

**DESIGN OF EXPERIMENTATION, FORMULATION
OF MATHEMATICAL MODEL AND ANALYSIS
FOR BAMBOO CROSS CUTTING OPERATION**

C.N.SAKHALE, P.M.BAPAT, M.P.SINGH AND J.P.MODAK

Abstract

The present work reports the design of experimental work to be executed for establishing generalized empirical model for Bamboo processing operation cross cutting. This also includes design and development of a machine with specialty of multiple operations of bamboo processing in a single unit. Estimation of mathematical model and its optimization. Designing of measuring devices for measurement of current drawn, Processing torque, Energy, and time required for each processing operations using specially designed circuits.

Keywords : Bamboo, Cross cutting, Cutting Power Estimation, Opto-coupler, Optimization, Sensitivity analysis, ANN.