



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM**

A DISSERTATION REPORT ON

**“DEVELOPMENT OF BAMBOO/SILK BLENDED YARN
AND SEAMLESS KNITTED GARMENT”**

DEPARTMENT OF TEXTILE TECHNOLOGY

[Submitted in partial fulfillment of 4th Semester M.Tech. in Textile Technology]

By

SANDEEP D N
(1SK08JTT03)

Under the Guidance of:

Shri A. V. SHIVAPRAKASH

M.Tech. (Textiles), M.I.S.T.E.,
Asst. Professor
Govt. S.K.S.J.T. Institute
Bangalore-560001

Principal:

Prof. Dr. S.S. RAMATAL

M.Tech. (Textiles) Ph.D.,
M.I.S.T.E.,
Govt. S.K.S.J.T. Institute
Bangalore-560001

External Guides:

Shri Mr. A. V. K. VIJAYAN BABU

General Manager (R&D)
Gokak Mills Ltd
Gokak Falls-591308

Shri V. H. MAHARADDI

Scientist C
K.S.S.R.D. Institute
Bangalore-560062

**GOVT. SRI KRISHNARAJENDRA SILVER JUBILEE
TECHNOLOGICAL INSTITUTE**

K.R.Circle, Bangalore-560001.

2009 - 2010

ABSTRACT

Clothing is one of the basic necessities of human beings including food and shelter. Now the cloth has not only remained as a means of covering the body but become a Fashion, a Dignity. People are looking for more comfortable cloths which enhance their personality. One way of achieving this is by blending of fibres having different characteristics which provide the combined effect in resultant yarn and fabric produced.

The main objective of the present work is to blend bamboo, a regenerated fibre from bamboo plant; and silk, an animal protein fibre secreted by silkworm. An attempt is made to develop Bamboo/Silk blend yarn on short staple spinning. In this work yarns with 50/50, 75/25 and 25/75 blend ratio are produced along with 100% bamboo and 100% silk. Suitable process parameters for yarn on short staple spinning were developed. The yarns thus produced, were tested for various physical properties. The results are compared in order to establish some of the better properties of Silk with Bamboo.

The above produced yarn was utilised in the production of knitted fabric samples with Flat Bed Knitting Technology and analysed for fabric properties. The work also incorporates development of garment samples out of the above blended yarn.

Key Words: Bamboo fibres, Silk Fibres, Short Staple Spinning, Blending, Blend ratio, Anti-bacterial, Flat Knitting, Single jersy, Garments.