

DEVELOPMENT OF MACHINERY

YEAR	ACTIVITIES	ACHIEVEMENTS
<p>2000-01</p>	<p>Modified the prototype motorised ratt for spinning single strand yarn with four spindles by incorporating a stop motor device and tested for performance.</p> <p>A motorised spinning ratt with 6 spindles was designed with single-phase motor of 150/180 watt and put into performance run.</p> <p>Imparted training to 5 batches of trainees in the maintenance of coir processing machineries.</p> <p>A contrivance consisting of two metallic and bamboo frame was designed and fabricated for weaving Coir Bhoovastra without the aid of a loom.</p> <p>Fabricated an automatic bobbin winding system and fitted to the automatic double head spinning machine using single gear box for feed rollers for reducing friction.</p> <p>A loomless weaving system was designed and the technology was provided to M.s/ Brothers Coir Mills</p> <p>Refinements were effected to the semi automatic loom and clutch system requires further modification for running the loom smoothly.</p> <p>A compact one gear ratt was designed and put on trial.</p>	
<p>2001-02</p>	<p>Designed and the fabrication of a multi spindle ratt with auto stop motion device was in progress.</p> <p>The improvisation and retrofitting work of motorised ratt for spinning coir yarn was carried out and performance monitored.</p> <p>Designing of mobile defibering unit was in progress.</p> <p>Training was imparted to 12 batches of trainees in maintenance/repair of coir processing machines.</p>	

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	<p>Designed and a prototype was developed for a new system of composting coir pith under air circulation using perforated PVC pipes by which composting period was reduced by 10 days.</p> <p>A prototype of an effluent treatment plant was designed and fabricated for treating the retting effluents within a period of 6 hrs.</p> <p>Under the collaborative project for the development of automatic versatile coir yarn spinning machine with PSG College of Technology, Coimbatore, M/s. 2M Engineers, Bangalore and M/s Dollar Industrial Machines, Pattukottai, the designs for development of Slivering and Spinning machines were completed. M/s 2 M Engineers and M/s. Dollar Industrial Machines completed fabrication of prototype spinning machine. The fabrication of slivering machine was in progress at the PSG College of Technology.</p>	
<p>2002-03</p>	 <p>Fabricated two models of machinery for weaving of geotextiles. The first one was the modified version replacing the wood of the weaving frame to bamboo wood. The second one was a modified version of the handloom which yielded good quality geotextiles of better output.</p> <p>Mild steel metallic handloom for weaving coir geotextiles was designed, fabricated and put to trial.</p> <p>Modified the mobile defibering machine.</p>	

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2003-04	<p>Designed and developed two shaft metallic handloom for weaving coir geotextiles providing autodrive for take up mechanism. A single female worker achieved an output of 10 meters per hour for 1 mtr. width mesh matting.</p> <p>Installed coir pith block and cocolog making machine at CICT, Bangalore.</p> <p>Collaborative project with PSG College of Technology, Coimbatore, for the development of a platform mounted Mobile defibering machine.</p> 	<p>1. Designed and developed 2 shaft metallic handloom for weaving coir geotextiles by women weavers</p>
2004-05	<p>The metallic handloom “Anugraha” designed and fabricated at CCRI was put on trials. On this loom the output of woven geotextile has increased to 10 meters/hour and the quality of the woven geotextiles is consistent throughout the length of matting. A trial production of solo matting was carried out on the “Anugraha” loom. The National Research Development Corporation, New Delhi has conferred the Technology Day Award for the year 2004 to the scientists of CCRI. The award was presented by Shri.K.Sibal, Hon’ble Minister of Science and Technology, Govt. of India, The Honourable President Dr.A.P.J Abdul Kalam was the Chief Guest.</p> <p>To conduct an experiment by using coir geotextile as reinforcement in road construction a demonstration was arranged at CCRI during the Golden Jubilee Celebration of Coir Board in August 2004.</p> <p>The design work of the mat loom by using pneumatic cylinder as prime mover has been started at CCRI. The main frame, the healed frame, winding mechanism, and take up mechanism are completed. The movement of the loom components is by pneumatic force and drudgery is completely eliminated.</p>	

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	<p>Assistance was given for the maintenance work of Dye House and Effluent Treatment Plant. Assistance was also given for Microbiology Section for the preparation of a model for pith composting.</p> <p>The Anugraha handloom designs have been transferred to 12 machinery manufacturing units for an amount of Rs.60,000/-</p> <p>Versatile coir spinning machine under UNDP project was received at CICT during the year. Intensive trials were taken on the machine to produce two ply coir yarn of runnage 240mtr/kg.</p> <p>Machines for producing coir pith blocks and cocologs were procured and erected at CICT. Trials are being taken to produce the materials and the facilities are being extended to the entrepreneurs.</p>	