International J.of Multidispl.Research & Advcs. in Engg.(IJMRAE),
ISSN 0975-7074, Vol. 3, No. I (January 2011), pp. 213-227

DESIGN AND DEVELOPMENT OF COUPLED TO UNCOUPLED SYSTEM FOR STIRRUP MAKING MACHINE

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Abstract

A system design is a very complex process wherein a designer has to consider number of parameters and has to optimize those parameters. The first step is to form a design equation which may be decoupled or coupled design. The equation is then converted into uncoupled design with diagonal design matrix which is a good design. Stirrup is an important element in Civil construction area. These stirrups are presently made manually. In this manual stirrup making process there are many drawbacks like low productivity, poor accuracy, operators subjected to repetitive work and may suffers from several diseases like slipped disc, Carpel Tunnel syndrome etc. To overcome these drawbacks authors concentrated on design and development of appropriate low cost mechanical system for stirrup making. The focus of this paper is on an approach of uncoupling the functional requirements for developing a mechanical system for stirrup making.

Keywords : Stirrup, cam, follower, bending pin, coupled design and uncoupled design

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