**AUTOMATIC BETEL NUT CUTTING MACHINE**

ABSTRACT:

Betel nut is a nut which is not only used along with betel leaf. It also has some medicinal properties which cure cancer, jaundice and so many dangerous diseases. This nut is edible wholesomely but it is consumed as crushed nuts. In north India most of them are consuming these nuts than any other states. So, there are many factories runs to crush these nuts. In those factories so many labors where working to cut the nuts manually with the help of hand cutter this will take much time to cut. So we designed the machine called automatic betel nut cutting machine which will cut so many pieces in a short time than manual processes. This machine is specially made in order to reduce the man power and increase in production at lower cost. This machine is a multi disciplinary which performs turmeric cutting, coconut cutting etc. The hopper is welded with casing. The casing contains rotating blade and these parts are welded with base. The base is attached with tray. The blade used in this machine not sharp. 4-T shaped grids are used to form a blade, these T shaped grids are welded with shafts to form a blade. This will rotated at high speed to crush the nuts. The motor used in this machine is 3ph induction motor which runs on three phase supply. The whole construction can be made even more compact and this can be made in future. All the parts used here is made of steel. Traditionally betel-nut cutting work is done manually using cutters and there was no machine available to perform this tedious task smoothly. So we developed betel nut cutting machine which helped in reducing the drudgery involved to cut the nut. There is an inclined grader cum feeder, which sorts and feeds the betel-nuts into the cutting machine. The feeder has a vibrating system, which agitates the betel-nuts, separating them by passing through appropriate section according to their size. It is cut into pieces inside the casing and rushed out through the small holes and collected in tray.