

Central Coir Research Institute, CCRI

Kriti LIMS Textiles Version

INDUSTRY:

Textiles

LOCATION:

CCRI, Kalavoor, Alleppy, Kerala ,South India

DATABASE:

MS SQL

Kriti LIMS:

Kriti LIMS Version 2.6

Background

The Central Coir Research Institute is one of the prime research centre of Coir Board (Recognised by the Department of Science & Technology, Government of India) established in the year 1959 implements all the S & T programs for the development of Coir Industry

The Central Coir Research Institute, Kalavoor aims for conducting studies related to problems in extraction and further processing of coir fibre into yarn and products. Investigations on various aspects on coir industry covering developments of improved methods of extraction of coir and subsequent processing of coir fibre and yarn, process improvement, product betterment/diversification. Identification of prospective new areas for potential utilization of coir, coir waste and coconut pith etc. and formulation of standards for different coir products, preparation of project schemes for coir extraction and processing/evolving projects for manufacture of mats and mattings on modern systems and organizing improved dyeing facilities, development of new product lines, technical consultancy and field extension service form part of the major areas of research programs of this institute.

A wet processing laboratory was set up in the initial stage and subsequently it was bifurcated into the Dye House and Chemistry & Testing Laboratory in 1984. The Dye House has been looking on bulk dyeing/ bleaching of coir fibre/ yarn by mechanical steam dyeing process. The Chemistry & Testing Laboratory is housed in the new research block of CCRI and is responsible in continually improving the quality of dyeing, bleaching, shade matching through research investigations by adopting appropriate chemicals and technology. It is instrumental in evolving shade cards on Direct and Reacitive dyes and also from Eco-friendly direct and acid dyes. It evolved a low cost bleaching technique for the benefit of the coir industry and engaged in development of a silicate free Hydrogen Peroxide bleaching. It attend to the requirements of the trade in shade matching by conducting lab level dyeing. It is also involved in imparting softness to coir fibre, fire retardency and water repellency to coir and coir products. It has a Physical Testing Laboratory recognized by Bureau of Indian Standards in testing of coir and coir products as per IS standards. Recently it has set up an ASTM laboratory for testing the characterizations of Coir Bhoovastra as per ASTM standards. CCRI is an NABL Accredited Laboratory under ISO 17025.

Challenges

The Analytical Laboratory Division at the CCRI Technical Center in CCRI, needed a modern LIMS that met the corporate standard that is capable to support NABL Accreditation and ISO 17025 Standards for managing their Laboratory Process and Work flow Management and was flexible enough to meet the diverse needs of the testing laboratory. The inhouse Hardware resources and Network are to be utilized for LIMS Implementation. It was clear that a modern, extensible, and flexible workflow-oriented LIMS had to be implemented within a time frame of six months from the date of awarding of the Contract.

System Sought

The Research and Testing Center processes a large number of samples of coir fibre/ yarn ,other coir products, Dyes and Chemicals etc. The LIMS needed to be robust enough to handle the large sample load, and require little maintenance from the Laboratory staff resources.

The total Laboratory Process to be workflow driven, easily configurable and manageable. The solution must be interfaced to transform the LIMS data to MS Excel and MS Word.

System Selected

Several companies made presentations, and Kriti LIMS was selected after following the Government Tender Process and a test run of the software in the Analytical Laboratory .The selection was based on the developmental capabilities of the LIMS, and the inherent extensibility of Kriti LIMS, which would allow for implementation of the proprietary analysis package.

For more information on Kriti products and services, contact us at www.kritilims.com

System Delivered

The Kriti LIMS went live in March 2007, with the total workflow management of the Analytical Laboratory. The system currently processing 15,000 samples per year, yielding in excess of 1,50,000 determinations on these samples. This is the result of more than 12,000 internal jobs at one site.:

Key Benefits

Once the LIMS was implemented, the staff experienced and appreciated the flexibility of Kriti LIMS as a multi-faceted laboratory development tool. Since the initial successful implementation, in fact, CCRI Research and Training Center has implemented the total functionality of the Laboratory through LIMS. They include:

A Business Metric and Sample Tracking System, which is not typically a LIMS function.

A Non Conformance Reports Database used to track products or processes which do not meet conformance requirements.

The Delivery of Test Reports in Electronic Format further reduced the distribution cost and time.

The integrated LIMS had given the benefit of Sample Tracking, Work Allocation, Report Printing, Invoice Printing, Revenue Accounting and all other functions from the solution that has saved substantial Time and Effort of Laboratory Managers, Scientist and Customers.