

Design and Development of Low Cost Power Loom for Coir Sector

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Abstract

Weaving concept has not changed during the year, but the speed and sophistication. Due to increased consumer demand, it is impossible to do without industrial loom. Power Loom is one of the types used to weave mats and mattings. Semi automatic and traditional looms are foot operated type and doesn't have automatic shuttling. The shuttling is to be done manually by throwing weft yarn wounded quill from one end to other through the gap between raised and unraised warp yarns (Shed). This drudgery operation is a constraint for women workers. The existing power loom, costly and involves sophisticated mechanisms. It is important for improving the mechanism by simple automation for simplifying the work of the weaver and reducing fatigue through enhanced operations leading to higher production.

Key Words: PLC Unit, Automatic Shuttling Mechanism, Cam operated slay movements