines.

**Keywords—**Stirrup Bending Machine, 3 phase AC motor, Speed reduction arrangement.

## DESIGN AND FABRICATION OF PORTABLE AIR CONDITIONER

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**ABSTRACT:-** The big problem, we are facing from a very long time in summer at coastal areas is high temperature and humidity. To overcome this problem an air conditioner was invented. But the ordinary air conditioner is difficult to setup and also it is very costly. So it is not possible for common peoples to use it for their comfort. Hence we will design an air conditioner which is easy to move from one place to another and less costly. This portable air conditioner will work on the principle of Vapour Compression Cycle.

**Keywords—**vapour compression cycle, portable air conditioner, air conditioner, air cooler, refrigeration

